

# Sustainability Report 2016



endesa



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# Letter from the Chairman



**Borja Prado Eulate**  
Chairman of ENDESA

**G4-1**

It is my pleasure to present to you ENDESA's sixteenth Sustainability Report, corresponding to the 2016 financial year, the result of strict compliance with the Company's commitment to transparency in economic, social, environmental and ethical responsibility.

During 2016 there have been a number of events of significant importance for our Company, due to both the progress within the company and to external occurrences with transversal impact. Two fundamental events to which I would like to devote special attention in this report are the consolidation of 100% of Enel Green Power España by ENDESA and the signing of the Paris Agreement for the Reduction of Emissions.

The purchase of the entirety of Enel Green Power España, whose assets are now managed directly by the newly formed Renewables Directorate-General at ENDESA, have contributed to our generation capacity an installed power of 1,700 MW from renewable sources in Spain and Portugal, mostly wind-generated, and a portfolio of projects of 700 MW. In this way, we have established the basis for a more sustainable growth, strengthening our presence in the Iberian market with an attractive portfolio of renewable assets. This purchase increases our growth potential through clean power in the coming situation of decarbonisation of the economy.

This new situation is reflected in the signing of the Paris Agreement, by which the great majority of countries belonging to the United Nations Framework Convention have committed themselves to limiting global warming. This historic event has marked the preparation of ENDESA's new Industrial Plan, presented this year, which will guide us toward a new emission-free energy model in the year 2050 and by which the customer plays the

leading role. This new model entails a great challenge, on both a technological and financial level, which we will undertake by means of the promotion of efficiency, digitalisation and innovation.

This new energy outlook places sustainability in a key position in the business model, where new opportunities arise and new challenges are established, both for the electricity companies and for society in general. In this context, digitalisation must act as the leverage to enable improvements in asset management, response to our customers' requirements, and particularly, in the way we relate with them.

To achieve this, digitalisation must become part of our internal culture, to place us at the forefront of change, enabling us to exploit new business models by optimising those already in force, using the development of new technologies to transform it into a competitive advantage.

This structural change in the sector must not stray from the strict compliance with the standards of corporate integrity. These standards are materialised in our Ethics Code, our Policies and our Codes of Conduct.

Through these, once again, ENDESA has renewed its commitment to the Ten Principles of the Global Compact, and acknowledges the value provided by this international reference framework in the making of business decisions, present in ENDESA's internal strategy and policy since its joining in 2002.

In this way, ENDESA endeavours to be an indispensable partner for social-economic progress in the society that it serves, carrying out its business activity under a perspective of creation of value. A position through which it manages to respond to the expectations of the community, while efficiently and sustainably generating profit for its investors.

There is no doubt in my mind that ENDESA will lead this new era in the electricity sector, facing up to the challenges of our time due to our having an outstanding human team and the necessary experience and capability to guide us to success.

An exciting challenge is approaching, and ENDESA is ready to face it.

A handwritten signature in black ink, appearing to read 'B. Prado Eulate', with a stylized flourish at the end.

**Borja Prado Eulate**  
Presidente de ENDESA

# Letter from the CEO



**José D. Bogas Gálvez**  
CEO of ENDESA

## G4-1

The energy sector is in a state of rapid, unstoppable development. It is becoming ever clearer that phenomena such as the need to move toward a low-carbon economy, technological progress or the resulting change in customers' requirements are changing our sector in depth. Changes that require greater attention to be paid to sustainability, thus to respond successfully to the energy challenges facing us. We are doubtless living a real revolution in the traditional business model of electricity companies.

At ENDESA we are aware of this new context, and for this reason, on last November 23rd we presented the new 2017-2019 Strategic Plan, to lay the foundations for the promotion of a more sustainable energy model. To this end, we have defined the roadmap to achieving the decarbonisation of our energy mix in 2050, to be performed progressively while constantly guaranteeing safety and quality of supply. Furthermore, we have identified two fundamental items that will act as catalysts in the transformation of the business model: digitalisation and a greater customer focus.

ENDESA's new strategy is supplemented via the lines of action defined in ENDESA's new Sustainability Plan which, while also prioritising decarbonisation, digitalisation and customer service, identifies other fundamental priorities to achieve responsible business management. These are the responsible relationship with our communities, the furtherance of human capital, environmental sustainability, responsible supply chain management and corporate integrity. We have thus defined over 100 specific, quantitative objectives which will act as a roadmap to continue to move forward in the furtherance of a more sustainable business model.

ENDESA has been moving in this direction throughout 2016, and I would therefore like to highlight some of the most significant events that occurred during the year.

In 2016, ENDESA moved forward in the digitalisation of its distribution grid, reaching a figure of 79% of its meters included in the remote management system, promoting a much more active management of customers' energy requirements. Likewise, the number of digital customers surpassed 1.6 million in 2016, a figure we hope to double in the coming three years.

Customer service is one of our management priorities, and therefore in 2016 ENDESA continued to implement the commercial excellence plan which has enabled us to reach a level of customer satisfaction 2% higher than that of our competitors.

For ENDESA, its people are a fundamental asset of the Company. For this reason, in 2016 we implemented several lines of action oriented toward promoting professional development, meritocracy, diversity and the reconciliation of work and family life. Furthermore, to ensure that business activity is carried out in compliance with the strictest safety standards, during 2016 we increased our occupational health and safety surveillance activities, managing to reduce the number of accidents by almost 20% in comparison with 2015.

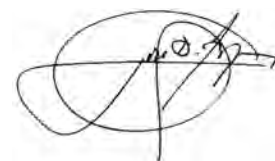
During 2016 ENDESA maintained its firm commitment to the development of local communities via a standpoint of creation of shared value, whose objective is to combine the company's interests with the priorities and requirements of local communities, thus generating value for the business and for the society it serves, carrying this out throughout the company's value creation chain. To this end, during 2016 we invested over 12.3 million euros on the execution of 200 sustainability projects that have benefited almost 900,000 persons.

On the other hand, ENDESA has continued to move forward in its commitment to the struggle against climate change and the minimisation of its environmental footprint. As a result, we have managed to reduce absolute CO2 emissions by 43% in comparison with 2005. We shall continue to move forward along this path, establishing long-term goals that entail reductions of over 60% in 2030 and 80% in 2040.

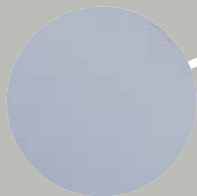
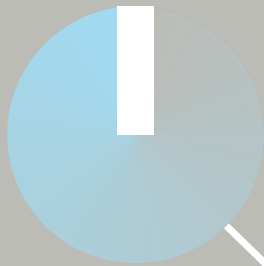
The results achieved establish us as a company of reference for those investors who are concerned not only with short-term financial results but also with our long-term strategy and performance. Proof of this has been the renewal of ENDESA in the principal international sustainability indices, such as the Dow Jones Sustainability Index, Euronext Vigeo, STOXX Global ESG leaders and the Carbon Disclosure Project.

In short, we are living a new worldwide context which requires us to move towards a new, more sustainable, more inclusive, economic and social model. In this regard, the United Nations Sustainable Development Objectives and the Paris Agreement to Fight Climate Change represent a unique opportunity for companies firmly committed to sustainable development to become actively involved in the search for sustainable solutions focused on our own *core business*. With this in mind, in 2016 we presented to our investors ENDESA's contribution to the Sustainable Development Objectives for the next three years, focused on the struggle against climate change, access to energy and innovation, to transform the future of energy.

There is no doubt in my mind that with the exceptional human team at its disposal and the knowledge and business culture it possesses, ENDESA will be able to provide a valuable contribution to the society to which it belongs and to whom it owes its existence, becoming a key player in the construction of a more sustainable energy model.



**José D. Bogas Gálvez**  
Consejero Delegado de ENDESA







1\_Getting to know ENDESA

# 1. Who we are

G4-3

## 1.1. ENDESA in figures

G4-9 EU1 EU2 EU3

|   | 2014           | 2015           | 2016           |
|---|----------------|----------------|----------------|
| GROSS INCOME FROM OPERATIONS (EBITDA) (millions of euros) | 3,090          | 3,039          | 3,432          |
| PROFITS AFTER MINOR TAXES (millions of Euros)             | 950            | 1,086          | 1,411          |
| SHARE CAPITAL (MILLIONS OF EUROS)                         | 1,271          | 1,271          | 1,271          |
| NON CURRENT FINANCIAL DEBT (MILLIONS OF EUROS)            | 6,083          | 4,680          | 4,223          |
| <b>Workforce</b>  |                |                |                |
| <b>Spain and Portugal</b>                                 | <b>10,500</b>  | <b>10,000</b>  | <b>9,694</b>   |
| Other countries   | 0              | 0              | 0              |
| <b>Capacity (MW)</b>                                      |                |                |                |
| <b>Spain and Portugal</b>                                 | <b>22,677</b>  | <b>22,164</b>  | <b>23,691</b>  |
| Hydroelectric   | 4,759          | 4,765          | 4,765          |
| Classic power stations <sup>1</sup>                       | 8,798          | 8,278          | 8,130          |
| Nuclear power stations <sup>1</sup>                       | 3,443          | 3,443          | 3,443          |
| Combined cycles   | 5,677          | 5,678          | 5,678          |
| Renewables and Cogeneration <sup>5</sup>                  | –              | –              | 1,675          |
| <b>Production (GWh)</b>                                   |                |                |                |
| <b>Spain and Portugal<sup>2</sup></b>                     | <b>69,681</b>  | <b>73,061</b>  | <b>69,831</b>  |
| Hydroelectric   | 8,778          | 7,176          | 7,173          |
| Classic power stations <sup>1</sup>                       | 30,602         | 32,634         | 28,100         |
| Nuclear power stations <sup>1</sup>                       | 24,762         | 25,756         | 25,921         |
| Combined cycles   | 5,539          | 7,495          | 7,425          |
| Renewables and Cogeneration <sup>5</sup>                  | –              | –              | 1,212          |
| <b>Sales (GWh)</b>  |                |                |                |
| <b>Spain and Portugal</b>                                 | <b>93,928</b>  | <b>92,899</b>  | <b>93,490</b>  |
| Fixed price market  | 16,560         | 14,934         | 13,815         |
| Liberalised market <sup>3</sup>                           | 77,368         | 77,965         | 79,675         |
| <b>Number of customers (thousands)</b>                    |                |                |                |
| <b>Spain and Portugal</b>                                 | <b>11,206</b>  | <b>11,112</b>  | <b>11,016</b>  |
| Fixed price market <sup>4</sup>                           | 6,663          | 6,029          | 5,593          |
| Liberalised market <sup>3</sup>                           | 4,543          | 5,083          | 5,423          |
| <b>Power distributed (GWh)</b>                            |                |                |                |
| <b>Spain and Portugal</b>                                 | <b>110,945</b> | <b>114,190</b> | <b>115,602</b> |

<sup>1</sup> Magnitude consolidated by ENDESA.

<sup>2</sup> Data measured at the power plant bus bars.

<sup>3</sup> For the sake of coherence with the economic data on this business provided in this report, includes the sales performed by ENDESA Energy to customers in European countries outside the Iberian market.

<sup>4</sup> Tariff customers. Toll customers not included.

<sup>5</sup> Data since the date of takeover of Enel Green Power España by ENDESA, 27th July 2016.

## 1.2. Main activities

G4-4

ENDESA, S.A. was formed on 18th November 1944 and its registered address is in Madrid, at 60, Ribera del Loira street.

ENDESA, S.A. and its subsidiary companies (ENDESA or the Company) carry out their activities in the electricity and gas business, mainly in the Spanish and Portuguese markets. Likewise, to a lesser extent, ENDESA sells electricity and gas in other European markets as well as value-added products and services related to its main business area.

The organization is focused on the activities of generation, distribution and marketing, each of these including electricity and, where applicable, gas activities.

- Conventional generation in the non-Peninsular Territories is governed differently, to respond to the specificities derived from their territorial location, and here the price is regulated. Generation with renewable energy in the non-Peninsular Territories yields incentives to investment due to a reduction in generation costs.

- > **Marketing of electricity, gas and value added products and services (VAPS):** Marketing activity consists of the sale of energy in the market, and the sale of value added products and services (VAPS) for customers. Sales activities are liberalised.
- > **Electricity distribution:** The aim of electrical power distribution activities is for electricity to be transferred to the points of consumption. Distribution activities are regulated.

## 1.3. Main markets

G4-4 G4-6 G4-8

ENDESA, S.A. carries out electricity generation, distribution and sales activities mainly in Spain and Portugal and, to a lesser degree, from its platform in Spain and Portugal, it sells gas and electricity in other European markets: Germany, France, Belgium and Holland in particular.

The markets and the activities performed by ENDESA are described below:

### 1.3.1. Spanish market

- > **Generation:** ENDESA carries out electrical power generation activities in the Peninsula and in non-Peninsular Territories, (the island systems of the Balearics and the Canaries, and the cities of Ceuta and Melilla).
  - Conventional generation activities in the Peninsula are liberalised activities, while generation with renewable energy has specific compensation.

### 1.3.2. Portuguese market

- > **Power Generation:** The production of electricity in Portugal is carried out in a competitive environment.
- > **Marketing of electricity and gas:** This activity is liberalised in Portugal.

## 1.4. Organisational structure

G4-4 G4-7 G4-17

ENDESA, S.A.'s activity is structured by business lines to act quickly in the markets where it operates and to consider the needs of its customers in the territories and businesses in which it operates.

For the organisation of its business lines, ENDESA works primarily through the following companies:

## 1.4.1. Power Generation: ENDESA Generación

G4-7 G4-17

ENDESA Generación, S.A.U. holds, among others, shares in Gas y Electricidad Generación, S.A.U. (100%), in Unión Eléctrica de Canarias Generación, S.A.U. (100%), in ENEL Green Power España, S.L. (EGPE) (100%), and a 50% stake in Nuclenor, S.A., the title holding company of the Nuclear Power station located in Santa María de Garoña.

On 31<sup>st</sup> December 2016, ENDESA's total net installed power in Spain reached 21,069 MW at ordinary regime, of which 16,495 corresponded to the Peninsular electrical grid and 4,574 to the non-Peninsular Territories (Balearics, Canaries, Ceuta and Melilla). On that date, the net installed power in renewables was 1,675 MW.

Generation by ENDESA in Spain reached a net total production of 69,831 GWh in the 2016 financial year.

## 1.4.2. Renewable energy: ENDESA Renovables

G4-13

On 27<sup>th</sup> July 2016, ENDESA Generación S.A.U., a company totally owned by ENDESAS.A.(ENDESA), purchased from

Enel Green Power International B.V. 60% of the share capital of Enel Green Power España, S.L. (EGPE), a company of which ENDESA previously owned 40% of the share capital.

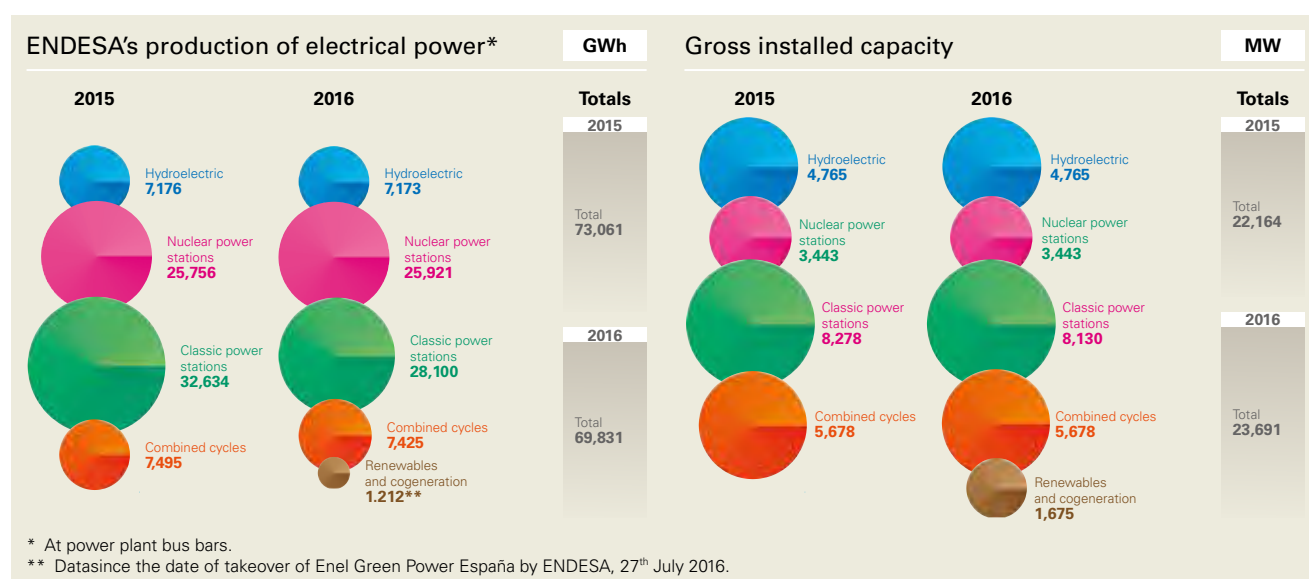
Enel Green Power España, S.L. (EGPE) is a company devoted, directly or through subsidiaries, to the production of electrical power generated within Spanish territory from renewable sources, and which currently has approximately 91 wind, hydro and solar facilities, with a total installed capacity of 1,675 MW and a production of 3,704 GWh.

## 1.4.3. Power distribution: ENDESA Red

G4-7 G4-17

Among others, this company incorporates ENDESA Distribución Eléctrica, S.L.U. (100%), which undertakes the regulated activities of electrical distribution, and ENDESA Ingeniería, S.L.U.(100%).

At 31<sup>st</sup> December 2016, ENDESA distributes electricity in 27 Spanish provinces in ten autonomous communities (Andalusia, Aragon, Balearic Islands, Canary Islands, Castile and León, Catalonia, the Valencian Community, Extremadura, Galicia and Navarre) covering a total area of 194,687 km<sup>2</sup> and a population of nearly 22 million inhabitants. The number of customers with contracts to access ENDESA's distribution grids surpassed 12 million at that date and the total power distributed via ENDESA's grids, measured at the power plant bus bars, reached 115,602 GWh during the 2016 financial year.



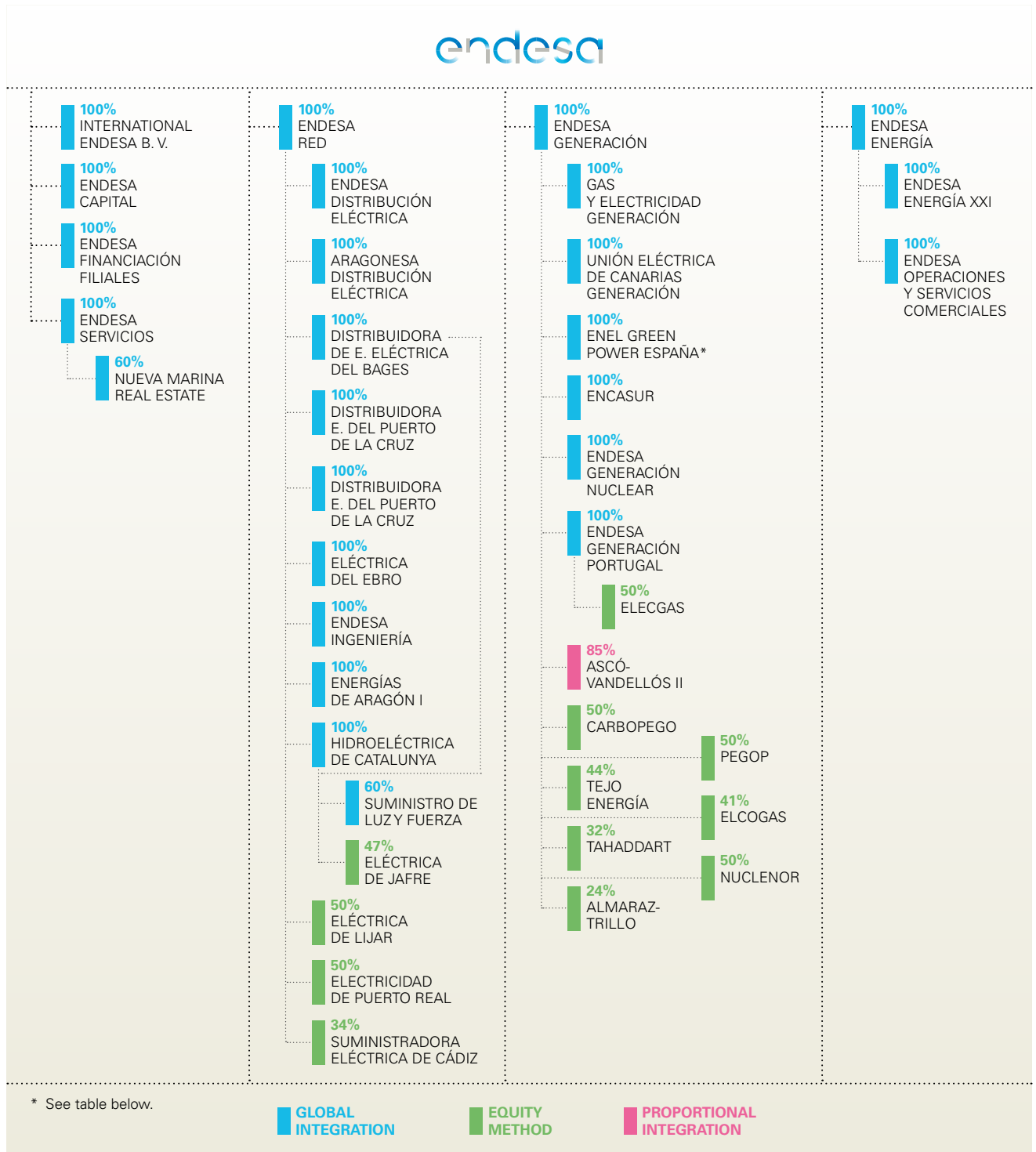
## 1.4.4. Marketing of energy: ENDESA Energía

G4-7 G4-17

ENDESA Energía, S.A.U. holds stakes in the companies ENDESA Energía XXI, S.L.U. (100%), a Company operating as a supplier of reference for ENDESA, and in ENDESA Operaciones y Servicios Comerciales, S.L.U. (100%), whose

function it is to provide commercial services related to the supply of electrical power. ENDESA Energía, S.A.U. performs marketing activities in the liberalised markets of Germany, Belgium, France, Holland and Portugal.

During 2016, ENDESA supplied 93,490 GWh to 11 million supply points in the electricity market. The total volume of gas marketed by ENDESA during 2016 reached 78,129GWh, and at 31<sup>st</sup> December 2016, the portfolio of customers in the conventional natural gas market consisted of 1.5 million supply points.



|   |  |   |   |   |
|---|--|---|---|---|
| <div> <div>100%</div> <div>ENEL GREEN<br/>POWER ESPAÑA</div> </div>                 |  |   |   |   |
| <div>100%</div> <div>ALMUSSAFES<br/>SERVICIOS<br/>ENERGÉTICOS</div>                 | <div>80%</div> <div>ENERGÍAS<br/>ESPECIALES DE<br/>PEÑA ARMADA</div> | <div>60%</div> <div>SOCIEDAD<br/>EÓLICA<br/>LOS LANCES</div>          | <div>50%</div> <div>EÓLICAS<br/>DE TENERIFE</div>                               | <div>33%</div> <div>CENTRAL<br/>HIDRÁULICA<br/>GÚÉJAR-SIERRA</div>                    |
| <div>100%</div> <div>ENERGÍAS<br/>DE ARAGÓN II</div>                                | <div>80%</div> <div>EÓLICAS<br/>DE AGAETE</div>                      | <div>58%</div> <div>PARQUE EÓLICO<br/>SIERRA<br/>DEL MADERO</div>     | <div>50%</div> <div>CONSORCIO<br/>EÓLICO MARINO<br/>CABO DE<br/>TRAFALGAR</div> | <div>33%</div> <div>PROYECTOS<br/>UNIVERSITARIOS<br/>DE ENERGÍAS<br/>RENOVABLES</div> |
| <div>100%</div> <div>ENERGÍAS<br/>ESPECIALES<br/>DEL ALTO ULLA</div>                | <div>80%</div> <div>PARQUE EÓLICO<br/>CARRETERA<br/>DE ARINAGA</div> | <div>56%</div> <div>PLANTA EÓLICA<br/>EUROPEA</div>                   | <div>45%</div> <div>SANTO ROSTRO<br/>COGENERACIÓN<br/>(in liquidation)</div>    | <div>33%</div> <div>ERECOSALZ</div>   |
| <div>100%</div> <div>PARQUE EÓLICO<br/>A CAPELADA</div>                             | <div>77%</div> <div>ENERGÍAS<br/>ESPECIALES<br/>DE CAREÓN</div>      | <div>55%</div> <div>EÓLICAS DE<br/>FUENCALIENTE</div>                 | <div>45%</div> <div>TERMOTEC<br/>ENERGÍA<br/>(in liquidation)</div>             | <div>33%</div> <div>OXAGESA<br/>(in liquidation)</div>                                |
| <div>100%</div> <div>PARQUE EÓLICO<br/>ARAGÓN</div>                                 | <div>76%</div> <div>PARQUE EÓLICO<br/>MONTES DE<br/>LAS NAVAS</div>  | <div>55%</div> <div>ENERGÍAS<br/>ALTERNATIVAS<br/>DEL SUR</div>       | <div>40%</div> <div>UFEFYS<br/>(in liquidation)</div>                           | <div>30%</div> <div>HIDROELÉCTRICA<br/>DE OUROL</div>                                 |
| <div>100%</div> <div>PROMOCIONES<br/>ENERGÉTICAS<br/>DEL BIERZO</div>               | <div>75%</div> <div>PARQUE EÓLICO<br/>DE BARBANZA</div>              | <div>52%</div> <div>PARQUE EÓLICO<br/>PUNTA DE TENO</div>             | <div>40%</div> <div>BOIRO ENERGÍA</div>   | <div>30%</div> <div>PARC EOLIC<br/>LA TOSSA-<br/>LA MOLA D'EN<br/>PASCUAL</div>       |
| <div>100%</div> <div>SERRA<br/>DO MONCOSO-<br/>CAMBÁS</div>                         | <div>74%</div> <div>EXPLOTACIONES<br/>EÓLICAS DEL<br/>PUERTO</div>   | <div>51%</div> <div>AGUILÓN 20</div>                                  | <div>40%</div> <div>DEPURACIÓN<br/>DESTILACIÓN<br/>RECICLAJE</div>              | <div>30%</div> <div>PARC EOLIC<br/>LOS ALIGARS</div>                                  |
| <div>96%</div> <div>SISTEMAS<br/>ENERGÉTICOS<br/>MAÑÓN<br/>ORTIGUERA</div>          | <div>70%</div> <div>EXPLOTACIONES<br/>EÓLICAS<br/>DE ESCUCHA</div>   | <div>51%</div> <div>EÓLICA DEL<br/>NOROESTE</div>                     | <div>40%</div> <div>EÓLICAS DE<br/>FUERTEVENTURA</div>                          | <div>30%</div> <div>PRODUCTORA<br/>DE ENERGÍAS</div>                                  |
| <div>90%</div> <div>EXPLOTACIONES<br/>EÓLICAS SIERRA<br/>COSTERA</div>              | <div>67%</div> <div>VIRULEIROS</div>                                 | <div>51%</div> <div>EÓLICA VALLE<br/>DEL EBRO</div>                   | <div>40%</div> <div>EÓLICA DEL<br/>PRINCIPADO</div>                             | <div>28%</div> <div>SISTEMA<br/>ELÉCTRICO<br/>DE CONEXIÓN<br/>VALCAIRE</div>          |
| <div>90%</div> <div>EXPLOTACIONES<br/>EÓLICAS SIERRA<br/>LA VIRGEN</div>            | <div>67%</div> <div>ENERGÍAS<br/>DE GRAUS</div>                      | <div>51%</div> <div>HISPANO<br/>GENERACIÓN DE<br/>ENERGÍA SOLAR</div> | <div>40%</div> <div>YEDESA<br/>COGENERACIÓN<br/>(in liquidation)</div>          | <div>25%</div> <div>CORPORACIÓN<br/>EÓLICA DE<br/>ZARAGOZA</div>                      |
| <div>90%</div> <div>PARAVENTO</div>   | <div>66%</div> <div>PARQUE EÓLICO<br/>DE SANTA LUCÍA</div>           | <div>50%</div> <div>PARQUE EÓLICO<br/>BELMONTE</div>                  | <div>40%</div> <div>EÓLICAS DE<br/>LANZAROTE</div>                              | <div>20%</div> <div>COGENERACIÓN<br/>EL SALTO<br/>(in liquidation)</div>              |
| <div>90%</div> <div>PARQUE<br/>EÓLICO FINCA<br/>DE MOGÁN</div>                      | <div>65%</div> <div>EXPLOTACIONES<br/>EÓLICAS<br/>SASO PLANO</div>   | <div>50%</div> <div>SALTO DE<br/>SAN RAFAEL</div>                     | <div>38%</div> <div>COMPAÑÍA<br/>EÓLICA TIERRAS<br/>ALTAS</div>                 |   |
| <div>85%</div> <div>PRODUCTOR<br/>REGIONAL<br/>DE ENERGÍA<br/>RENOVABLE</div>       | <div>65%</div> <div>SOCIEDAD<br/>EÓLICA<br/>DE ANDALUCÍA</div>       | <div>50%</div> <div>EÓLICAS DE<br/>LA PATAGONIA</div>                 | <div>37%</div> <div>MINICENTRALES<br/>DEL CANAL<br/>IMPERIAL-<br/>GALLUR</div>  |   |
| <div>83%</div> <div>PRODUCTOR<br/>REGIONAL<br/>DE ENERGÍAS<br/>RENOVABLES III</div> | <div>65%</div> <div>ENEL GREEN<br/>POWER<br/>GRANADILLA</div>        | <div>50%</div> <div>ENERGÍAS<br/>ESPECIALES<br/>DEL BIERZO</div>      | <div>36%</div> <div>SOTAVENTO<br/>GALICIA</div>                                 |   |
| <div>82%</div> <div>PARQUE EÓLICO<br/>DE SAN ANDRÉS</div>                           | <div>60%</div> <div>EÓLICOS<br/>DE TIRAJANA</div>                    | <div>50%</div> <div>SOCIEDAD<br/>EÓLICA<br/>EL PUNTAL</div>           | <div>33%</div> <div>TOLEDO PV</div>   |   |
| <div> <div>GLOBAL<br/>INTEGRATION</div> <div>EQUITY<br/>METHOD</div> </div>         |  |   |   |   |



## 1.4.4.1. Energy business in Portugal

G4-7 G4-17

ENDESA's presence in the Portuguese electricity system focuses mainly on electricity generation and sales activities in the liberalised market.

The assets shared by ENDESA in 2016 have an installed power at ordinary regime of 1,483 MW distributed via its share in Tejo Energy (628MW) and Elecgas (855 MW).

ENDESA has a 43.75% stake in Tejo Energy, the company owning the coal power plant, and 50% in Elecgas, the company owning the gas power plant, both located in Pego. In turn, ENDESA owns 100% of the power produced by Elecgas due to the Tolling contract in force between the two parties.

The Pego coal and gas power plants generated 3,629 GWh and 1,141 GWh respectively (2,158 GWh corresponding to ENDESA's share), representing 9.7% of Portugal's total electricity consumption.

Maintenance of the coal power plant and combined cycle at Pego is under the charge of Pegop, in which ENDESA holds a 50% stake. It also holds a 50% stake in Carbopego, the company which purchases the coal for the power plant.

Meanwhile, during 2016 ENDESA received 11.6 million euros in dividends from all the companies shared.

The liberalization process continued to progress in Portugal during 2016 in the Large Customer (Medium Voltage) and Company (Special Low Voltage) segments. The power supplied in the liberalised market reached 90% of Portugal's total consumption.

ENDESA continues to be the second largest operator in the Portuguese liberalised electricity market, with a share of nearly 17%. By the end of the year, ENDESA had supplied 6,885 GWh to over 173,000 supply points.

Notwithstanding this strong position in the marketing of electricity, in the Portuguese gas market ENDESA supplied 3.7 TWh to final consumers, 36% more than in 2015. In addition, ENDESA continued with its commitment to the marketing of Value Added Products and Services.

During 2016, ENDESA has served almost 170,000 supply points in Portugal, distributed as follows: almost 6,000 Medium Voltage points, 4,500 at Special Low Voltage and over 159,000 Normal Low Voltage points. The electricity supplied in 2016 reached a total value of almost 7,000 GWh. With regard to gas, almost 3,700 GWh were supplied, and over 20,000 supply points were active at the close of the year.

## 1.4.4.2. Business in other countries

G4-7 G4-17

ENDESA is present in Morocco through a 32% stake in Energie Electrique de Tahaddart, a company that owns a 384 MW combined cycle power plant located to the north of the town of Asilah, near the river Tahaddart. In 2016, production of the plant reached 2,609 GWh (835 GWh corresponding to ENDESA's 32% stake).

In 2016, Energie Electrique de Tahaddart distributed the dividend for the income of 2015, of which ENDESA received 4.7 million euros.

In France, ENDESA supplied 14,557 GWh of gas during 2016, 41% more than the previous year. At the close of the year, there were almost 1,600 active gas supply points.

In Germany, ENDESA supplied 2,043 GWh of electricity and 86 GWh of gas, with a total of over 560 active supply points.

In Holland, the Company supplied 774 GWh of electricity and 1,143 GWh of gas, with almost 150 active supply points for electricity and over 90 for gas at the close of the year.

Finally, in Andorra, ENDESA supplied 279 GWh of electrical power in 2016.

## 2. Commitment to a sustainable energy model

### 2.1. The OPEN POWER strategic statement

#### G4-DMA General management focus

ENDESA, like all companies belonging to the Enel Group, has always been at the forefront of development in the energy sector, sending safe, affordable power to millions of persons all over the world.

Aware of the profound change currently experienced by industry, the Group is immersed in a new, more open, participative and digital era of energy. This strategic standpoint is summed up in the Open Power concept.

Open Power is our platform for growth, a combination of the strength of our global organisation with the opportunities of an open, connected world. It therefore constitutes our mission, our vision and our values.

The goal of Open Power is to give access to energy to more people, to open up the world of energy to new technologies,





to open up energy management to people, to open up the possibility of new uses for energy and to open ourselves to a greater number of alliances.

## 2.2. Commitment to Sustainability

In line with the strategic Open Power statement, ENDESA, as part of the Enel Group, has placed environmental, social and economic sustainability at the centre of its business culture and is contributing to the current evolution of the energy system with a sustainable development programme based on the exchange of value creation within and beyond the Company.

Sustainability, which must be achieved via processes of innovation, is the focal point of the Open Power strategic statement.

Therefore, since 2015 ENDESA has followed a new Sustainability policy whose aim is to incorporate the Enel Group's Open Power statement and to establish the bases to successfully overcome the energy challenges facing modern society.

The future commitments included in the policy constitute the guidelines and basis of ENDESA's behaviour in the man-

agement of its business activity, and compliance with these is expressly driven by Company Management, concerns its employees, contractors and suppliers, and is open to assessment by third parties. Likewise, the Board of Directors, via the Auditing and Compliance Committee, supervises the correct implementation of the principles of the policy throughout the Company's entire value creation chain.

The implementation of this policy is developed from ENDESA's various Sustainability Plans.

## 2.3. Compromiso con la Agenda de Naciones Unidas

G4-15 | G4-DMA Investment DDHH | G4-DMA Child labour  
G4-DMA Forced labour | G4-HR6 | G4-DMA No Discrimination  
G4-DMA Investment

ENDESA assumes the principal international reference frameworks promoted by the United Nations for sustainable management as a key player in the construction process of a new global, sustainable, energy model. It therefore maintains a firm commitment to the Ten Principles of the Global Compact, the Guiding Principles on Business and Human Rights, and to the Seventeen Sustainable Development Goals.

### Our future commitments

|  |   |   |
|--|---|---|
|  <p><b>our conduct</b></p> <p>Commitment to good governance, transparency and ethical behaviour.</p>  |  <p><b>our stakeholders</b></p> <p>Commitment to the creation of value and profit.</p>                       |  <p><b>our customers</b></p> <p>Commitment to digital quality, Commercial excellence and energy efficiency in consumption.</p>             |
|  <p><b>our people</b></p> <p>Commitment to personal and professional development, diversity &amp; conciliation, Occupational health and safety.</p> |  <p><b>our associates</b></p> <p>Commitment to the active involvement of associates with sustainability.</p> |  <p><b>society</b></p> <p>Commitment to social-economic development of the communities in which we operate.</p>                            |
|  <p><b>the environment</b></p> <p>Commitment to the reduction of the environmental footprint, and protection of the surroundings.</p>               |  <p><b>innovation</b></p> <p>Commitment to technological innovation and the scope of services.</p>           |  <p><b>institutions</b></p> <p>Commitment to the development of public-private alliances for the promotion of sustainable development.</p> |

2000

### The Ten Principles of the Global Compact

#### PRINCIPLE 10

Businesses should work against corruption in all its forms, including extortion and bribery.

#### PRINCIPLE 9

Businesses should encourage the development and diffusion of environmentally friendly technologies.

#### PRINCIPLE 8

Businesses should undertake initiatives to promote greater environmental responsibility.

#### PRINCIPLE 7

Businesses should support a precautionary approach to environmental challenges.

#### PRINCIPLE 6

Businesses should uphold the elimination of discrimination in respect of employment and occupation.

#### PRINCIPLE 1

Businesses should support and respect the protection of internationally proclaimed human rights, within the scope of their influence.

#### PRINCIPLE 2

Businesses should make sure that they are not complicit in human rights abuses.

#### PRINCIPLE 3

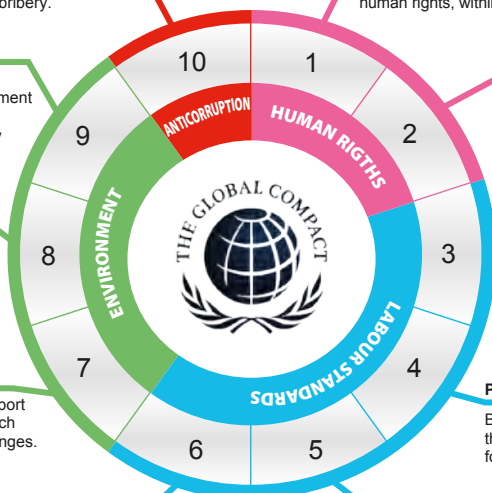
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

#### PRINCIPLE 4

Businesses should uphold the elimination of all forms of forced and compulsory labour.

#### PRINCIPLE 5

Businesses should uphold the abolition of child labour.



Integration of the Principles in the Code of Conduct and internal regulations

Preparation of an internal mechanism to guarantee compliance with the Ten Principles

2011

### The Guiding Principles on Business and Human Rights



### Protect, Respect and Remedy

Preparation of the Human Rights Policy

Development of Due Diligence in Human Rights

2015

### The 17 Sustainable Development Goals



The Enel Group's commitments and contributions by ENDESA

Business and Sustainability strategy in line with the 2030 Agenda

## 2.3.1. The Ten Principles of the Global Compact

ENDESA was one of the first Spanish companies to adopt the Global Compact, doing so in 2002, incorporating its principles in its Corporate Integrity standards and Sustainability Policy and Strategy. ENDESA's corporate conduct in all the territories where it is present is totally in line with this commitment due to its extension to all areas of influence.

Since the launching of the initiative, ENDESA has reaped benefits from its voluntary adherence to the Global Compact, considering this a valuable tool to further integrate sustainability in all of the Group's management areas, reinforcing ENDESA's firm commitment to principles of sustainability. This performance has been viewed positively by our stakeholders, as well as by sustainable investment funds and sustainability rating agencies. This helps encourage dialogue and collaboration between all the social agents, for which reason the Global Compact is considered to be a highly useful tool. Moreover, by belonging to the Global Compact, ENDESA is able to share experiences with other companies committed to sustainability, secure in the knowledge that it is doing so within an internationally-recognised framework backed by the United Nations Organization.

The Global Compact requires that participating companies draw up an Annual Progress Report, detailing the work carried out for the inclusion of the 10 principles into the business strategies and operations; this must be public and must remain at the disposal of the stakeholders. In this sense, ENDESA once again attained the Advanced Level of the United Nations Global Compact in 2016, this being the highest level attainable for progress reports. The Advanced Level is granted to those companies which display a high level of performance in Sustainability and which adopt and inform on a set of Good Management and Governance Practices of Corporate Sustainability. Thus, ENDESA renews its commitment to this initiative, thus to continue

**In 2016 ENDESA renewed its Advanced Level of the World Compact**

to move forward in compliance with the Principles of the Global Compact.

In 2016, ENDESA maintained its commitment to the Global Compact. On a worldwide level, ENDESA supports the Enel group in its noteworthy participation in the various initiatives developed both by the Global Compact and Global Compact LEAD (the Global Compact leadership platform that brings together sustainability leaders). On a local level, ENDESA has played an active role in the Global Compact Network Spain, particularly concerning the promotion of the Sustainable Development Goals and the Guiding Principles on Business and Human Rights. Therefore, after 4 years, ENDESA once again belongs to the Executive Committee of the Network Spain, the highest ranking governing body, in order to contribute to this institution its experience and commitment to sustainable development and to the Ten Principles.

## 2.3.2. The Guiding Principles on Business and Human Rights

### G4-DMA Investment

ENDESA has a permanent commitment to the respect and furtherance of Human Rights. This commitment is reflected in its corporate policies and is embodied in its adherence to the United Nations Global Compact, incorporating support and protection of Human Rights and non-complicity with their infringement in its two first principles. It was again publicly and expressly ratified at the celebration of the 60th anniversary of the Universal Declaration of Human Rights, with the participation of ENDESA, together with 156 other companies at the "CEO Declaration" published in all the editions worldwide of the *Financial Times* on 10<sup>th</sup> December 2008. The text published was as follows:

*"On the occasion of the 60<sup>th</sup> anniversary of the Universal Declaration of Human Rights, we, business leaders from all corners of the world, call on governments to implement fully their Human Rights obligations. We also reiterate our own commitment to respect and support Human Rights within our sphere of influence. Human Rights are universal and are an important business concern all over the globe."*

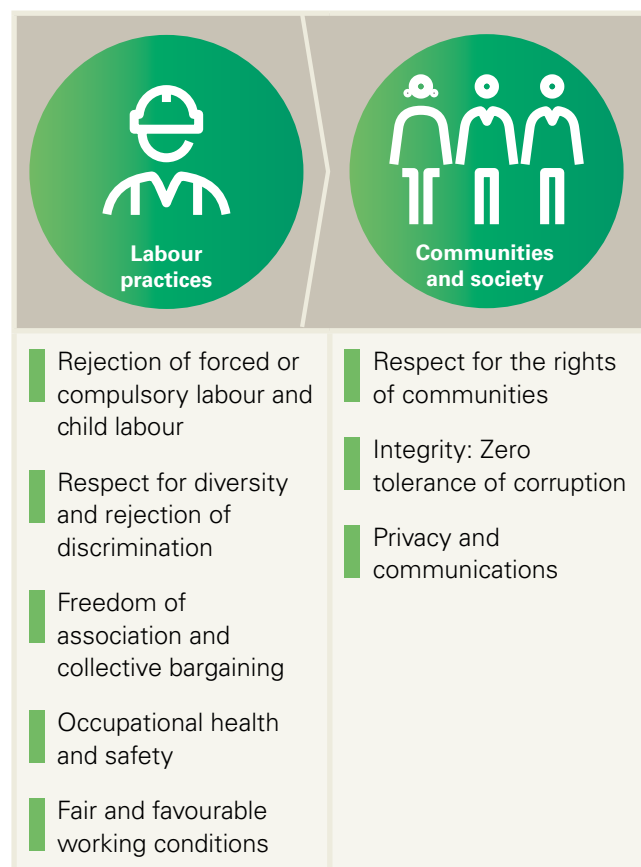
Historically, ENDESA has been a trendsetter in initiatives to ensure respect for Human Rights in its activities and those of its supply chain, continually developing processes to identify risks and their potential impact on the field of Human Rights.

Thus, subsequent to the passing of the Guiding Principles on Business and Human Rights, the Enel Group — and therefore ENDESA — decided to formally adapt their historic commitment to the respect and furtherance of Human Rights to these new Guiding Principles, integrating them into the management of corporate activity.

Consequently, in 2013 ENDESA's Board of Directors passed the Human Rights policy based on the Human Rights policy drawn up by the Enel Group, thus continuing with the recommendations established by the guiding principles.

ENDESA's Human Rights Policy includes the Company's commitment and responsibility in relation to Human Rights in general, and particularly those applicable to the business activities and corporate operations carried out by ENDESA staff, both managers and employees.

## Principles of the Human Rights Policy



In order to enforce the commitments contained in the Human Rights Policy, and following the recommendations of the Guiding Principles, ENDESA undertakes to implement appropriate due diligence processes to ensure the policy is implemented and monitored, assessing the possible impacts and risks existing in the field of Human Rights and establishing measures for their mitigation, which are part of ENDESA's sustainability strategy.

ENDESA has specific mechanisms to ensure compliance with each of the principles of the Human Rights Policy. However, in order to reinforce its standpoint in this respect and to minimise possible risks, during 2017 ENDESA will implement a system for the assessment of global compliance with the Human Rights Policy which will enable it to identify possible opportunities for improvement in order to continue to maintain a high level of excellence with regard to Human Rights.

## 2.3.3. The Sustainable Development Goals

The corporate sector, being an agent for economic, social and environmental progress, has been identified as a key player for the attainment of the United Nations Sustainable Development Goals, acknowledging that development will not be achieved without the active participation of the corporate sector.

ENDESA is firmly committed to the new United Nations Sustainable Development Agenda and acknowledges the historic opportunity represented by the new Sustainable Development Goals and the involvement of the private sector to overcome the main challenges facing society, from the struggle against climate change to the eradication of poverty, and economic and social progress.

This commitment was confirmed by ENDESA's CEO, José Damián Bogas, in the presence of Ban Ki-Moon, Secretary-General of the United Nations, during his visit to Spain in the year of the launching of the Goals.

Similarly, the Enel group publicly undertook to make a specific contribution with 4 of the 17 Sustainable Development Goals.



## Enel's public commitment to the United Nations SDGs



In turn, on 23<sup>rd</sup> November 2016, ENDESA presented to its investors the new 2017-2019 Strategic Plan, which establishes the roadmap toward the furtherance of a more sustainable energy model and the achievement of the decarbonisation of the energy mix in 2050, in line

with the new United Nations Sustainable Development Agenda.

During the presentation, ENDESA announced its specific contribution to the Sustainable Development Goals:



## Contribution

To the UN Sustainable Development Goals

**United Nations**  
Sustainable Development Goals (SDGs)



**THE GLOBAL GOALS**  
For Sustainable Development



**Decarbonisation of the energy mix without in 2050**

**Reduction in CO<sub>2</sub> emissions**  
2020: 47%  
2030: 61%

**Renewables > 500 MW Additional (2021)**



**> 1,000 million euros to transform the future of energy<sup>1</sup>: Digitalisation and VAPS**

**12.5 MM**  
Remote meters (LV)  
**> 18,000**  
Remote controls (LV)  
**71%** Remote monitoring update (HV)

**Automation**

**8%**  
improvement  
incontinuity supply  
(vs. 2015)

**Quality of supply**

**3.7 MM**  
Digital customers  
**15%**  
Digital sales

**Customers**

**x 2**  
increase in margin  
on sales of VAPS  
(vs 2015)

**VAPS**

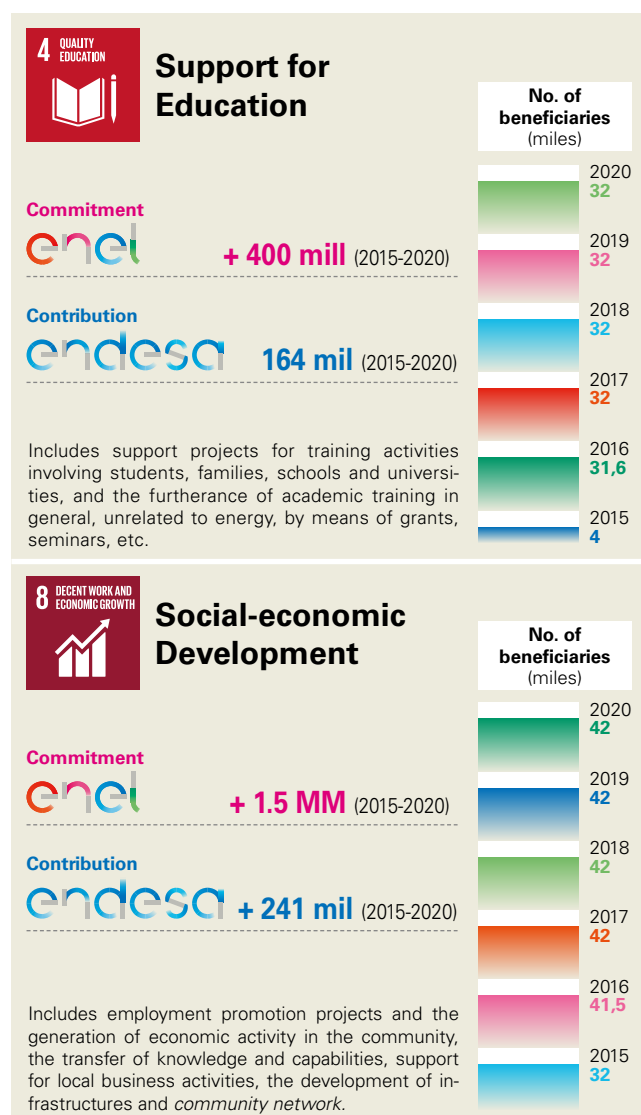


**No vulnerable customer electricity**

Cooperation, training and awareness  
**agreements**  
Proposal for regulatory change

<sup>1</sup> Goals for the 2016-2019 period.  
Source: ENDESA 2017-2019 Strategic Plan.

ENDESA's commitment to SDG 7 and SDG 13 is supplemented by its contribution to SDGs 4 and 8, for which the Enel Group has announced specific commitments:



However, although these are the priority SDGs for Enel and ENDESA and therefore those with a greater focus in the coming years, they will also concentrate on others of the 17 Goals. To this end, ENDESA has launched its new 2017-2019 Sustainability Plan, representing the roadmap for the next 3 years to contribute to the 2030 Agenda, aligning its sustainability strategy with this universal framework. For further information, see the chapter *ENDESA's Sustainability Plan*.

Finally, the chapter *"Our Performance"* details ENDESA's compliance and contribution throughout 2016 to each of the Sustainable Development Goals acted upon through its business activity.

## 2.4. Participation in Sustainability Forums and Associations

G4-16

The most significant forums and associations devoted to the furtherance of sustainability in general throughout the value creation chain in which ENDESA has participated during 2016 are listed below. However, it should be noted that ENDESA also takes part in other forums and associations whose mission is to progress in the management of specific items in the field of sustainability, such as the struggle against climate change or social action, which are itemised in the present Sustainability Report in the chapters in the section *Our Performance*.

### ENDESA joins the Executive Committee of the Global Compact Network Spain

ENDESA has become a member of the Executive Committee of the Global Compact Network Spain. This Committee is comprised of 21 Spanish members of the Global Compact, representing large companies, SMEs and civil companies.

The Global Compact Network Spain is, with a membership of over 2,600 bodies, the largest national network within the Global Compact, and has adopted one of the most advanced management models in this field, enabling it to reach a leading position among the over 100 local networks existing on an international level.

ENDESA's commitment to the Global Compact has been firm since its launching in 1999. It was one of the first Spanish companies to join the initiative, integrating the 10 aforementioned principles into its corporate policies and integrity norms. Furthermore, the Company has established the appropriate management mechanisms to ensure their compliance and accounts for the same before its stakeholders.



|                              |  | 2002  | 2004  | 2014   |
|------------------------------|--|---|---|--|
|                              |  |  Red Pacto Mundial España  |  Club de Excelencia en Sostenibilidad  |  Forética   |
| Type of Association          |  | Multistakeholder Association; focal point of the UN Global Compact  | Association of Large Companies; National Partner of CSR Europe  | Multistakeholder Association; National Partner of WBCSD  |
| Position of ENDESA           |  | Member of the Board of Directors  | Founder Partner   | Development partner  |
| Participation of ENDESA 2016 |  | <ul style="list-style-type: none"> <li>■ Furtherance of the Ten Principles of the Global Compact</li> <li>■ United Nations Business Framework and Human Rights</li> <li>■ United Nations Sustainable Development Goals</li> </ul> | <ul style="list-style-type: none"> <li>■ Energy efficiency</li> <li>■ Sustainable mobility</li> <li>■ Socially Responsible investment</li> <li>■ Corporate biodiversity management</li> <li>■ Integration of CR in the company</li> </ul> | <ul style="list-style-type: none"> <li>■ Business strategy for the mitigation of and adaptation to climate change</li> <li>■ Transparency, compliance and anticorruption</li> <li>■ European Enterprise strategy 2020</li> </ul> |

|                              |  | 2015   | 2014  | 2014   |
|------------------------------|--|--|---|--|
|                              |  |  TRANSPARENCY INTERNATIONAL ESPAÑA                            |  unesa<br>Asociación Española de la Industria Eléctrica                         |  Q AEC<br>ASOCIACIÓN ESPAÑOLA PARA LA CALIDAD |
| Type of Association          |  | Private not-for-profit entity, specialised in transparency   | Business Association of the Electricity Sector  | Private not-for-profit entity, specialised in quality  |
| Position of ENDESA           |  | Member of the Working Group  | Member of the CSR Commission  | Member of the CSR Working  |
| Participation of ENDESA 2016 |  | <ul style="list-style-type: none"> <li>■ Working Group for the furtherance of transparency, CSR incorporate governance and compliance</li> </ul> | <ul style="list-style-type: none"> <li>■ Working Group for the furtherance of CSR in corporate strategy, with special emphasis on the electricity sector</li> </ul> | <ul style="list-style-type: none"> <li>■ Working Group for the furtherance of CSR in corporate strategy</li> </ul>                 |

# 3. Model of Good Governance

## 3.1. Governance and Sustainability Management System

G4-34 G4-35 G4-36 G4-37 G4-42 G4-43 G4-44 G4-45 G4-46  
G4-47 G4-48

In order to ensure that ENDESA's commitment to sustainability remains firm in all the Company's decision-making processes and in the performance of its daily activities, ENDESA has a sustainability governance and management system which involves all areas of the Company.

Thus, the Board of Governors is responsible for passing the sustainability policy and plan, and assigns to the Auditing and Compliance Committee supervisory functions, among these:

- > Revising the company's corporate social responsibility policy, ensuring that it is oriented toward the creation of value.
- > Following-up the corporate social responsibility strategy and practices and assessing their degree of compliance.
- > Supervising and assessing the relationship processes with the various stakeholder groups.
- > Making an assessment of all concerning non-financial risks for the Company, including operational, technological, legal, social, environmental, political and reputational risks.
- > Coordinating the reporting process of non-financial and diversity-related information, in compliance with applicable regulations and international reference standards.

Likewise, this Committee has other functions, related to specific aspects of sustainability:

- > Informing of the proposals for modification of the Company Ethics Code and supervising compliance with the same.
- > >Supervising compliance with the Company's corporate rules of governance and periodically assessing the suitability of the system of corporate governance, in order that it may fulfil its mission to promote social interest and to hold present, where applicable, the legitimate interests of the other stakeholder groups.

On the other hand, the Executive Management Committee, comprised of the CEO and the Directors-General of ENDESA –including the Sustainability Directorate-General– is the executive body in charge of developing and implementing ENDESA's sustainability strategy and guaranteeing the integration of the social, environmental and ethical aspects into the decision-making processes performed at the highest level.

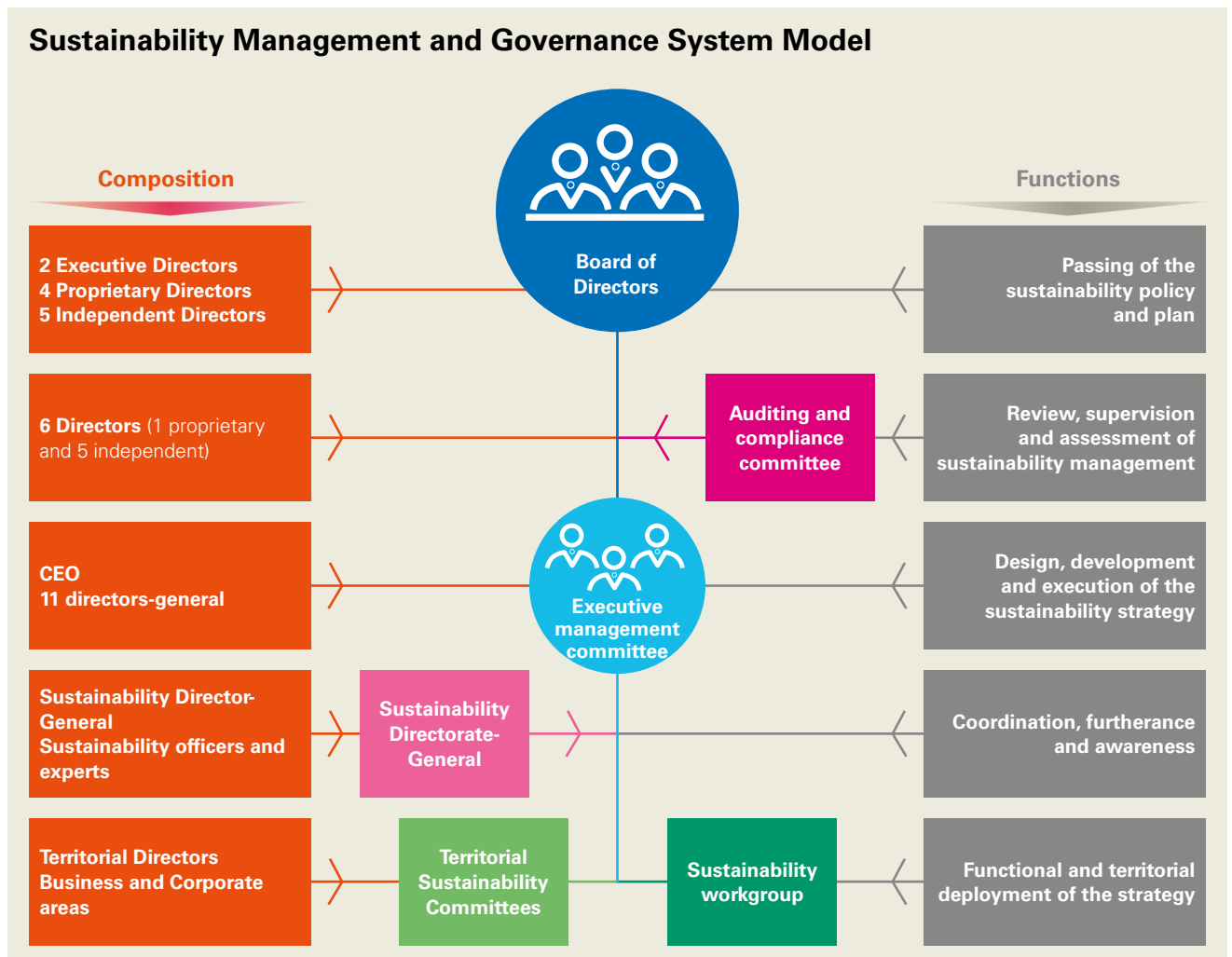
Sustainability management at ENDESA extends throughout the Company; for this reason there is a work group in charge of integrating sustainability principles into everyday business management, defining the objectives and the actions included in the sustainability plan. This workgroup is formed from the main areas of ENDESA, both business and support groups, among these: Generation, Distribution, Renewables, Marketing, Corporate Affairs, Auditing, Relationship with Investors, Human Resources, Environment, Regulatory, Media, Communications, Innovation, ICT, Purchasing, Occupational Health and Safety.

Besides, in order to incorporate local peculiarities into ENDESA's sustainability strategy, there are 7 territorial sustainability committees, presided by the highest representative of the Company in that territory, and



whose main functions are to promote and supplement the lines of action established in the Sustainability Plan, providing a better setting for ENDESA's activity and mapping the objectives and commitments onto the local reality.

Finally, the Sustainability Directorate-General, which depends directly on the CEO and which is present in the Executive Management Committee, undertakes coordination and boosting functions for ENDESA's sustainability strategy.



## 3.2. Participation of Shareholders

On 26<sup>th</sup> April 2016, ENDESA held its Ordinary General Shareholders' Meeting, with a participation of 86.35% of the capital.

G4-13

In 2016 no significant changes regarding the size, structure or supply chain of the Company were presented for analysis.

## 3.3. Leadership of the Board of Directors

G4-49

The Board of Directors, to whom full powers for the management, administration and representation of the Company correspond, as a general rule will entrust the ordinary management of the Company to the delegate administration bodies and will concentrate its activity on general supervisory functions and the consideration of matters of particular significance to the Company and its group of companies.

In accordance with the Statutes, the Board of Directors will form the Auditing and Compliance Committee and the Appointments and Remuneration Committee, and may also create an Executive Committee.

G4-38 G4-39 G4-LA12

## BOARD OF DIRECTORS

As of 31-12-2016

### Borja Prado Eulate

Chairman  
since 20-6-2007<sup>1</sup>



### Francesco Starace

Vice-chairman  
since 16-6-2014



### José D. Bogas Gálvez

Chief Executive Officer  
since 7-10-2014



### Alejandro Echevarría Busquet

Director  
since 25-6-2009



### Helena Revoredo Delvecchio

Director  
since 4-11-2014



### Miquel Roca Junyent

Director  
since 25-6-2009



### Enrico Viale

Director  
since 21-10-2014



### Livio Gallo

Director  
since 21-10-2014



### Alberto de Paoli

Director  
since 04-11-2014



### Ignacio Garralda Ruiz de Velasco

Director  
since 27-4-2015



### Francisco de Lacerda

Consejero  
since 27-4-2015





### Borja Acha Besga

Secretary  
since 1-8-2015



 Auditing and Compliance Committee

 Appointments and Remuneration Committee

 Executive Committee



Executive



Independent



Proprietary

\* Appointed Chairman on 24/3/2009.

| Qualifications and skills |             |       |            |          | Consejeros                       | Diversity         |             |        |     |
|---------------------------|-------------|-------|------------|----------|----------------------------------|-------------------|-------------|--------|-----|
| Finance and Risks         | Engineering | Legal | Management | Strategy |                                  | Years in position | Nationality | Gender | Age |
| ●                         |             | ●     | ●          | ●        | Borja Prado Eulate               | 12                | SPA         | M      | 60  |
| ●                         | ●           |       | ●          | ●        | Francesco Starace                | 2                 | ITA         | M      | 61  |
| ●                         | ●           |       | ●          | ●        | José D. Bogas Gálvez             | 2                 | SPA         | M      | 61  |
| ●                         |             |       | ●          | ●        | Alberto De Paoli                 | 2                 | ITA         | M      | 51  |
| ●                         |             | ●     | ●          | ●        | Miquel Roca Junyent              | 7                 | SPA         | M      | 76  |
| ●                         |             |       | ●          | ●        | Alejandro Echevarría Busquet     | 7                 | SPA         | M      | 74  |
| ●                         | ●           |       | ●          | ●        | Livio Gallo                      | 2                 | ITA         | M      | 66  |
| ●                         | ●           |       | ●          | ●        | Enrico Viale                     | 2                 | ITA         | M      | 59  |
| ●                         |             |       | ●          | ●        | Helena Revoredo Delvecchio       | 2                 | ARG         | F      | 69  |
| ●                         |             | ●     | ●          | ●        | Ignacio Garralda Ruíz de Velasco | 1                 | SPA         | M      | 65  |
| ●                         |             |       | ●          | ●        | Francisco de Lacerda             | 1                 | POR         | M      | 56  |

#### G4-40

Article 9 of the Regulations for the Board of Directors, Appointment, ratification or re-election of Members, establishes that *"The Board of Directors, at the proposal of the Appointments and Remuneration Committee, shall approve a specific, verifiable selection policy for candidates to Directorships, to guarantee that the proposals for nomination as Members are founded on prior analysis of the requirements of the Board, and to favour the diversity of knowledge, experience and gender."*

In this regard, on 10<sup>th</sup> November 2015 the Board of Directors passed a specific, verifiable policy for the selection of Members focused on the integration of experience and different professional and management skills (including economic and financial and also legal skills, those specific to the business carried out by the Company), favouring as much as possible diversity in gender and in age.

Likewise, Article 9 of the Regulations states that *"proposals for the appointment, ratification or re-election of Directors formulated by the Committee shall fall on persons of known prestige who possess the appropriate professional experi-*

*ence and knowledge for the exercise of their functions and who undertake a commitment to sufficient dedication for the performance of their duties.*

*The General Meeting or, where applicable, the Committee, shall be competent to appoint members of the same in accordance with the stipulations of the Corporate Enterprises Act and the Bylaws. The position of Member may be waived, cancelled or re-elected.*

*The proposal for the appointment, ratification or re-election of Members submitted by the Board of Directors to the General Shareholders' meeting, or approved by the Board of Directors in the first instance, shall be formulated at the proposal of the Appointments and Remuneration Committee in the event of these being independent Directors, and with a prior report from said Committee in the case of Directors nominated for other categories."*

On the other hand, with regard to the Auditing and Compliance Committee, Article 23 of the Regulations states that *"the Board of Directors shall seek to appoint all the members of the Auditing and Compliance Committee, and its*

Chairman in particular, bearing in mind their knowledge and experience in matters of accounting, auditing or risk management.

*The Chairman of the Auditing and Compliance Committee shall be appointed by the Board of Directors from among the independent Directors belonging to the Committee, with the favourable vote of the majority of the Board."*

Finally, with regard to the Appointments and Remuneration Committee, Article 24 of the Regulations states that *"the Board of Directors shall seek to appoint all the members of the Appointments and Remuneration Committee, bearing in mind their knowledge, skills and experience. The Chairman of the Appointments and Remuneration Committee shall be appointed by the Board of Directors from among the independent Directors belonging to the Committee, with the favourable vote of the majority of the Board. In the absence of a Chairman,*

*the most senior independent Director of the Committee shall take his place, and failing this, it shall be the independent Director of the greatest age and belonging to the Committee."*

During 2016, the Board met on 12 occasions. The Chairman attended all of these.

### ENDESA Board of Directors: key data for 2016

|   |        |
|---|--------|
| Total Number of Directors   | 11     |
| Non-executive Directors   | 9      |
| Independent Directors   | 5      |
| External proprietary Directors  | 4      |
| Board Meetings  | 12     |
| Shares owned or controlled by members of the Board of Directors or by significant individual shareholders | 54,720 |

## 3.4. Remuneration of Directors

The total remuneration received by ENDESA's directors in 2016 was 6,260 (thousands of Euros).

The remuneration received by each member of the Board is detailed below:

|                                      | Thousands of Euros |                    |                 |                                  |                                 |             |                |   |                           |
|--------------------------------------|--------------------|--------------------|-----------------|----------------------------------|---------------------------------|-------------|----------------|---|---------------------------|
|                                      | 2016               |                    |                 |                                  |                                 |             |                |   |                           |
|                                      | Salary             | Fixed remuneration | Attendance fees | Short-term Variable compensation | Long-term variable compensation | Indemnities | Other concepts | Compensation accrued in other companies | Total Financial Year 2016 |
| Mr. Borja Prado Eulate               | 1,132              | 188                | 18              | 822                              | 853                             | —           | 42             | —                                       | 3,055                     |
| Mr. Francesco Starace                | —                  | —                  | —               | —                                | —                               | —           | —              | —                                       | —                         |
| Mr. José D. Bogas Gálvez             | 700                | —                  | —               | 522                              | 705                             | —           | 47             | —                                       | 1,974                     |
| Mr. Alejandro Echevarría Busquet     | —                  | 197                | 46              | —                                | —                               | —           | —              | —                                       | 244                       |
| Mr. Livio Gallo                      | —                  | —                  | —               | —                                | —                               | —           | —              | —                                       | —                         |
| Mr. Alberto de Paoli                 | —                  | —                  | —               | —                                | —                               | —           | —              | —                                       | —                         |
| Ms. Helena Revoredo Delvecchio       | —                  | 188                | 42              | —                                | —                               | —           | —              | —                                       | 230                       |
| Mr. Miquel Roca Junyent              | —                  | 225                | 51              | —                                | —                               | —           | —              | —                                       | 276                       |
| Mr. Enrico Viale                     | —                  | —                  | —               | —                                | —                               | —           | —              | —                                       | —                         |
| Mr. Ignacio Garralda Ruiz de Velasco | —                  | 191                | 51              | —                                | —                               | —           | —              | —                                       | 242                       |
| Mr. Francisco de Lacerda             | —                  | 188                | 51              | —                                | —                               | —           | —              | —                                       | 239                       |
| Total                                | 1,832              | 1,177              | 259             | 1,344                            | 1,558                           | —           | 89             | —                                       | 6,260                     |

## 3.5. Directors' Responsibilities and Duties

G4-41

Article 28 of the Board of Directors Regulations, passed on 18<sup>th</sup> September 2015, states literally:

*"Directors shall take the necessary steps to avoid falling into situations where their interests, whether personal or otherwise, may enter into conflict with company interests or their duties to the Company."*

*In particular, the duty to avoid situations of conflict of interest requires the Directors to refrain from:*

- A) Performing transactions with the Company, unless these are ordinary transactions under standard conditions for customers and of low importance, understanding as such those whose communication is not necessary to show a clear and fair image of net worth, financial situation and income of the Company.*
- B) Using the name of the company or mentioning their situation as Directors of the same in order to wrongfully influence the performance of private operations.*
- C) Using company assets, including confidential information concerning the Company, for private purposes.*
- D) Exploiting the business opportunities of the Company.*
- E) Obtaining advantage or remuneration from third parties other than the Company and its group with regard to the performance of their duties, unless these be matters of mere courtesy.*
- F) Carrying out activities on their own account or on behalf of others which may entail competition, either real or potential, for the Company, or which in any other way may place them in permanent conflict with the Company's interests.*

*The precautions mentioned in this section shall also be applicable in the event that the person profiting from the forbidden acts or activities may have a relationship with the Director.*

*Release from the obligations foreseen in this section, where applicable, shall require the approval of the Board of Directors or of the General Shareholders' Meeting, in accordance with the Law and other internal regulations of the Company.*

*The Directors shall inform the Board of Directors, via the Board Secretary, of any situation of conflict, direct or indirect, which they may have with the interests of the Company. The Directors shall abstain from participating in the deliberation and voting of agreements and decisions in which they or the related person may have a conflict of interests, whether direct or indirect. Agreements or decisions affecting their position as a Director, such as their appointment or revocation for positions on the Board of Directors, its Committees and the Executive Committee, or others of similar significance, shall be excluded from the above obligation."*

In this regard, the persons considered to be related to the Directors, pursuant to Article 231 of the Capital Companies Act, are listed below:

- a) The Director's spouse or persons with a similar affective relationship.
- b) The ascendants, descendants or siblings of the Director or of the Director's spouse.
- c) The spouses of the ascendants, descendants or siblings of the Director.
- d) The companies in which the Director, on his/her own account or by means of a representative, occupies one of the positions of control mentioned in Section 1 of Article 42 of the Commercial Code.

And with regard to the Director as a legal person, those persons who are considered to be related are listed below:

- a) The partners who are, with regard to the Director as a legal person, in any of the situations of control mentioned in Section 1 of Article 42 of the Commercial Code.
- b) The administrators, de jure or de facto, the liquidators and the proxies with general powers of attorney of the Director as a legal person.
- c) The companies belonging to the same group as the Director as a legal person and his/her partners.

- d) The persons who, with regard to the physical person who is proxy to the Director as a legal person are considered to be persons related to said physical person.

On the other hand, according to articles 25, 26 and 27 of the Regulations of the Board of Directors, their responsibility is to act with due diligence, loyalty and confidentiality:

#### Duty of diligence

*The Directors shall perform their duties while complying with obligations imposed by the Law, by the Social Statutes and by these Regulations, with the diligence of a responsible businessperson, bearing in mind the nature of the position and the duties ascribed to each. The Directors shall devote themselves appropriately and shall adopt the measures necessary for the correct management and control of the Company.*

*In the performance of their duties, the Directors have the duty to require, and the right to request from the Company the appropriate information necessary for the fulfilment of their obligations, and to duly prepare the Board meetings and those of the company departments to which they belong.*

*Likewise, the Directors shall attend the meetings of the company departments to which they belong, and shall participate actively in the discussions in order to contribute effectively to the decision-making process. In the event of inability, due to a justified cause, to attend the meetings to which he/she has been summoned, he/she shall brief the Director substituting him/her, where applicable. The Company shall be empowered to undersign an insurance policy covering the civil liability of the Directors and managers in the performance of their duties, with the exception of uninsurable risks in accordance with Spanish legislation.*

#### Duty of loyalty

*The Directors shall perform their duties with the loyalty of a faithful representative, acting in good faith and in the Company's best interests, understood with full independence, always seeking the best defence and protection of the shareholders, to whom they owe their mandate and are accountable.*

*The Directors, by virtue of their position, have the following obligations in particular:*

- A) Not to exercise their powers to ends different from those for which they were granted.*
- B) To perform their duties under the principle of personal responsibility with freedom of criteria or judgment, and independence with regard to instructions and connections with third parties.*
- C) To comply with the general principles and the criteria of conduct contained in the Company's Code of Ethics.*

#### Duty of confidentiality

*The Directors, even after the termination of their duties, shall maintain secrecy with regard to the information, data, reports or precedents to which they may have had access in the performance of their duties, even after termination of the same, except in the cases required or permitted by law.*

*When the Director is a legal person, the obligation to secrecy shall fall on the representative of the former.*

# 4. Risk Management

## 4.1. Risk Management and Control Policy

G4-EC2

The Risk Management and Control Policy, passed by the Board of Directors at ENDESA and all subsidiary companies, seeks to guide and direct all strategic, organizational and operational actions taken that enable the Board of Directors to accurately establish risk tolerance levels in order to ensure that the managers of each business line can maximize the Company's profitability, preserve or increase its assets and equity and maximize certainty of performance above set thresholds, preventing uncertain future events from negatively impacting the attainment of profitability objectives set by the Company.

The Risk Management and Control Policy defines ENDESA's Risk Control System as an interconnected system of regulations, processes, controls and information systems, where the global risk is defined as the risk resulting from the consolidation of all the risks to which it is exposed, taking into account the mitigating effects between the different exposures and categories of the same, enabling the consolidation of the exposure to risk of the business units and areas of the corporate Group and its assessment; also the preparation of the corresponding information for the making of risk-related decisions and the appropriate use of capital.

The Risk Management and Control Process follows a model based, on the one hand, on constant analysis of the risk profile, applying the best current practices in the energy sector or of reference in risk management, on uniformity criteria for their measurement, on the separation between risk managers and controllers; and on the other, on guaranteeing the relationship between the risk taken and the resources necessary to operate the business, always preserving a correct balance between the risk taken and the goals set by the Board of Directors.

The integral risk management process consists of the identification, measurement, analysis and monitoring of the different risks, as well as their follow-up and control over time, based on the following actions:

- > **Identification.** The purpose of risk identification is the maintenance of a prioritised, updated database of all the risks assumed by the corporation via coordinated, efficient participation at all levels of the Company.
- > **Measurement.** The purpose of measuring parameters that allow for the aggregation and comparison of risks is to obtain an overall quantification of the exposure to assumed risk, including all of ENDESA's positions.
- > **Control.** The purpose of risk control is to ensure that risks assumed by ENDESA are in line with the objectives ultimately set by the Board of Directors of ENDESA, S.A.
- > **Management.** The purpose of risk management is to execute the actions directed toward the adaptation of the levels of risk assumed at each level of the Company, and toward the established risk tolerance and predisposition.

By means of this process, it is intended to achieve an integral view of the risk, oriented toward risk assessment and prioritisation. It includes the main financial and non-financial risks to which the Company is exposed, both endogenous (due to internal factors) and exogenous (due to external factors), to be reflected on an annual map including the main risks identified and establishing periodic revisions.

In addition, faced by the increased interest in the management and control of risks to which companies are subjected, and given the increasing complexity of their identification from an integral viewpoint, participation of the workforce at all levels is of great importance in this process. To this end, a "risks box" has been created, which the employees may use to contribute to the identification of market risks and to propose measures for their mitigation, thus supplementing the "top-down" systems for the management and control



of existing risks and the mailboxes and specific procedures for the sending of reports related to ethical non-compliance, legal risks and occupational risks.

Besides, the Board of Directors of ENDESA, S.A. has also passed a Fiscal Risk Management and Control Policy whose purpose is to guide and direct the group of strategic, organisational and operative actions enabling the Board of Directors to define precisely the acceptable level of fiscal risk, for the fiscal affairs managers to achieve the goals concerning fiscal risks established by the Risk Management and Control Policy. The Risk Management and Control Policy constitute the specific, documented embodiment in fiscal control matters of the Fiscal Strategy passed by the Board of Directors of ENDESA, S.A.

## 4.2. Main risks of Sustainability

### G4-2

ENDESA is exposed to certain risks that it manages by means of the application of identification, measurement, control and management systems. In this regard, the different types of risk, financial and non-financial (among others, operational, technological, legal, social, environmental, political and reputational) risks which the Company faces are taken into account. These aspects are integrated into the Company's risk management and control system and are supervised by the Auditing and Compliance Committee of the Board of Directors.

During 2016, ENDESA identified emerging sustainability risks with medium- and long-term impact and related to some of the dimensions comprising sustainability. The goal is to be able to analyse their impact on business and to define the steps necessary for their control and prevention. To this end, ENDESA has analysed the different trends and risks identified by different institutions at a global level, such as the World Economic Forum or socially responsible investment analysts.

Analysis of the main emerging sustainability risks shows that climate change is that which has the greatest significance for the Company. ENDESA, due to the activity it performs, is exposed to different risks derived from cli-

mate change, such as the increase in frequency of extreme weather conditions. These adverse phenomena can cause a negative impact due to the increase in costs and the legal and social requirements for generation and distribution companies.

Moreover, since the COP21, the concern over climate change has grown considerably in countries, mainly in European Union countries. Therefore, it is expected that in the coming years regulatory pressure on the energy sector, among others, will be intensified. Besides, investors display ever more interest in knowing to what extent the companies of the energy sector are preparing to move forward toward a low-carbon economy.

ENDESA is aware of this new context and shares this concern. Therefore, the new 2017-2019 Strategic Plan presented to investors in November 2016 identifies the decarbonisation of its energy mix in 2050 as one of its strategic priorities, establishing the roadmap for its achievement.

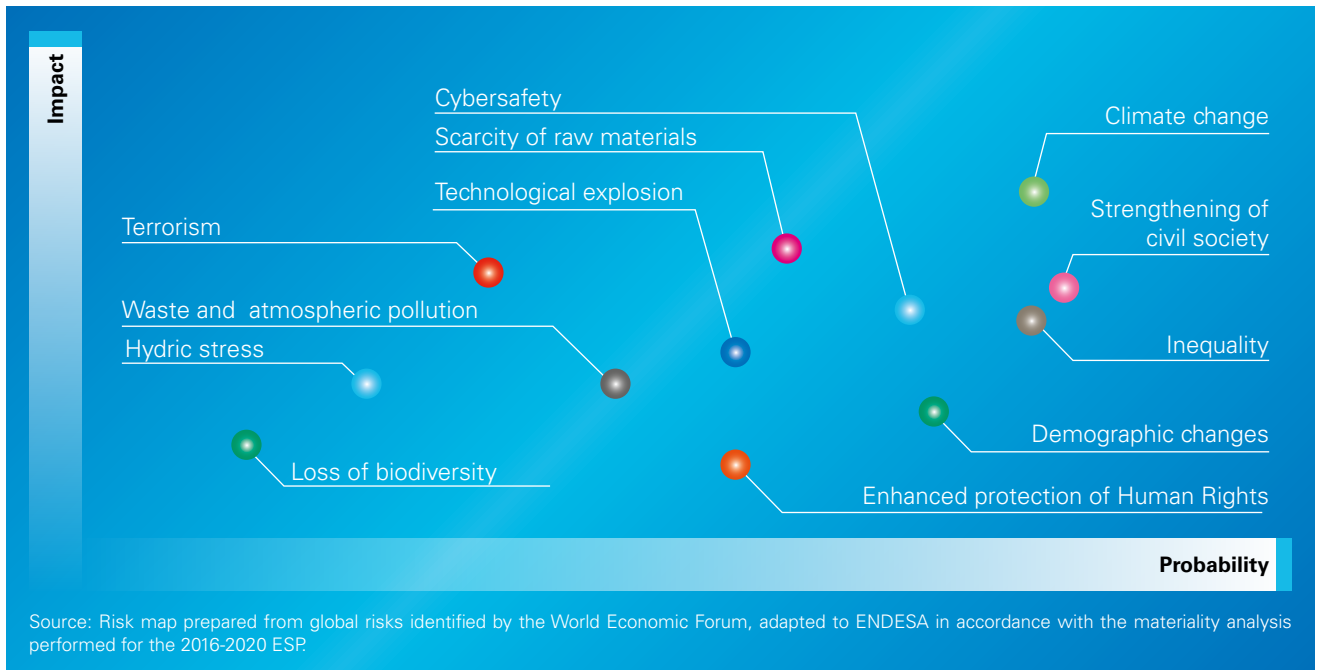
The chapter *Decarbonisation of the energy mix* of this report lists the activities carried out by the Company to minimise the risks derived from climate change, and the results achieved to date.

On the other hand, another of the emerging risks that acquires greater significance each year is that of cybersecurity. The new 2017-2019 Strategic Plan identifies digital transformation as a fundamental driver toward the achievement of a sustainable energy model. To this end, ENDESA is working on three main fronts: the digitalisation of the Company's assets (electricity generation facilities and distribution grid), the development of a digital culture within the Company and the digitalisation of our customers and of the way ENDESA interacts with them.

This transformation also entails an increase in ENDESA's exposure to possible cyberattacks that might endanger the safety of its systems and of its customer databases, possibly even affecting the Company's Profit and Loss accounts and the confidence deposited by its customers.

Likewise, the Company's critical infrastructures, understood to be those whose operation is essential and for which there are no alternative solutions, may also be exposed to this type of attack, which might cause a serious impact on the essential services they provide (for example, nuclear power plants). Therefore, the risks associated with





cybersecurity have been identified by the Company as a significant emerging risk that the Company must manage and control.

To this end, ENDESA, as part of the Enel Group, has developed a cybersecurity strategy based on a management framework in line with international standards and governmental initiatives. As part of this strategy, ENDESA performs a process of assessment of the principal risks and identification of vulnerabilities, and also an exhaustive

digital surveillance by which it analyses the information and implements corrective action to mitigate the risks. Likewise, the Enel Group has a cybersecurity department, which develops and manages all these activities, in turn ensuring compliance with current legislation in matters of the security of critical infrastructures.

Further information on ENDESA's cybersecurity strategy may be found in the chapter on "*Innovation and digitalisation*" of the present report.

# 5. Ethical Conduct and Compliance

DMA-Fight against corruption

G4-DMA Unfair competition practices

G4-DMA Regulatory compliance | G4-SO5 | G4-SO4

The entirety of the Company's employees, executives, members of the Board of Directors and major and minor partners have been informed of the Company's Anti-Corruption Policy.

## 5.1. Ethics Code and Zero Tolerance to Corruption Plan

G4-SO6 | G4-DMA Public Policy

ENDESA is firmly committed to compliance with ethical principles and regulations and with current legislation, both internally and in its external relationships.

To this end, the Company has an Ethics Code and a Zero Tolerance to Corruption Plan, representing the pillars of its ethics culture and integrity. These documents oblige its administrators, executives and workforce to perform their activities and their relationships with their stakeholders in an honourable manner.

The Ethics Code is comprised of:

- > 16 General Principles governing relationships with stakeholders and defining the reference values of ENDESA's activities.
- > Criteria for conduct in relationships with each stakeholder group, specifically providing the guidelines and regulations to which ENDESA's collaborators must adhere in order to respect the general principles and to prevent the risk of unethical conduct.

- > Implementation Mechanisms to describe the organisational structure regarding the Ethics Code, responsible for ensuring the appropriate awareness, understanding and compliance with the same by all employees.

Likewise, as established by the Ethics Code, ENDESA does not finance any parties, their representatives or candidates either in Spain or abroad, nor does it sponsor conferences or gatherings whose sole purpose is political propaganda.

It refrains from any type of direct or indirect pressure on political exponents (for example, via public concessions to ENDESA, the acceptance of suggestions for hiring, consulting services, etc.).

The Zero Tolerance to Corruption Plan, in turn, represents ENDESA's specific commitment to the fight against corruption and the full rejection of any form in which it may appear, in compliance with the tenth Principle of the Global Compact, to which ENDESA belongs: "Businesses should work against corruption in all its forms, including extortion and bribery."

The Ethics Code and the Zero Tolerance to Corruption Plan are available on the Company's website: <https://www.ENDESA.com/es/inversores/a201611-conducta-etica.html>.

## 5.2. Corporate Integrity Protocols

Furthermore, within the framework of ethical norms and compliance, ENDESA has specific protocols establishing specific criteria and norms for action, with which ENDESA's collaborators must comply in their dealings with State em-

employees and authorities, regarding the giving and receiving of gifts and attentions, and in matters of conflict of interest, exclusivity of dedication and corporate competition. These are available on the Company's website: <https://www.enedesa.com/es/inverso-res/a201611-conductaetica.html>

## 5.3. Legal Risk Prevention Model

G4-56 | G4-DMA Fight against corruption  
G4-DMA Regulatory compliance

ENDESA has a Legal Risk Prevention Model, endowing the Company with a monitoring system for the purpose of preventing or significantly reducing the risk of commission of crimes during the course of its business activities, in compliance with the dispositions of the Penal Code concerning the criminal liability of the legal entity, dispositions included in the Spanish body of law in 2010.

The Auditing and Compliance Committee (ACC) is the body responsible for the supervision of the operation of and compliance with the Model and of the functions of the Supervisory Committee responsible, among other tasks, for the monitoring and updating of the Model. The Supervisory Committee is comprised of the Director of Auditing, the Secretary-General and from the Board, the Human Resources, and Organisation Manager and the Legal Counsel Manager.

During 2016, the Supervisory Committee met on 6 occasions, and at said meetings, the major issues concerning the LRPM were addressed, even considering the intervention of officers from other areas of the Company to inform the Committee of significant aspects of their scope of responsibility.

At the start of each financial year, the Supervisory Committee prepares a Programme of Activities establishing priorities regarding qualitative criteria with a risk-based focus for whose development, by virtue of the faculties conferred and the specialisation required, it relies on the Directorate of Auditing, Legal Counsel and Human Resources and Organisation. Furthermore, each year the Committee presents the ACC with a report on the execution of the programme,

including details of the activities performed and the conclusions reached.

Among the activities performed in 2016, the following are of note:

- > The review, updating and assessment of occurrences with risk of commission of crimes and the adaptation and updating of their mitigating controls appearing in the original of the Model.
- > Verification of the efficacy and operativity of the Legal Risk Prevention Model (LRPM) by means of the review of the appropriate design and operativity of the tests on certain control activities.
- > The performance of different initiatives devoted to informing and training personnel regarding ENDESA's current ethical reference framework for compliance with crime prevention.

From the activities carried out during the financial year it may be concluded that ENDESA's Legal Risk Prevention Model is operative in all the significant companies of the Group and it is being executed efficiently, proving suited, in general, to mitigate the risks of commission of the crimes typified in the relevant regulations.

## 5.4. Participation in initiatives on integrity

ENDESA's commitment to ethics and integrity in its business management not only determines its endeavour to comply with regulations, ethical principles and current legislation, but also its active participation in initiatives to promote a greater integration of said culture into all spheres of corporate management.

In this regard, and aware of the relevance and importance of participating in civil society initiatives, in 2016 ENDESA took part, as it has done since 2015, in the various activities organised by the "Integrity Forum", furthered by Transparency International Spain. This Forum consists of a platform for joint reflection alongside various companies, to move forward in matters of compliance and transparency.

Besides, in 2016 ENDESA joined the Foretica Cluster for Transparency, Good Governance and Integrity. This Cluster has been established as a platform of companies coordinated in Spain by Foretica for the purpose of acting as a corporate meeting-point in leadership, awareness, exchange and dialogue in this field. In 2016 three meetings were held, at which the degree of progress in the implementation of the Code of Good Governance in listed companies was discussed, as were the implications for companies derived from the future transposition of the Non-Financial Information Directive.

## 5.5. Achievement of objectives

Integrity and ethical conduct form one of the basic pillars of ENDESA's sustainability strategy. Therefore, ENDESA's 2016-2019 Sustainability Plan included specific goals oriented toward maintaining a high level of excellence in this field, achieving a level of global compliance of 100%.

| Description of the goal   | Achievement of the goal |
|---|-------------------------|
| Yearly verification of the efficiency of the Legal Risk Prevention Model  | 100%                    |
| 80% of employees trained in ethical matters   | 100%                    |
| To be a referent in the sector, and one of the companies best valued due to its ethical, honourable and irreproachable conduct (DJSI score: > 95) | 100%                    |
| 100% of verifiable complaints analysed within 90 days   | 100%                    |

Likewise, in the new 2017-2019 Sustainability Plan, ENDESA has updated these goals for the 2017-2019 period. For further information, see the chapter *Sustainability Plan*.

## 5.6. Ethics channel

**G4-SO3 | G4-SO5 | G4-57 | G4-58 | G4-EN34**  
**G4-DMA Mechanisms for claims in matters of Human Rights | G4-HR12**  
**G4-DMA Mechanisms for environmental claims**  
**G4-DMA Mechanisms for claims in matters of social impact | G4-SO11**

ENDESA places at the disposal of all its stakeholders an Ethics Channel, accessible via its website ([www.endesa.com](http://www.endesa.com)) and on its intranet, so that improper, unethical or illegal

conduct which in their opinion arises in the performance of the Company's activities may be reported safely and anonymously.

The procedure established for using the channel guarantees confidentiality, as it is managed by an external, independent firm, through which all the messages are processed. Besides, there is an internal policy describing the reception, analysis and investigation process of the claims, published on the Company's intranet. The policy states, among other matters, that the Company will adopt disciplinary measures against any type of reprisal against those who report claims, and also against those who report facts that they know to be false.

The messages received via the Ethics Channel correspond mainly to the improper use of resources, matters concerning conflicts of interest and inappropriate activities by suppliers and contractors.

In addition to the Ethics Channel, claims are received via other pathways, such as by e-mail or by letter, and are always addressed to the Auditing Directorate-General, in accordance with ENDESA's internal procedures.

The auditing Directorate-General is responsible for ensuring the correct processing of the claims received, acting with independence of criteria and action regarding the other units of the organisation. It has access to all the Company documents necessary for the exercise of its functions and follows-up the implementation of the recommendations included in the auditing reports.

Besides, the Auditing Directorate-General is a body attached to the Board of Directors via the Auditing and Compliance Committee, which centralises and channels the claims of importance and presents them to the Board.

During 2016, ENDESA received, either via the Ethics channel or via other means, a total of 10 claims. The investigation of all these was concluded during the same year. Among the claims received, 2 cases of non-compliance with the Ethics Code were verified, related to fraud against the Company and conflicts of interest. In both cases, corrective action was taken, such as the non-renewal of contracts with third parties and the disciplinary dismissal of Company employees. None of the claims received was related to cases of discrimination.

| Claims received during 2016, by complainant | Customers | Employees | Suppliers | Shareholders | Community | Anonymous | Total     |
|---|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
| Iberia                                      | 0         | 3         | 1         | 0            | 0         | 6         | <b>10</b> |

| Claims received during 2016, by stakeholder group affected or potentially affected | Customers | Employees | Suppliers | Shareholders | Community | Anonymous | Total     |
|--|-----------|-----------|-----------|--------------|-----------|-----------|-----------|
| Iberia   | 2         | 2         | 1         | 4            | 1         | 0         | <b>10</b> |

| Status and conclusion of claims received | 2014      | 2015     | 2016      |
|--|-----------|----------|-----------|
| <b>Closed</b>                            | <b>17</b> | <b>8</b> | <b>10</b> |
| Non-compliance                           | 5         | 2        | 2         |
| Groundless                               | 12        | 6        | 8         |
| <b>Open</b>                              | <b>0</b>  | <b>0</b> | <b>0</b>  |

| Non-compliance by geographical area | 2014     | 2015     | 2016     |
|-------------------------------------|----------|----------|----------|
| <b>Spain and Portugal</b>           | <b>5</b> | <b>2</b> | <b>2</b> |

| Non-compliance by type  | 2014     | 2015     | 2016     |
|---|----------|----------|----------|
| Conflict of interest / Corruption                             | 1        | 0        | 1        |
| Fraud or theft against the Company/ improper use of resources | 2        | 2        | 1        |
| Other   | 2        | 0        | 0        |
| <b>Total</b>  | <b>5</b> | <b>2</b> | <b>2</b> |

The entirety of the business unit included in the scope of this report has been analysed regarding the organisational risks related to corruption.

## 5.7. Sanctions imposed

G4-S07 G4-S08 G4-PR9 EU25 G4-EN29 G4-PR2 G4-PR7

The main lawsuits or arbitrations affecting ENDESA's companies are as follows:

- > There are 2 legal proceedings in process against ENDESA Distribution Electrica, S.L.U. for forest fires in Catalonia wherefrom there might derive the obligation to satisfy a number of claims for damages for an approximate amount of 23 million Euros.
- > On 11<sup>th</sup> May 2009, the Ministry of Energy, Tourism and Digital Agenda issued a Ministerial Order imposing 4 sanctions for a total of 15 million Euros on ENDESA

Generation S.A.U. as the operator responsible for the Ascó I Nuclear Plant, in connection with the release of radioactive particles from said Plant in December 2007, committing 4 serious offences typified in Act 25/1964, of 29th April, on Nuclear Energy. An appeal against this Order was lodged at the High Court, which in a ruling of the High Court on 1st December 2009, agreed the cautionary suspension of the contested ruling, on presentation before the court of a bank guarantee for the amount of the sanction (15,300,000 Euros). Currently, said appeal has been suspended on the grounds of criminal prejudiciality by the Ruling of 6<sup>th</sup> April 2011, until the conclusion, by final ruling, of Inquiry 111/2011 of the occurrence carried out by the Court of First Instance and Preliminary Investigation No. 1 of Gandesa. By Court Ruling of 13th June 2016, the suspension of the process is maintained until a firm ruling is pronounced regarding the criminal proceedings. At the same time, the Director-General of Energy Policy and Mining imposed 2 sanctions for a total of 90,000 Euros for minor infringements derived from the same incidents; an appeal against these sanctions was lodged at an appellate court and later a contentious court, and regarding which, a) with regard to that of the amount of 15,000, appealed before the Central Contentious-Administrative Court, a sentence was pronounced on 3rd July 2012 rejecting the appeal; the sanction being paid, and b) an appeal was lodged against the sanction amounting to 75,000 at the High Court of Justice in Madrid, Contentious-Administrative Appeal No. 189/2010, the proceedings being suspended by the Ruling of 16<sup>th</sup> July 2012 due to the existence of criminal prejudiciality; this is maintained during 2017. With regard to the criminal proceedings, the Court of Gandesa (Tarragona) pronounced a Ruling dated 21<sup>st</sup> October 2015 agreeing upon the provisional stay of proceedings. Said Ruling has been appealed against by review petition and appeal by the public Prosecutor and the other plaintiffs. By a Ruling dated 25<sup>th</sup> October 2016 the review appeals were partially accepted, revoking the stay agreed upon against Rafael Gasca,

Francisco José Gonzalez Tardiu and Jordi Sabartes. An appeal was lodged by the Ascó Vandellós II Nuclear Association, A.I.E. and the defence of those under investigation, the penal proceedings continuing to be in process; for this reason, the contentious-administrative procedures continue to be suspended.

- > On 22<sup>nd</sup> February 2012 the former National Competition Commission notified ENDESA Distribution Electrica, S.A.U. of the decision to impose a fine of 23 million Euros for alleged abusive conduct in the electrical installations market, consisting of tendering economic offers for installations not reserved at the time of informing the supply requestor of the technical-economic conditions of his application (ENDESA/Fenie case). Likewise, on 26<sup>th</sup> April 2012, the competent Spanish authority imposed a sanction of 1 million Euros for a similar action limited to the geographical area of Mallorca (ENDESA/Asinem case). ENDESA Distribution Electrica, S.L.U. appealed before the National Court against both sanctions, and the Court suspended payment of both fines by Rulings of 21<sup>st</sup> May and 3<sup>rd</sup> July 2012. With regard to the first case (ENDESA/Fenie), the National Court rejected the contentious-administrative appeal lodged against the fine imposed on ENDESA Distribution Electrica, S.L.U. for the amount of 23.12 million Euros. In turn, a cassation appeal was lodged against said Sentence before the Supreme Court. The Supreme Court has accepted the appeal and this is currently pending sentence. With regard to the second case (ENDESA/Asinem), the National Court pronounced a sentence partially accepting the appeal lodged by ENDESA Distribution Electrica, S.A.U. and ordered the competent authority to reduce the fine. The Administration appealed against said Cassation Sentence. The Supreme Court pronounced sentence on 27<sup>th</sup> February 2015, partially accepting the appeal lodged by the Administration and confirmed the nullity of the sanction with regard to the amount of the fine as, according to the Supreme Court, the fine had been fixed "according to an unlawful method of calculation". Consequently, the Supreme Court required the National Market and Competition Commission to recalculate the fine in accordance with the interpretation made by the former of Articles 63 and 64 of Act 15/2007, of 3<sup>rd</sup> July, concerning the Defence of Competition. The matter is currently at a stage of furtherance of judgment.

- > On 23<sup>rd</sup> May 2013 the Director-General of Energy Policy and Mining agreed upon the commencement of sanction proceedings against ENDESA Generation, S.A.U. and Iberdrola Generation, S.A.U. as operators responsible for the Ascó I and Ascó II Nuclear Plants, for non-compliances concerning the loss of traceability in the control of disused radioactive sources from the aforementioned power plant, as an alleged serious offence as foreseen in article 86.b).3 of Act 25/1964, of 29<sup>th</sup> April, on Nuclear Energy, for non-compliance with the Plan for the Management of Radioactive Waste and Spent Fuel, section 3.1.2. concerning "Management Modalities Implemented in the Facility" and non-compliance with the Radiological Protection Manual, section 10.5, concerning radioactive sources, the non-compliance allegedly consisting of the loss of the information in question. This being a nuclear power station, in accordance with article 89.1 of Act 25/1964, of 29<sup>th</sup> April, on Nuclear Energy, violations typified as serious can be sanctioned with fines of between 0.3 million Euros at the lowest, to 9 million Euros at the highest. On 10<sup>th</sup> June 2013, ENDESA Generation, S.A.U. lodged the corresponding allegations, the traceability of the sources having been recovered, requesting the shelving of the case or, if applicable, in the event of said dossier not being accepted, once the recovery of the traceability of the information had been proven, that this conduct be considered a minor offence. By the ruling of the Ministry of Energy, Tourism and Digital Agenda of 29<sup>th</sup> January 2014, fines were imposed jointly and severally of 1.1 million Euros on ENDESA Generation, S.A.U. and Iberdrola Generation, S.A.U. for an offence considered to be serious in the minimum degree, for the loss of traceability in the monitoring of radioactive sources. ENDESA Generation, S.A.U. has proceeded with the payment of the fine to the extent of the amount assigned for its participation, of 1,017,000 Euros. An appeal against this ruling was lodged before the High Court on 4<sup>th</sup> April 2014. By court order issued on 27<sup>th</sup> March 2015, said appeal was declared closed; the suits are now pending assignation for voting and verdict. On 23<sup>rd</sup> December 2016, notification was given of the State Counsel's notice of opposition to the Appeal. On 13<sup>th</sup> February 2017, the Company's representatives appeared at the Provincial Court of Tarragona, this being the one indicated for voting and verdict of the appeal.



- > In 2013, the First Instance Court No. 4 at Algeciras (Cadiz) admitted for processing the suit by Obras y Construcciones Alcala Sur, S.L. against ENDESA Distribucion Electrica, S.L.U., requesting the sentencing of this last to pay 61 million Euros in indemnity to Obras y Construcciones Alcala Sur, S.L. for damages caused due to the breach of an Agreement between the two parties dated 16th January 2006; specifically, for the unrealised construction by ENDESA Distribucion Electrica, S.L.U. of a substation whose purpose was to supply electrical power to the over 450 homes belonging to the plaintiffs, in such a way that the lack of power prevented the obtaining of the First Occupancy Permit for the completed development. ENDESA Distribucion Electrica, S.L.U. understands that said claim is unfounded, in the absence of breach of contract, and due to the non-existence of a sufficient causal nexus between the activities or omissions of ENDESA Distribucion Electrica, S.L.U. and the unavailability of land whereon to locate the electrical substation, nor between the delay in the construction of the substation and the delay in the obtaining of the First Occupancy Permit of the houses. The prior hearing, set for 22<sup>nd</sup> June 2015, was suspended by the court, and its holding has once again been set for the following 29<sup>th</sup> March 2016. The prior hearing was held on 29<sup>th</sup> March, at which the trial was designated for two sessions to take place on 9th and 10th January 2017. On 9<sup>th</sup> January 2017, the trial was suspended due to the absence of writ of summons to the opponent party's expert witness and the non-completion of the official notice addressed to the Local Council of Los Barrios and to the Ministry of Development; the 16<sup>th</sup> February 2017 was set as the new date for the trial.
- > On 22<sup>nd</sup> January 2014, the Chairman of the Ebro Hydrographic Confederation issued a ruling by which it was agreed to require ENDESA Generation, S.A.U. to deliver 25% of the power produced in the hydroelectric facilities in the Noguera Ribagorzana basin and in the Mequinenza and Ribarroja facilities on the river Ebro, with effect from 1<sup>st</sup> January 2012, and approving settlements for the amount of 28 million Euros, in view of the impossibility of enforcement of the obligation in natura, as equivalent compensation for the period between 1<sup>st</sup> January 2012 and 30<sup>th</sup> September 2013. On 6<sup>th</sup> June 2014, a new payment of 2 million Euros was demanded by the Ebro Hydrographic Confederation as alternative compensation for the period between 1<sup>st</sup> October and 17<sup>th</sup> December 2013. The Ebro Hydrographic Confederation issued the resolution based on the provisions of article 10 of the 1946 Decree, which granted the Ribagorzana reserve to the National Institute of Industry, which was subsequently supported by the Decree granting the National Ribagorzana Hydroelectric Company the reserve of the middle section of the river Ebro between the Escatron and Flix plants. ENDESA Generation, S.A.U. filed contentious-administrative appeals, which continue under judicial review at Section 2 of the Contentious-Administrative Chamber of the High Court of Justice of Aragon.
- > The Third Additional Disposition of Act 12/2011, of 27<sup>th</sup> May, on civil liability for nuclear damages or those caused by radioactive material adds a modification to Act 25/1964, of 29<sup>th</sup> April, on Nuclear Power, on the tenure of authorisations for the operation of nuclear power plants, establishing that the titleholder of the authorisation or operator of a nuclear plant and the body responsible for the entirety of the facility must be a single legal entity, and established a lead time of one year for this adaptation, subsequent to the presentation of the corresponding adaptation plan, in the cases where the titleholders of the authorisation for operation of the nuclear power plants did not meet the conditions required. On 28<sup>th</sup> September 2011 ENDESA Generation, S.A.U. presented the required plan properly and on time, though the Directorate-General of Energy Policy and Mining did not consider the adaptation to be fulfilled. The co-owning companies were bound to draw up a single adaptation plan for each of the plants, underwritten by each of its co-owners. On 25<sup>th</sup> June 2012 the Ministry of Energy, Tourism and Digital Agenda commenced sanction proceedings against the companies owning the Ascó I, Ascó II, Vandellós II and Almaraz I and II nuclear plants for the committing of a serious offence, with a possible fine of between 0.3 million Euros and 9 million Euros. Subsequent to the pleas formulated by the companies, on 14<sup>th</sup> March 2013 the Ministerial Orders were issued, declaring non-compliance by the companies of the obligation to adaptation and the commission of a serious offence, with a fine of 0.9 million Euros per reactor. ENDESA Generation, S.A.U. proceeded to appeal before the High Court against the sanctions levied, and during the substantiation of the appeal, the cautionary suspension of the fines was agreed, subject to the presentation of

a guarantee of 3.6 million Euros. The High Court issued a verdict on 25<sup>th</sup> June 2014, rejecting the appeal, and against this, a cassation appeal was presented before the Supreme Court on 8<sup>th</sup> July 2014. By a sentence dated 8<sup>th</sup> February 2017, the Supreme Court rejected the appeal by ENDESA Generation, S.A.U. and sentenced the latter to pay the fine.

- > On 15<sup>th</sup> and 16<sup>th</sup> April 2014, notification was received of four resolutions from the Directorate-General of Energy Policy and Mining, all dated 10<sup>th</sup> April 2014, concerning infringement proceedings against ENDESA Generation, S.A.U. as owner or co-owner of the Almaraz I and Almaraz II, Ascó I and II and Vandellós nuclear power plants for the alleged continued non-compliance with the Sole Transitional Provision of Law 25/1964, of 29<sup>th</sup> April 1964, on Nuclear Power, with a fine of between 0.3 million Euros and 9 million Euros for each case filed, for a serious offence, specifically considering that the Adaptation Plan submitted was not the “corresponding adaptation plan” referred to in the Sole Transitional Provision of Law 25/1964, of 29<sup>th</sup> April, on Nuclear Power, and was not submitted within the time frame stipulated. On 25<sup>th</sup> September 2014, the Ministerial Orders were issued, resolving the sanction proceedings, and each of them imposing a fine of 3 million Euros. ENDESA Generation, S.A.U. lodged a joint appeal before the High Court against the 4 resolutions issued in the 4 proceedings. After requesting the precautionary suspension of the fines, the High Court accepted the measure subsequent to the provision of a guarantee of 9 million Euros in their ruling of 9<sup>th</sup> July 2015. The proceedings were declared closed on 6<sup>th</sup> July 2016, pending the passing of the sentence.

#### G4-S07 | G4-S08

- > On 17<sup>th</sup> July 2014, a resolution issued by the National Market and Competition Commission (NMCC) notified ENDESA Distribution Electrica, S.L.U. of the resolution of sanction proceedings imposing a fine of 1 million Euros for alleged abuse of its dominant position entailing wrongful receipt of payment for execution of installations for extension of the grid, charging an unregulated price for the grid extension which, according to the NMCC’s interpretation of the regulations, should be charged according to a scale. On the contrary, ENDESA Distribution Electrica, S.L.U. considers that it applied correctly the regulations of the sector, as confirmed

by numerous verdicts provided during the processing of the administrative procedure. ENDESA Distribution Electrica, S.L.U. lodged an appeal against this ruling at the High Court on the grounds that it was contrary to the law, and requested the precautionary suspension of the fine. The High Court suspended the execution of the fine as a precaution, and the matter is currently awaiting verdict from the High Court.

- > On 13<sup>th</sup> April 2015 ENDESA Generation, S.A.U. was notified of the settlements sent by the Guadalquivir Hydrographic Confederation for standby power for the electricity production of the hydroelectric stations at Tranco de Beas, Guadalmellato, Guadalen, Bembezar, Iznajar, Guadalmena, Doña Aldonza and Pedro Marín, corresponding to the second half-year of 2009 and the years 2010 to 2013, for the amount of 11 million Euros. Subsequently, for the year 2014, notification was received for 3 million Euros. Previously, in December 2014 and January 2015, ENDESA Generation, S.A.U. had received settlements for electricity production charges for these same plants for the amount of 3 million Euros for the years 2011 and 2012, and of 2 million Euros for 2013 and later of 1 million for 2014. ENDESA Generation, S.A.U. contested all these settlements through the economic-administrative channel before the Regional Economic-Administrative Court of Andalusia, requesting and obtaining the suspension of their payment.
- > In relation to the Extremadura eco-tax, an appeal has been lodged against the settlement claimed for 2006-2015 under the Government of Extremadura’s Law 8/2005, on Taxation of Facilities Affecting the Environment in the Autonomous Community of Extremadura. The appeal argues that this is unconstitutional, and that one of the key elements required for the tax is absent. With regard to the former, on 16<sup>th</sup> February 2015, the Constitutional Court, in a lawsuit lodged by Gas Natural Fenosa, SDG, S.A., similar to that of ENDESA Generation, S.A.U., declared the tax to be unconstitutional. On 11<sup>th</sup> June 2015, the Supreme Court accepted the appeal filed for 2006. On 29<sup>th</sup> January 2016, a favourable verdict from the Extremadura High Court of Justice was notified for the year 2007; this verdict is now final. On 23<sup>rd</sup> June 2016, a favourable verdict was received from the High Court of Justice of Extremadura for the year 2008, which has become final. On 23<sup>rd</sup> December 2016, notification was received of the verdict concerning the



year 2009, in which the Supreme Court rejected the cassation appeal lodged by the Regional Government of Extremadura, thus accepting ENDESA Generation's aspirations to nullify payment for that year. On 3<sup>rd</sup> November 2015, the Supreme Court propounded a new unconstitutionality issue concerning the eco-tax paid by Iberdrola, S.A. for the year 2012. The amount paid by ENDESA Generation, S.A.U. for this tax between 2006 and 2016 was 218 million Euros, to which the corresponding interest for late payment would be added. The collection rights corresponding to the years 2006 and 2007 have been cancelled in compensation for the payment of the tax for the year 2016, and the collection rights derived from the years 2008 and 2009 remain pending reimbursement.

- > On 11<sup>th</sup> January 2016 a lawsuit was received by which the Junta (regional government) of Andalusia claimed compensation from ENDESA Distribution Electrica, S.L.U. for damages derived from a fire allegedly caused by a power line located in Paraje Gatuna in Alhama de Almeria, which caused damage to 3,259 hectares of publicly- and privately-owned land, considered to be a danger zone. 35 million Euros were demanded for expenses related to fire extinguishing, environmental damages, and losses of products arising from the fire. The response to the claim was presented on 5<sup>th</sup> February 2016. The prior hearing, which had been set for 19<sup>th</sup> September, was suspended and has been set for 6<sup>th</sup> March 2017.
- > ENDESA Generation, S.A.U. lodged an appeal before the High Court of Justice of Catalonia against Decree 178/2015, of <sup>th</sup> August, passing the Regulations of the Tax on the Production of Electrical Power from Nuclear Sources, pronounced in the implementation of Act

12/2014, of 10<sup>th</sup> October, by the Parliament of Catalonia, which passed said Act. During the month of July 2016, and by virtue of the Ruling by the Constitutional Court dated 20<sup>th</sup> April 2016, declaring the unconstitutional nature of the tax, ENDESA has achieved the collection of 58 million Euros for the settlements appealed against for the years 2014-2016.

By a Ruling dated 24<sup>th</sup> October 2016, the contentious-Administrative Chamber of the Supreme Court declared unenforceable the financing system of the Subsidised Rate established in Article 45.4 of Act 24/2013, of 26<sup>th</sup> December, due to its incompatibility with the 2009/72/CE Directive by the European Parliament and Council, of 13<sup>th</sup> July 2009, on common regulations for the internal electricity market, acknowledging the right of the companies to recover the amounts contributed. The State Administration filed an ancillary suit for nullity of proceedings against said Ruling of the Supreme Court, which was rejected by the Ruling dated 14<sup>th</sup> December 2016; and on 2<sup>nd</sup> February 2017 lodged against the same an action for the protection of constitutional rights before the Constitutional Court.

The Company Management considers that the provisions listed in the Consolidated Statements of Financial Position adequately cover the risks relating to litigation, arbitration and other operations described, and therefore no liabilities other than those listed are expected therefrom.

Given the nature of the risks covered by these provisions, it is not possible to determine a reasonable timetable of payment or collection dates, if and when they arise.

The payments made in respect of litigation resolutions during the 2016 and 2015 financial years totalled 49 million Euros and 46 million Euros, respectively.

# 6. ENDESA's economic performance

## 6.1. Principal economic indicators

G4-DMA Performance | G4-EC1



### 6.1.1. Profits generated

ENDESA obtained a net profit of 1,411 million Euros during 2016, representing a 29.9% increase over the 1,086 million Euros obtained in 2015.

The net profit of the year 2016 includes a net positive impact of 38 million Euros from ENDESA's participation in the share capital of Enel Green Power España, S.L.U. In turn, the net profit of the year 2015 included a positive result of 10 million Euros from its 40% share in Enel Green Power España, S.A.U.

The distribution of net profit between ENDESA's businesses and their variations regarding the same period of the previous year is shown below:

|                                       | Millions of Euros |              |             |              |
|---------------------------------------|-------------------|--------------|-------------|--------------|
|                                       | Net Profit        |              |             |              |
|                                       | 2016              | 2015         | % Var.      | % of total   |
| Generation and Marketing <sup>1</sup> | 751               | 506          | 48.4        | 53.2         |
| Distribution                          | 771               | 581          | 32.7        | 54.6         |
| Structure and Others <sup>2</sup>     | (111)             | (1)          | Na          | (7.8)        |
| <b>TOTAL</b>                          | <b>1,411</b>      | <b>1,086</b> | <b>29.9</b> | <b>100.0</b> |

<sup>1</sup> Includes the net profit generated by Enel Green Power España, S.L.U. (EGPE) during 2016 and 2015, to the amount of 38 million Euros and 10 million Euros, respectively.

<sup>2</sup> Structure, Services and Adjustment.

### 6.1.2. Income, EBITDA and results of operations

Revenues reached 18,979 million Euros in 2016, compared with the 20,299 million Euros obtained in 2015, representing a 6.5% reduction. Of this amount, 18,313 million Euros correspond to sales figures (-5.0%) and 666 million Euros to revenues from other operations (-34.6%).

ENDESA's contribution margin for 2016 reached 5,652 million Euros, 171 million Euros more than the previous year (+3.1%). The gross earnings from operation (EBITDA) for 2016 reached 3,432 million Euros (+12.9%) and the before-tax earnings (EBIT) increased by 367 million Euros (+23.0%) in comparison with the previous year, reaching 1,965 million Euros.

#### Results 2016

|                    | Income      |             | Contribution margin |             | EBITDA      |             | EBIT        |             |
|--------------------|-------------|-------------|---------------------|-------------|-------------|-------------|-------------|-------------|
|                    | Mill. euros | % var. 2015 | Mill. euros         | % var. 2015 | Mill. euros | % var. 2015 | Mill. euros | % var. 2015 |
| Spain and Portugal | 18,979      | -6.5        | 5,652               | 3.1         | 3,432       | 12.9        | 1,965       | 23          |

## 6.1.3. Investments

In 2016, ENDESA's gross investment was 1,221 million Euros (1,084 million Euros in 2015), of which 985 million Euros correspond to tangible investments, 143 million Euros to intangible investments and 93 million Euros to financial investments, as detailed below:

### Gross Investments<sup>1</sup>

| Millions of Euros        | 2016 <sup>2</sup> | 2015         | % Var.      |
|--------------------------|-------------------|--------------|-------------|
| Generation and Marketing | 388               | 328          | 18.3        |
| Distribution             | 595               | 585          | 1.7         |
| Other                    | 2                 | 2            | —           |
| <b>Total Tangibles</b>   | <b>985</b>        | <b>915</b>   | <b>7.7</b>  |
| Generation and Marketing | 57                | 47           | 21.3        |
| Distribution             | 55                | 37           | 48.6        |
| Other                    | 31                | 26           | 19.2        |
| <b>Total Intangibles</b> | <b>143</b>        | <b>110</b>   | <b>30.0</b> |
| <b>Financial</b>         | <b>93</b>         | <b>59</b>    | <b>57.6</b> |
| <b>Total Investments</b> | <b>1,221</b>      | <b>1,084</b> | <b>12.6</b> |

<sup>1</sup> Do not include the investment in Enel Green Power España, S.L.U. (EGPE) or in Electrica del Ebro, S.A. (see section 2.1. Purchase of Enel Green Power España, S.L.U. (EGPE) and section 2.4. Scope of Consolidation of this Consolidated Management Report).

<sup>2</sup> Include the investments made by Enel Green Power España, S.L.U. (EGPE) from the date of its takeover for the amount of 14 million Euros.

The gross investments in generation during 2016 correspond mainly to investments performed on power plants which were already in operation on 31<sup>st</sup> December 2015, of which the investment performed on the Litoral power plant (83 million Euros) for its adaptation to European environmental standards is of particular note, enabling an extension of its useful life. Also included are the investments concerning the renewal of large components in our renewable technology assets.

Gross investments concerning marketing correspond mainly to the performance of activities related to Value Added Products and Services (VAPS).

With regard to gross investments on distribution, these correspond to extensions of the grid, and investment devoted to the optimization of its operation, in order to optimise the operation and quality of the same, to improve the efficiency and level of quality of service. Investment on the mass installation of smart remote meters and the systems for their operation is also included.

Gross investments in intangible assets correspond mainly to computer applications.

Financial investments include mainly guarantees set up for operation in the electricity market (40 million Euros) and the provision of funds to Nuclenor, S.A. (25 million Euros).

## 6.2. Generation of wealth in 2016

G4-9 G4-EC1 G4-DMA Economic development G4-EC4

ENDESA's activity as a producer and supplier of electrical power contributes to the economic and social development of the countries where it operates.

### Generation of wealth

| Millions of Euros                  | 2015   | 2016   |
|------------------------------------|--------|--------|
| Direct Economic Value Generated    | 20,278 | 18,906 |
| Economic Value Distributed         | 18,959 | 17,587 |
| Dividends*                         | 1,086  | 1,411  |
| Operating costs and other expenses | 15,935 | 14,430 |
| Personnel expenses                 | 1,332  | 1,128  |
| Taxes and duties **                | 396    | 404    |
| Investment in social development   | 8.23   | 8.7    |
| Finance expenses                   | 210    | 214    |
| Economic value retained            | 1,319  | 1,319  |

\* The Board of Directors of ENDESA, S.A. at their meeting held on 22<sup>nd</sup> November 2016, agreed to pay the shareholders a dividend corresponding to the income of the 2016 financial year of 0.70 Euros per share gross, the payment of which, made on 2<sup>nd</sup> January 2017, has entailed an outlay of 741 million Euros.

\*\* Includes corporate tax paid in the year on continuing activities, duties and other taxes.

G4-EC4

The balance of capital grants on 31<sup>st</sup> December 2016 amounted to 334 million Euros. This figure mainly includes subsidies received under the scope of collaboration agreements for the execution of plans for the improvement of the quality of electrical supply in the distribution grid, undersigned with the Ministry of Energy, Tourism and Digital Agenda and the Public Agencies of the Autonomous Communities, among others, for the construction of electrical distribution installations.

## 6.3. Fiscal transparency

### 6.3.1. Tax policy

ENDESA complies with tax regulations as a part of the principles inspiring the corporate responsibility of the Company, applying responsible tax policies and promoting a cooperative, transparent relationship with the Tax Authorities.

#### ENDESA honoured for its fiscal transparency

According to the second edition of the study published by the Commitment and Transparency Foundation, ENDESA, together with Telefónica, Iberdrola and BBVA are the most transparent Ibex-listed companies when reporting their fiscal responsibility.

Among the aspects where ENDESA stands out is the information published in the 2015 Sustainability Report.



In this vein, ENDESA's Board of Directors, at their meeting on 20<sup>th</sup> December 2010, agreed on ENDESA's joining the Code of Good Tax Practices. In compliance with the dispositions therein, the person responsible for ENDESA's tax affairs periodically informs the Board, via the Auditing Committee, of the tax policies followed by the Company and of the fiscal consequences of the most significant operations. On 25<sup>th</sup> January 2016, ENDESA's Board of Directors ratified the adherence of ENDESA, S.A. and its controlled Spanish subsidiaries to the Code, subsequent to the recent inclusion in the same of an Appendix with new conduct obligations for both the Company and the Authorities.

On the other hand, and in compliance with the provisions of Act 31/2014, of 3<sup>rd</sup> December, whereby the Corporate Enterprises Act was modified, on 15<sup>th</sup> June 2015 ENDESA's Board approved both ENDESA's Tax Strategy and its risk management and control Policy, tax risks included. Both documents are available on the company's website, in the "Corporate Governance" section.

Likewise, on 30<sup>th</sup> January 2016, ENDESA's Board passed ENDESA's Tax Risk Control and Management Policy, whose aim is to establish a fiscal control framework within the Company.

### 6.3.2. Fiscal contribution

In line with ENDESA's commitment regarding fiscal management, since 2014 the payment of the most significant taxes in the countries where it operates, principally Spain and Portugal, has been voluntarily published, illustrating our commitment to transparency in the payment of taxes.

ENDESA's activity not only generates a significant direct contribution to the Authorities by means of the payment of taxes, but also a considerable contribution via the collection from third parties of taxes generated as a consequence of the company's activities. For this reason, it is considered proper that both amounts be shown, although separately.

In 2016, ENDESA's total tax contribution amounted to 4,081 million Euros, of which 1,578 million corresponded to monies paid by the Group and 2,503 million to amounts collected as a consequence of ENDESA's business activity.

## ENDESA's total contribution 2016

| Millions of Euros                                     | Amounts paid | Amounts collected |
|---|--------------|-------------------|
| <b>I. TAXES PAID IN THE FISCAL GROUP:</b>             |              |                   |
| <b>Taxes on profits</b>                               | <b>207</b>   | <b>—</b>          |
| Company Tax <sup>1</sup>                              | 207          | —                 |
| <b>Subtotal, taxes paid in the Fiscal Group</b>       | <b>207</b>   | <b>0</b>          |
| <b>II. TAXES PAID TO THE TREASURY:</b>                |              |                   |
| <b>Taxes on profits</b>                               | <b>29</b>    | <b>53</b>         |
| Tax on Commercial and Professional Activities         | 29           | —                 |
| Other deductions                                      | 0            | 53                |
| <b>Taxes on properties</b>                            | <b>68</b>    | <b>0</b>          |
| Real Estate tax (municipal)                           | 61           | —                 |
| Other <sup>2</sup>                                    | 7            | —                 |
| <b>Employment-associated taxes</b>                    | <b>124</b>   | <b>239</b>        |
| Payments made to Social Security <sup>3</sup>         | 124          | 19                |
| Work performance deductions                           | —            | 220               |
| <b>Taxes on products and services</b>                 | <b>228</b>   | <b>1,304</b>      |
| VAT paid <sup>4</sup>                                 | 1            | 1,304             |
| Tax on occupation of public thoroughfares (municipal) | 189          | —                 |
| Other charges in the public domain <sup>5</sup>       | 39           | —                 |
| <b>Environmental taxes</b>                            | <b>872</b>   | <b>551</b>        |
| Electricity Production Value Tax                      | 308          | —                 |
| Nuclear fuel tax                                      | 125          | —                 |
| Hydraulic dues  | 40           | —                 |
| Nuclear service taxes                                 | 179          | —                 |
| Environmental taxes (regional)                        | 56           | —                 |
| Tax on electricity                                    | —            | 496               |
| Tax on hydrocarbons                                   | 24           | 53                |
| Coal tax  | 128          | 1                 |
| Others  | 12           | —                 |
| <b>Subtotal taxes paid in Spain<sup>6</sup></b>       | <b>1,321</b> | <b>2,147</b>      |
| <b>Taxes paid outside Spain<sup>7</sup></b>           | <b>49</b>    | <b>356</b>        |
| <b>Subtotal taxes paid in all countries</b>           | <b>1,371</b> | <b>2,503</b>      |
| <b>TOTAL TAX CONTRIBUTION</b>                         | <b>1,578</b> | <b>2,503</b>      |
| <b>III. OTHER REGULATORY PAYMENTS<sup>8</sup>:</b>    |              |                   |
| <b>Rates subsidy</b>                                  | <b>46</b>    |                   |
| <b>Energy Efficiency</b>                              | <b>30</b>    |                   |
| <b>Subtotal other regulatory payments</b>             | <b>76</b>    | <b>0</b>          |
| <b>TOTAL PAYMENTS TO PUBLIC AUTHORITIES</b>           | <b>1,631</b> | <b>2,525</b>      |

<sup>1</sup> As the requirements foreseen in Chapter VI of Item VII of Act 27/2014, of 27<sup>th</sup> November, concerning Company taxes are fulfilled; since the 2010 financial year ENDESA and certain subsidiaries resident in Spain belong to the Fiscal Consolidation Group of which the leading Company is Enel S.p.a., and the Company representing said Group in Spain is Enel Iberoamerica. It is this Company, which, as the body representing the Fiscal group, maintains the final relationship with the Treasury with regard to this Tax.

<sup>2</sup> The amount corresponding to "Other" in the "Taxes on Property" category refers mainly to the Tax on the Increase in Value of Urban Land, the Tax on Buildings, Installations and Works, and fees for permits and construction licences.

<sup>3</sup> The Social Security payments made by ENDESA are included as, in line with the philosophy implemented by the OECD in the analysis of a country's tax burden, these are a contribution of an obligatory nature which generally constitutes a significant part of a country's income and which, by virtue of its nature as a tax rather than a contribution, is considered clearly a tax in our country.

<sup>4</sup> With regard to the V.A.T. paid, the information relates to the V.A.T. actually paid (the difference between the output V.A.T. and the deductible input V.A.T.).

<sup>5</sup> The concept "Other charges in the public domain" includes amounts mainly related to the granting and regulation of dams, public rates and others.

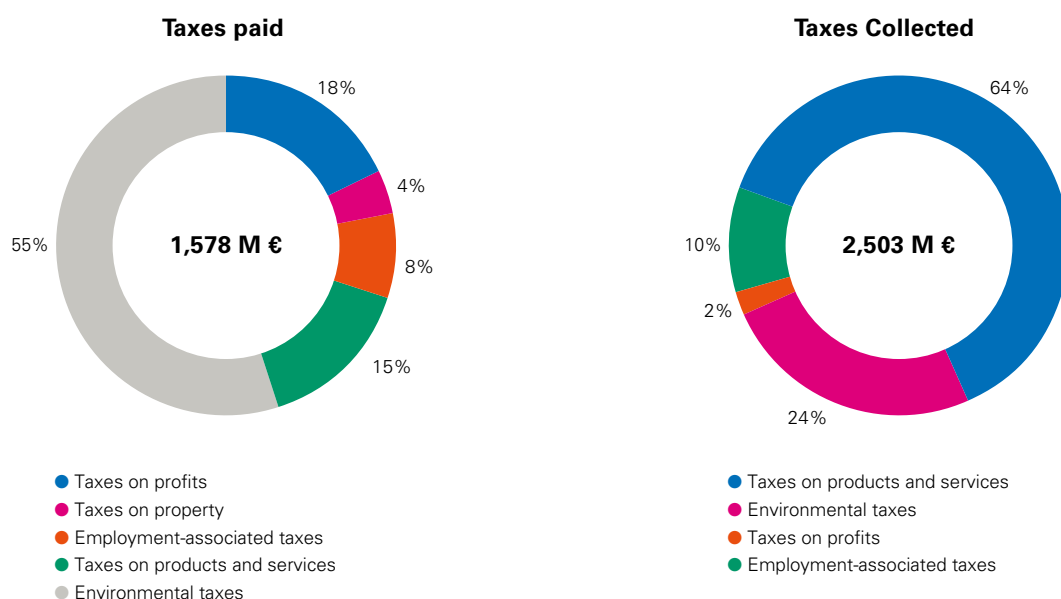
<sup>6</sup> Where applicable, each tax concept includes amounts paid by way of outlay resulting from inspection proceedings and voluntary regularisations.

<sup>7</sup> For the purpose of calculating the total of taxes paid outside Spain, ENDESA's presence in Portugal, Holland, Morocco, Germany and France is included.

<sup>8</sup> Likewise, "Other Regulatory Payments" are reported separately; these are paid to the Authorities by ENDESA as a statutory requirement, a consequence of the regulation of the sector in which it operates, although these are not strictly taxes and therefore cannot be included in the Total Tax Contribution; specifically:

- Energy efficiency: gas- and electricity-marketing companies are bound by the energy efficiency obligation system to make an annual financial contribution to the national energy efficiency fund. This obligation was instituted by Royal Decree 8/2014, of 4<sup>th</sup> July.
- Rates subsidy: an obligation of companies owning electricity generation facilities to contribute to the financing of the Rates Subsidy, instituted by Royal Decree-Act 6/2009, of 30<sup>th</sup> April.

## Breakdown of total tax contributions



## Breakdown of total tax payments by geographical area

As is logical, Spain is the jurisdiction where ENDESA has paid most taxes; these represent over 90% of the total of taxes paid and collected by ENDESA during the 2016 financial year.

## Total amount of payments made to Public Authorities. Breakdown by countries where ENDESA operates

| Country  | Millions of Euros |              |                    |              |
|--|-------------------|--------------|--------------------|--------------|
|  | Spain             | Portugal     | Other <sup>1</sup> | Total        |
| Taxes paid   | 1,503             | 17           | 35                 | <b>1,555</b> |
| Taxes collected  | 2,147             | 199          | 157                | <b>2,503</b> |
| <b>Total Tax Contribution</b>                          | <b>3,673</b>      | <b>216</b>   | <b>192</b>         | <b>4,801</b> |
| <b>TTC Percentage of total</b>                         | <b>90%</b>        | <b>5,29%</b> | <b>4,71%</b>       | <b>100%</b>  |
| Other regulatory payments                              |                   |              |                    |              |
| Rates subsidy  | 72                | 0            | 3                  | <b>75</b>    |
| Energy efficiency                                      | 30                | 0            | 0                  | <b>30</b>    |
| <b>Total other payments made to Public Authorities</b> | <b>102</b>        | <b>0</b>     | <b>3</b>           | <b>105</b>   |
| <b>Total payments made to Public Authorities</b>       | <b>3,775</b>      | <b>216</b>   | <b>196</b>         | <b>4,186</b> |

<sup>1</sup> The section "Other" refers to ENDESA's presence in Holland, Morocco, Germany and France.

### 6.3.3. Use of tax havens

ENDESA's policy is not to make investments in or via territories considered to be tax havens for the purpose of reducing the tax burden. They are only performed in the event of their existing significant economic reasons, other than that mentioned above, to justify this. Furthermore, ENDESA has never employed entities established in tax havens with the intention of concealing the true owner of income, activities, assets or rights.

It is true that ENDESA performs occasional, non-relevant activity in other countries, which, although not considered tax havens by the Spanish State Tax Administration Agency, are considered by certain external observers to be territories that, in their opinion, have a tax regime more favourable than that of Spain.

The truth is that, due neither to the significance of the activities performed by the Company in these geographical areas, nor to the legal classification granted to these countries by the Spanish Tax Authorities, is their inclusion in the Sustainability Report justified. However, aware of the importance that society should observe that ENDESA always acts with absolute transparency, it considers it expedient to report the activities performed by its subsidiaries in territories that, although not tax havens, may occasionally be considered to have low tax requirements:

> **Holland.** It must be borne in mind that the economic and judicial characteristics of Holland enable direct access to the most efficient financial markets, the adoption of more agile judicial systems capable of providing greater flexibility to companies established there, resulting in a lower incidence of compliance costs and a greater speed of access to sources of finance.

In all cases, it is important to mention that Holland, although it is included in the Tax Justice Network list (November 2009), has had a signed agreement with Spain to prevent Double Taxation, with an Information Exchange clause, since October 1972, and maintains a Companies Tax rate very similar to that in Spain.

ENDESA's financial interests in the country are as follows:

- ENDESA owns 100% of International ENDESA, B.V., a Dutch company established in 1993, which captures funds for the ENDESA Group via the Euro Medium Term Note (EMTN) and Euro Commercial Paper Programme (ECP) debt issuance. The company's activity has diminished significantly over the last years, and since 2005, ENDESA's listed debt issuance is performed from ENDESA Capital, S.A., an entity residing in Spain. The average level of debt in 2016 was 596 million Euros, and it is expected to maintain an average balance of 1,200 million Euros in 2016.
- On the other hand, until May 2016 ENDESA owned 50% of Enel Insurance, a Dutch company formed in 2011 to carry out the Enel group's insurance activity. This share was sold in May 2016.

> **Luxembourg.** ENDESA owned, indirectly and via Enel Insurance, 50% of Compostilla, Re., a reinsurance company. This Luxembourgish company was sold in February 2016.

In all cases, it is important to mention that Luxembourg, although it is included in the Tax Justice Network list (November 2009), is a country which has had a signed agreement with Spain to prevent Double Taxation since June 1986, and a Protocol for the Exchange of Information since November 2009, and maintains a Companies Tax rate higher than that of Spain.

## 6.4. Creation of value for shareholders

### 6.4.1. ENDESA's share performance

The 2016 Stock Market year was one of ups and downs characterised by significant political events that generated great unrest in the markets. Among these, of particular note were the referendums held in the United Kingdom



by which the country's exit from the European Union was passed, and in Italy in December on a proposal for a reform of the Constitution, which finally was rejected. General elections were also held in a number of countries, particularly notable being the United States in November, with a change in the Presidency that was not foreseen by the opinion polls, and in Spain in June, although a government was not formed until November.

The markets were also expectant regarding doubts about a possible economic recession in China subsequent to the country's decision to devalue their currency in January, and also the decisions concerning interest rates adopted by the main Central Banks. In December 2016, the United States Federal Reserve resumed its upward trend in interest rates, while the European Central Bank decided to maintain and extend its bond purchase programme. This different monetary policy between the United States and the European Union was reflected in the dollar, which moved to almost equality with the euro.

In spite of this scenario of uncertainty and political risk, the main stock markets worldwide managed to close the year with positive figures, the only exceptions being the Italian market, whose MIB index fell by 10.2%, and the Spanish market, where the selective Ibex-35 index finally fell by 2.01%; both markets being under pressure due to the bad performance of the banking sector. The "Eurostoxx 50" pan-European index ended with a slight gain of 0.7%, less than that of the French stock market (Cac-40: +4.86%) and that of Germany (Dax: +6.87%), which appeared much more optimistic. However, most noteworthy among European markets was the positive performance of the British Stock Exchange, as the Footsie 100 index showed a substantial rise during the second half of the year, once the result of the referendum deciding on their exit from the European Union was known. The depreciation of the pound was favourable to the market quote of British export companies, which led the index to close the year with a noteworthy +14.43%, even reaching historic maximums.

Among the remainder of non-European markets, the good performance of the United States indices was of particular note, reaching new maximums in an election year. The "Dow Jones" index closed in the lead with a revaluation of 13.42%, followed by "S&P 500" (+9.54%) and "Nasdaq" (+5.89%). The Japanese "Nikkei" index showed a much more moderate performance and closed the year almost without change (+0.42%). Also with positive fig-

ures, the Latin American markets experienced a year of recovery and closed 2016 with significant earnings, helping to maintain the market quotes of the Spanish companies with interests in that region. The Peruvian stock market led the classification with a rise of 58.06%, followed by those of Argentina and Brazil, with rises of 44.9% and 38.9%, respectively. Slightly more moderate, but also with positive figures, were the stock market results of Colombia (+17.16%), Chile (+12.8%) and Mexico (+6.20%).

In Spain, the Ibex-35 index (-2.01%) closed with losses for the second consecutive year, but of particular note was its recovery from the minimum of 27th June, shortly after knowledge of the result of the British referendum, when it accumulated a fall of nearly 20%. Of particular significance was the rise of the last month, by 7.6%, representing the best month of December of the last 20 years, although this was not enough to close the year with positive figures.

By sectors, the worst performance corresponded to the banking sector, infected by the liquidity situation of Italian banks and the exposure of certain Spanish banks to regions under the spotlight of political uncertainty, such as the United Kingdom, Mexico, the United States or Turkey, a country which suffered an unsuccessful coup d'état in July. Conversely, the values associated with the evolution of basic commodities were at the forefront of Ibex, encouraged by the considerable recovery of prices during the year, as was the case with steel and crude oil. The barrel of Brent oil rose by 52% before closing at maximum annual levels of around 57 dollars, pending the coming into effect of the historic agreement reached by the OPEC in November to reduce the monthly production of crude oil as from 1st January 2017.

The general evolution of the European Electricity Sector reflected in the sectorial "Dow Jones Eurostoxx Utilities" index was also negative. The index closed with a fall of 7.75%, affected by an asset rotation process during the second half of the year faced with the prospect of an increase in interest rates. The worst performance of this index corresponded to the French and German companies, due to doubts concerning the capability of their balances to face up to regulatory changes and adverse market conditions. In the particular case of the two main German companies, E.On AG and RWE AG, both carried out corporate restructuring processes, resulting in division and the creation of two new companies, which commenced trading and joined the sectorial index in the last quarter, Uniper SE and Innogy SE, respectively.

Among the Spanish electricity companies, which closed with general losses of nearly 5%, ENDESA led the sector with a revalorisation of 8.64%, being seen as one of the star defensive values of the year. For investors, the main attraction of ENDESA lies in the high payments made to the shareholders by means of its dividends policy, confirmed and improved in the updating of the 2017-2019 Strategic Plan carried out on 23rd November last. Another well-considered aspect of the new Plan was the new cycle of investments undertaken by the Company, materialised in an increase of 1,000 million Euros of additional investment during the period, mainly directed toward the new line of business of renewable generation.

With regard to the dividends policy, charged against the profits of 2016, and in line with the new forecast, ENDESA anticipates the payment of a dividend of 1.32 Euros per share, 29% more than in 2015, entailing a profitability of over 7% for those shareholders already possessing their shares on 31st December 2015. During the 2017-2019 period, the remuneration will reach 100% of the ordinary net profit of the Company, with a minimum dividend of 1.32 Euros per share set for the year 2017.

In this vein, the positive stock profitability achieved by ENDESA in 2016 should be supplemented by a profitability by dividend of 5.54%, provided by the 1.026 Euros per share paid as an ordinary dividend and charged against the profits of 2015, enabling the total profitability for the shareholder, calculated as the sum of stock profitability plus profitability by dividend, to reach 14.18% in 2016.

ENDESA's share price closed the year at 20.125 Euros per share, close to the maximum annual level of 20.975 Euros reached on 27th December. The closing minimum, 15.74 Euros per share, was registered on 11th February 2016, being drawn down, together with all the values at the Ibex 35, due to concern over the recession in China.

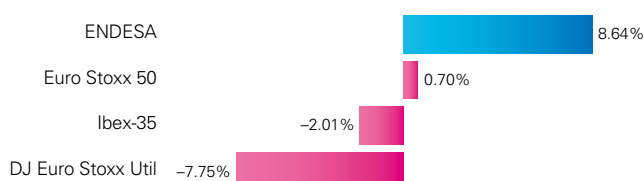
**ENDESA's share price closed the year at 20.125 Euros per share**

## Main statistical data of ENDESA shares in 2016

| Continuous market     | Maximum | Minimum | Average | Close  | % Total Revaluation | % Total Profitability | Volume of shares traded |
|-----------------------|---------|---------|---------|--------|---------------------|-----------------------|-------------------------|
| ENDESA (euros/acción) | 20.98   | 15.74   | 18.15   | 20.125 | 8.64%               | 14.18%                | 596,186,291             |

Source: Madrid Stock Exchange.

## ENDESA's evolution at the Madrid Stock Exchange and comparison with the main reference indices. Year 2016



At the close of the year, ENDESA's capital stock was 21,307 million Euros, earning it 6<sup>th</sup> place among the Ibex-35 most capitalized companies.

## 6.4.2. Dividend

G4-13

In line with the Dividends Policy passed by ENDESA's Board of Directors on 20<sup>th</sup> November 2015 for the 2015-2019 period, ENDESA's General Shareholders' Meeting, held on 26<sup>th</sup> April 2016, passed the distribution of a total ordinary dividend charged against the closed profits of the year 2015, at a gross amount of 1.026 Euros per share, a figure equalling 1,086 million Euros. This dividend was paid to the shareholders in cash, in two instalments paid on 4<sup>th</sup> January, 0.4 Euros gross per share (424 million Euros in total), and 1<sup>st</sup> July, 0.626 Euros per share (663 million Euros).

Regarding the coming years, the Board of Directors of the Company, at their meeting held on 22<sup>nd</sup> November 2016, passed the following Dividends Policy for the 2016-2019 period:

- > **Year 2016:** the ordinary dividend per share which it shall be agreed to distribute, to be paid for with the income of the financial year, shall be equal to 100% of the net income attributable to the Parent Company resulting from the consolidated annual accounts in the event that said amount should be greater than that resulting from applying a minimum growth of 5% over the ordinary dividend distributed and paid for by the previous year.
- > **Years 2017 to 2019:** the ordinary dividend per share, which it shall be agreed to distribute, to be paid for with the income of the two financial years, shall be equal to 100% of the ordinary net income attributable to the Parent Company in the consolidated annual accounts of the Group led by the same.  
Specifically for the year 2017, the Board of Directors established that said ordinary dividend shall amount to at least 1.32 Euros per share gross.

It is the intention of the Board of Directors that payment of the ordinary dividend shall be made exclusively in cash, by payment in two instalments (January and July) on the specific date to be determined in each case and which shall be appropriately broadcast.

With regard to the ordinary dividends to be paid for with the income of the 2016 financial year, the Board of Directors of

ENDESA, S.A., at the meeting held on 22<sup>nd</sup> November 2016, agreed to distribute to the shareholders an interim dividend for the gross amount of 0.70 Euros per share.

Payment of this dividend, entailing an outlay of approximately 741 million Euros, was fulfilled on 2<sup>nd</sup> January 2017.

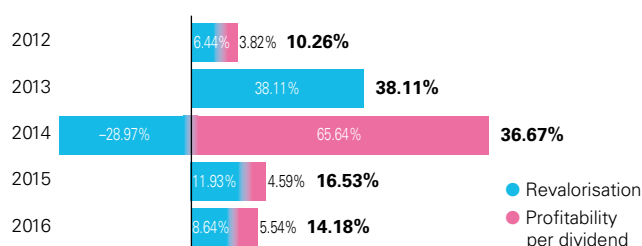
## 6.4.3. Profitability

As mentioned above, the total profitability for ENDESA's shareholders was 14.18% in 2016, 8.64% originating from the stock market returns achieved by the shares, and the remaining 5.54% of the profitability coming from the dividends paid during the year.

The total profitability of ENDESA's shares was 14.18% in 2016

During the last 5 years, the average total profitability for ENDESA's shareholders has been 23.15% per year.

Evolution of total profitability for ENDESA's shareholders 2012-2016



## 6.4.4. IBEX 35

Since its return to the Ibex-35 Index in November 2014, ENDESA has been listed with a coefficient of 40% of its capital, as its free float is 29.9% in a range from 20% to 30%.

With this balance, ENDESA's shares ended the year 2016 in 16th place in the IBEX 35, due to its level of free-floating capitalisation.

## 6.4.5. Transparency and close relations with Shareholders and Investors

G4-26

ENDESA maintains a constant relationship with its shareholders, private and institutional investors, as well as leading stock market analysts, providing them with a steady stream of detailed information through the Investor Relations Department and Shareholders' Office in Madrid.

In this regard, on 11<sup>th</sup> November 2015 ENDESA's Board of Directors, in compliance with the Code of Good Governance for Listed Companies, approved the "Policy of Communication and Contact with shareholders, institutional investors and proxy advisors". The main objective of this Policy is that the Company should maintain complete, truthful, transparent information, paying permanent attention to the relationship with shareholders and institutional investors.

The general principles governing this policy are transparency, immediacy, continued information, equality of treatment, affinity to company interests and compliance with regulations.

The Auditing and Compliance Committee is the body responsible for supervising the communications strategy and shareholder and investor relations, including small and medium shareholders. In compliance with this policy, on 19<sup>th</sup> December the Auditing and Compliance Committee presented the Board of Directors with the 2016 report on Supervision of Communications Strategy and Relations with Shareholders, Investors and Other Stakeholders.

The conclusions of this report highlighted that ENDESA's communication channels are appropriate and that communications with shareholders, investors and other stakeholders are performed correctly, in compliance with current regulations and with the general principles of ENDESA's Policy, and according to the best practices of corporate governance.

In this respect, it should be noted that ENDESA was the listed company that achieved the second-best grade in the Reporta 2016 report, which analyses the quality of the publicised information on companies listed in the General Index at the Madrid Stock Exchange (IGBM).

## 6.4.6. Investor Relations Department

G4-26

Among the activities carried out by the Investor Relations Department in 2016, of particular note are the execution of public presentations to analysts and investors on the quarterly results of the Company and the updating of its strategic plan.

In this regard, on 23rd November 2016 ENDESA presented to the market an update of its strategic plan for the 2017-2019 period.

ENDESA executed 2 Non Deal Roadshows. The first, in Europe and the United States, took place in March, subsequent to the presentation of the results of the year 2015. The second took place in November, following the presentation of the 2017-2019 Strategic Plan update, with the aim of providing in-depth information on said update to the Company's principal investors. For these two Roadshows ENDESA visited a total of 11 cities, meeting with 91 investors. It also organised 6 Reverse Roadshows, meeting with 56 investors in Madrid.

ENDESA's Investor Relations Department also took part in a total of 14 international conferences on the sector, where it was able to meet with 155 investors.

It should also be noted that as part of its daily activity, the Investor Relations Department attended a total of 779 queries from analysts, investors and rating agencies by telephone, e-mail or face-to-face.

On 26th April 2016, at its headquarters in Madrid, ENDESA held its Ordinary General Shareholders' Meeting, at which all the items on the agenda were approved, a quorum of 86.358% of the share capital being present.

## 6.4.7. ENDESA's shareholder information office

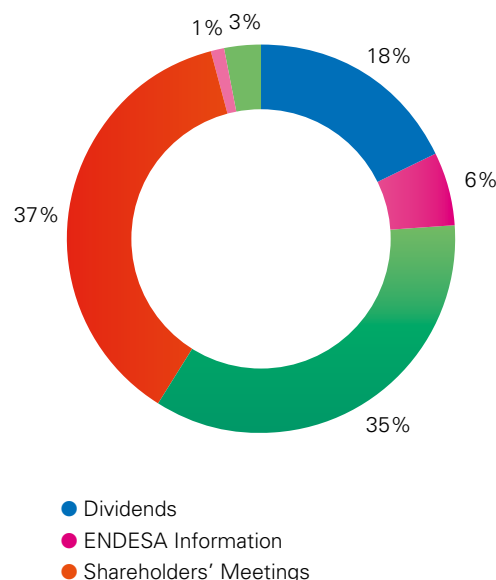
G4-26

During 2016, 1,958 telephone calls and 88 visits were received, and 1,209 documentation deliveries were performed.

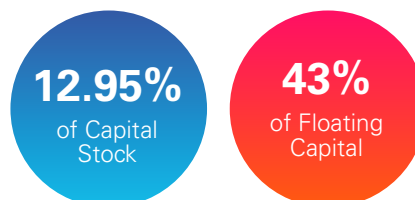
One of the most significant channels which the Company places at the disposal of its private shareholders is the "Information for Shareholders and Investors" included on its corporate website ([www.endesa.com](http://www.endesa.com)).

### 3,255 requests from shareholders were handled by the Shareholders' Office

#### Type of information requested from the shareholders' information office in 2016



## 6.5. Attraction of socially responsible investment



ENDESA strives to be a company of reference for investors who hold present social, environmental and ethical considerations in their investment policies, generating a long-term relationship with them.






For the second year running, in 2016 ENDESA performed a shareholder identification study, focusing particularly on those foreign institutional investors who follow a responsible investment policy and who are active in non-financial matters. Said study revealed that this type of investor represents at least 12.95% of ENDESA's capital stock and 43% of its floating capital. In compliance with Spanish legislation concerning the identification of shareholders, the analysis was performed on an investment advisor level, being unable to go more deeply into the investment fund level.

### 6.5.1. Sustainability indices

ENDESA is aware that a prominent presence in the main socially responsible investment indices attracts this type of investors, and therefore the Company plays a noteworthy part to this end. Presence in these indices also enables acknowledgment of ENDESA's genuine, firm commitment to the integration of social, environmental, ethical aspects and good governance into business management and decision-making processes, reaching a high level of performance. What is even more important, it enables ENDESA to go more deeply into that genuine, firm commitment by identifying with exactitude areas for im-

provement regarding the integration of sustainability into Company management.

In 2016, ENDESA was included in 5 of the main sustainability indices worldwide.

| Family              |          |          |                   |                     |    |
|---------------------|---|---|--|--|---|
| Main indices        | DJSI World  | Euronext VIGEO World 120<br>Euronext VIGEO Europe 120<br>Euronext VIGEO Eurozone 120      | STOXX Global ESG Leaders<br>STOXX Global ESG Social Leaders<br>STOXX Global ESG Governance Leaders | CDP Leadership Index<br>CDP Water Index  | ECPI Global Carbon Equity index   |
| Selection Criteria  | 10% companies of the "electric utilities" sector with best performance                    | 120 companies with best performance   | Companies with scores over 50/100 in the 3 dimensions and over 75/100 in at least one dimension    | All companies presenting information on their strategy and performance in climate change matters       | Companies in the utilities, materials, healthcare, industrial or energy sectors with best performance in sustainability (over E-) and best strategy in the fight against climate change |
| Assessment Criteria | Environmental, social and economic performance, following 24 criteria and +600 indicators | Environmental, social and economic performance, following 38 criteria and +300 indicators | Environmental, social and economic performance, following 48 criteria                              | Strategy and transparency in matters concerning the fight against climate change and water (CDP water) | Environmental, social and economic performance. Special analysis of matters concerning the fight against climate change   |
| Score               | <b>86</b><br>7 <sup>th</sup> position in sector   | <b>62</b><br>2 <sup>nd</sup> position in sector   | <b>A+</b><br>Environmental: 55<br>Social: 99.7<br>Governance: 91<br>Leader in Social P.            | <b>B</b> (climate)<br><b>A-</b> (water)  | Included  |
| Periodicity         | Annual  | Six-monthly   | Six-monthly  | Annual   | Annual  |
| Year included       | Since 2016  | Since 2012 (Europe and Eurozone) and 2014 (World)   | Since 2016   | Desde 2006 (climate) y 2010 (water)  | n/a   |

## 7. About this report

G4-28 G4-29 G4-30 G4-31 G4-33

The 2016 Sustainability Report is the sixteenth published by the Company since the publication of Sustainability Reports commenced in 2001; it has continued on a yearly basis since then. ENDESA has prepared its Sustainability Report in accordance with the Global Reporting Initiative (GRI) G4 Guideline, an essential option. The Index of GRI content may be found in Appendix III.

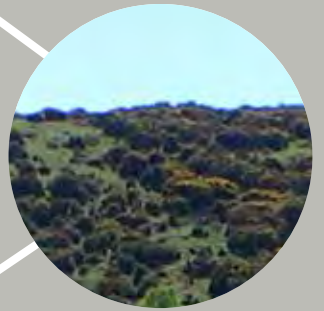
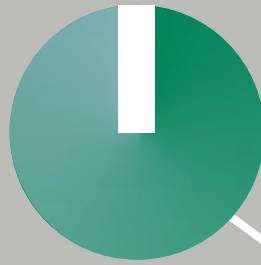
With this 2016 Sustainability Report, ENDESA hopes to provide a transparent, global view of the Company's performance in the field of Sustainability, in accordance with its current Sustainability Policy and its 2016-2019 Sustainability Plan, which has already been updated to the 2016-2020 Plan.

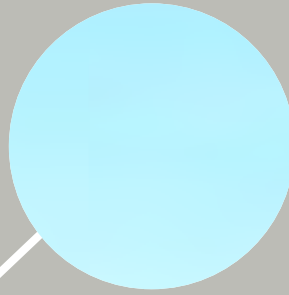
The Sustainability Report is published alongside other annual Company reports, such as Legal Documentation and the Corporate Governance Report; likewise, the content of the Sustainability section of ENDESA's website ([www.endesa.com](http://www.endesa.com)).

The Board of Directors, the Company's supreme governing body and the top management are involved in the request for external verification, assigned to the firm Ernst & Young, an organization of proven competence and external to the Company, which applies professional criteria and follows empirically-based systematic verification processes. The independently-reviewed public report is included in Appendix II.









2\_Defining priorities

# 1. Identification process for priority issues

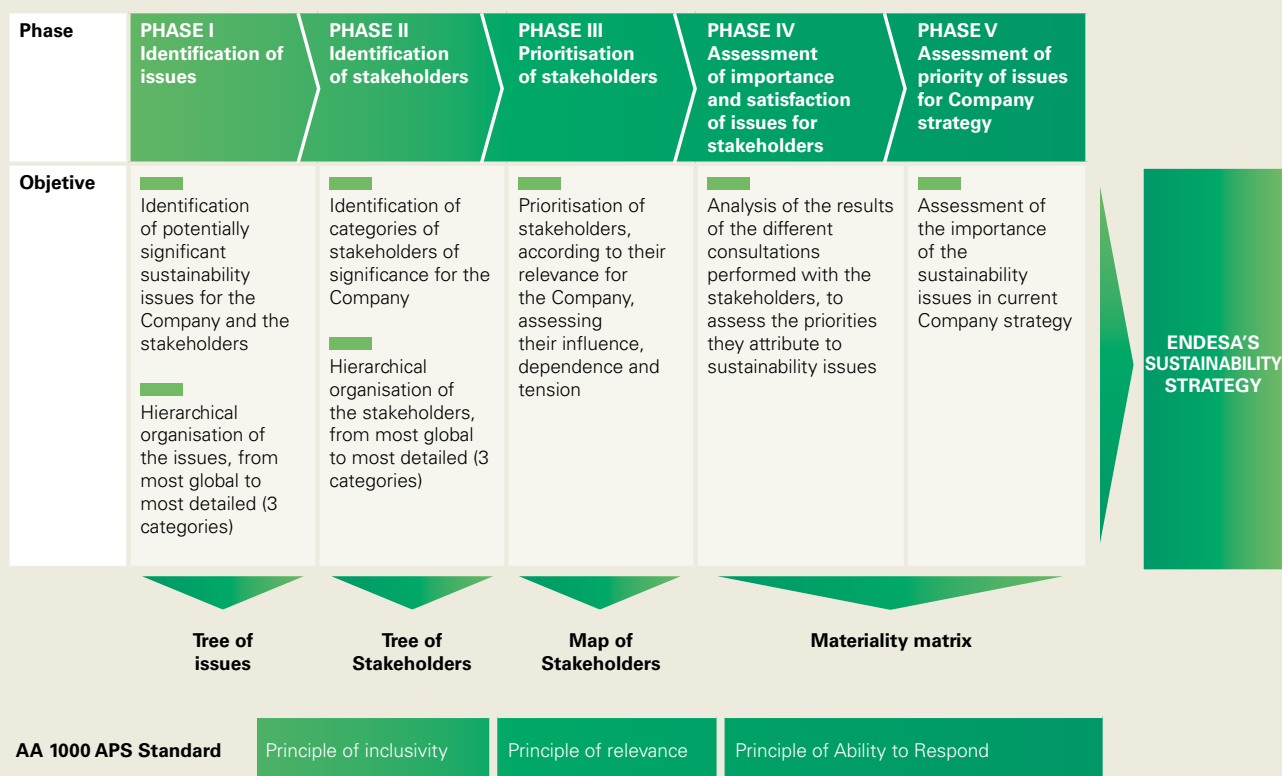
G4-18

In order to integrate the expectations of the stakeholder groups in a structured manner, and in line with the company purpose, each year ENDESA performs a process of identification of priority issues, assessing and selecting the economic, ethical, environmental and social issues which are relevant to the stakeholders and which are part of the company's strategic priorities.

The results obtained in this process contribute to strategic business planning and to the design of ENDESA's sustainability plans. They also determine the content of the Sustainability Report and contribute to the effective management of the stakeholders and their expectations.

For the execution of the process, ENDESA implements the methodology developed by the Enel Group for all its companies, which is in line with the international AA 1000 APS standard. The aim of this standard is to guide the organisation in the strategic management of interaction with its stakeholders by complying with a set of principles, after the correct identification of the latter (Principle of Inclusivity), the prioritisation of these issues which require attention from the Company (Principle of Relevance), and the design of the responses (Principle of Ability to Respond) to the expectations which create greatest value for ENDESA and for the community to which it provides services.

## Identification process for priority issues



## 2. Participation of stakeholders

Awareness of stakeholders' expectations is a cornerstone of ENDESA's Sustainability strategy. This approach is intended to identify drivers, which will make safe, sustainable and competitive energy models viable, and to develop innovative, exhaustive and pioneering approaches to anticipate events, manage risks and seek differentiation.

ENDESA's commitment to maintaining a constant dialogue with the stakeholders is a fundamental element of the Enel Group's "Open Power" statement, by means of which the Company will be even more open to the participation and cooperation of its stakeholders in order to successfully face future challenges.

All in all, ENDESA considers that management and dialogue with stakeholders contributes to:

- > Improving risk and opportunity management.
- > Early identification of relevant trends and issues.
- > Enhancing credibility and confidence, enabling the creation of synergy.
- > Favouring decision-making processes.
- > Revealing opportunities for improvement and other business opportunities.

Supervision of the stakeholder management process is included among the responsibilities assigned to the Auditing and Compliance Committee of ENDESA's Board of Directors.

### 2.1. Identification of stakeholders

G4-24

ENDESA regularly reviews, identifies and classifies the Company's stakeholders on a national and local level. The areas of ENDESA entrusted with the performance of correct dialogue with the Company's stakeholders update yearly the classification and cataloguing of the same in accordance with the Company's current situation.

Besides, each stakeholder group is segmented in order to identify each of the sub-groups forming it, and thus to optimise the identification of paths of dialogue and consultation so as to assess the perception of Company conduct of these groups.

The stakeholders identified by this process are detailed below:

| Level I  | Level II                                      | Level III                              |
|--|---|--|
| <b>Financial institutions and shareholders</b> |   |  |
|  | <b>Investors and shareholders</b>             |  |
|  |   | Institutional investors                |
|  |   | Private investors                      |
|  | <b>Lenders</b>                                |  |
|  |   | Holders of institutional bonds         |
|  |   | Holders of domestic bonds              |
|  |   | Banks                                  |
|  |   | Public financial institutions          |
|  |   | Other financial institutions           |
|  | <b>Rating agencies and financial analysts</b> |  |
|  |   | Rating agencies and financial analysts |

| Level I                           | Level II  | Level III                                    |
|-----------------------------------|---|--|
| <b>Public Administration</b>      |   |  |
|                                   | <b>Political parties</b>                                |  |
|                                   |   | National political parties                   |
|                                   |   | Regional and local political parties         |
|                                   | <b>Government Institutions</b>                          |  |
|                                   |   | Local Government                             |
|                                   |   | Regional Government                          |
|                                   |   | National Government                          |
|                                   |   | Community government institutions            |
|                                   | <b>Authorities and supervisory bodies</b>               |  |
|                                   |   | Local and regional supervisory bodies        |
|                                   |   | National authorities and regulators          |
|                                   |   | International authorities and regulators     |
|                                   | <b>Law enforcement agencies</b>                         |  |
|                                   |   | Local law enforcement agencies               |
|                                   |   | National law enforcement agencies            |
|                                   |   | International law enforcement agencies       |
| <b>Business community</b>         |   |  |
|                                   | <b>Companies and competitors</b>                        |  |
|                                   |   | Local companies                              |
|                                   |   | National companies                           |
|                                   |   | Multi-national companies                     |
|                                   |   | Public enterprises                           |
|                                   | <b>Trade unions</b>                                     |  |
|                                   |   | Local trade unions                           |
|                                   |   | National trade unions                        |
|                                   |   | International trade unions                   |
|                                   | <b>Business associations</b>                            |  |
|                                   |   | Local business confederations                |
|                                   |   | National business confederations             |
|                                   |   | Chambers of Commerce                         |
|                                   |   | Other business associations                  |
| <b>Civil society and citizens</b> |   |  |
|                                   | <b>Citizens and public opinion</b>                      |  |
|                                   |   | Minorities                                   |
|                                   |   | Local citizens                               |
|                                   |   | National citizens                            |
|                                   |   | International public opinion                 |
|                                   | <b>Opinion leaders</b>                                  |  |
|                                   |   | Local opinion leaders                        |
|                                   |   | National opinion leaders                     |
|                                   |   | International opinion leaders                |
|                                   | <b>Environmental non-governmental organisations</b>     |  |
|                                   |   | Local non-governmental organisations         |
|                                   |   | National non-governmental organisations      |
|                                   |   | International non-governmental organisations |
|                                   | <b>Foundations and Associations for social purposes</b> |  |
|                                   |   | Local associations                           |
|                                   |   | National associations                        |
|                                   |   | International associations                   |
|                                   | <b>Religious institutions</b>                           |  |
|                                   |   | Local religious institutions                 |
|                                   |   | National religious institutions              |
|                                   |   | International religious institutions         |



| Level I                          | Level II  | Level III                                |
|----------------------------------|---|--|
|                                  | <b>Research centres and academic institutions</b> |  |
|                                  |   | Primary and secondary education centres  |
|                                  |   | National research centres                |
|                                  |   | International research centres           |
|                                  | <b>CSR furtherance organisations</b>              |  |
|                                  |   | National and international organisations |
|                                  |   | Sector organisations                     |
| <b>Suppliers and contractors</b> |   |  |
|                                  | <b>Potential suppliers and contractors</b>        |  |
|                                  |   | Potential suppliers and contractors      |
|                                  | <b>Contractors</b>                                |  |
|                                  |   | Local contractors                        |
|                                  |   | National contractors                     |
|                                  |   | International contractors                |
|                                  | <b>Suppliers of goods and services</b>            |  |
|                                  |   | Local suppliers                          |
|                                  |   | National suppliers                       |
|                                  |   | International suppliers                  |
|                                  | <b>Fuel suppliers</b>                             |  |
|                                  |   | Local suppliers                          |
|                                  |   | National suppliers                       |
|                                  |   | International suppliers                  |
| <b>Our people</b>                |   |  |
|                                  | <b>Employees</b>                                  |  |
|                                  |   | Top management                           |
|                                  |   | Middle management and Leads              |
|                                  |   | Experts and technicians                  |
|                                  |   | Administrative staff                     |
|                                  |   | Grantees and temporary staff             |
|                                  | <b>Trade unions</b>                               |  |
|                                  |   | Union delegates                          |
|                                  |   | Works committees                         |
| <b>Customers</b>                 |   |  |
|                                  | <b>Potential customers</b>                        |  |
|                                  |   | General public                           |
|                                  |   | Companies                                |
|                                  | <b>Electricity market and end-users</b>           |  |
|                                  |   | General public                           |
|                                  |   | Companies                                |
|                                  | <b>Gas market and end-users</b>                   |  |
|                                  |   | General public                           |
|                                  |   | Companies                                |
|                                  | <b>Consumer associations</b>                      |  |
|                                  |   | Consumer associations                    |
| <b>Media</b>                     |   |  |
|                                  | <b>Social networks and virtual communities</b>    |  |
|                                  |   | Local social networks                    |
|                                  |   | Regional social networks                 |
|                                  |   | National social networks                 |
|                                  |   | International social networks            |
|                                  | <b>Traditional media</b>                          |  |
|                                  |   | Local media                              |
|                                  |   | Regional media                           |
|                                  |   | National media                           |
|                                  |   | International media                      |

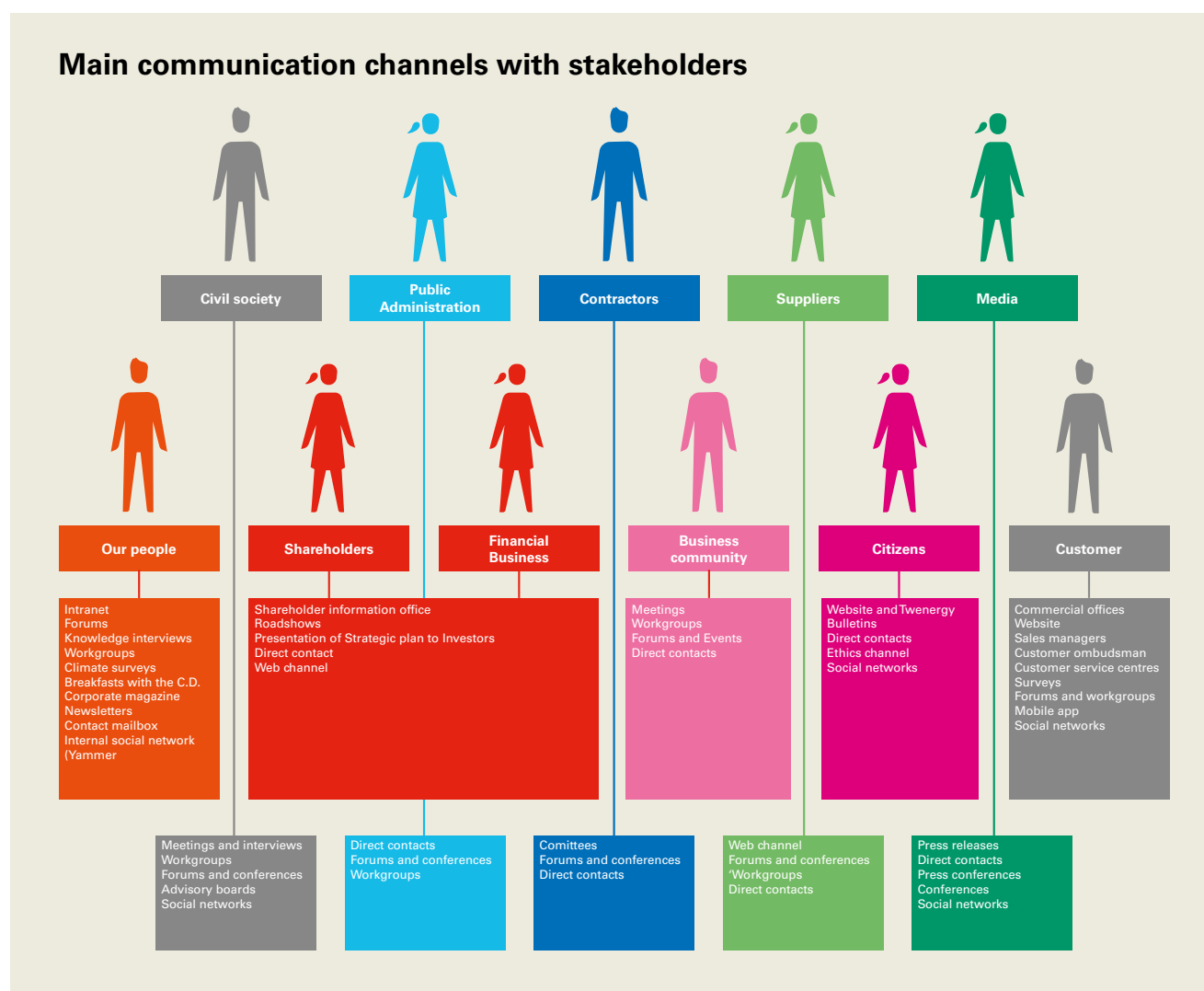


## 2.2. ENDESA's communication channels with its stakeholders

G4-26

ENDESA's operative excellence is based on a continuous interaction with its stakeholders, with whom it maintains a constant relationship in the course of its activities. By means of the communication channels and procedures forming its management systems, the Company gathers solid knowledge of its stakeholders' requirements and expectations, and the evolution of the same.

During 2016, ENDESA entered into continued dialogue with its stakeholders via various communication channels. See *the section 3.1 Materiality study* in this chapter for further information.



## 2.2.1. ENDESA and social networks

During 2016, ENDESA opened its blog to external contributors. The Digital Public Relations activities have been grouped in a specific programme, and Community Management reaches all the corporate areas reflected in the social networks. This presence includes Twitter, Facebook, LinkedIn and YouTube. The Marketing Directorate-General has also launched personalised attention to customers via the WhatsApp application.

To this end, the stakeholders were prioritised according to two variables:

- > **Dependence:** groups or individuals directly or indirectly dependent on the organisation's activities, products or services and their associated functions.
- > **Influence:** groups or individuals who may have an influence on the organisation, or strategic stakeholder groups for the decision-making process.

The combination of the two factors mentioned gives rise to the relevance of the stakeholder group, orienting and prioritising its involvement in the identification of material issues.

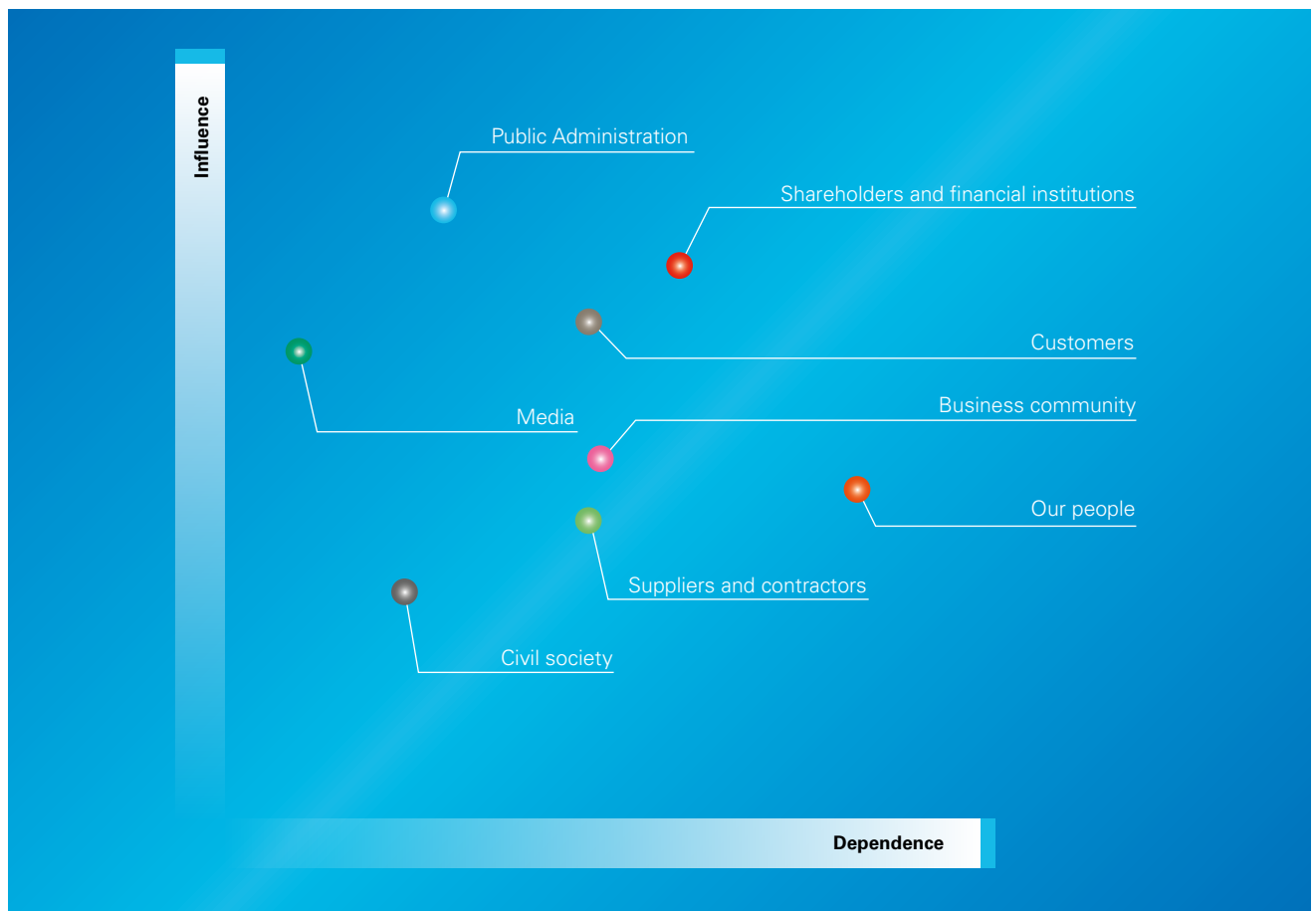
## 2.3. Prioritisation of stakeholders

G4-25

With the active participation of different business and corporate units at ENDESA, in 2016 the stakeholders were prioritised according to their relevance to the Company.

This methodology is also applied in all the territories where the Company operates, thus increasing its level of detail, and therefore its applicability in the design of effective solutions.

The analysis revealed that the Public Authorities, the shareholders, the financial institutions and the customers are the stakeholders with the greatest capacity of influence on the Company, while it is the employees who present the greatest degree of dependence.



## 3. Material aspects

### 3.1. Materiality study

G4-18 G4-19 G4-20 G4-21 G4-22 G4-23

The Enel Group has carried out an in-depth study to identify sustainability issues, which, according to their degree of maturity or significance, might be decisive for business. This study was carried out according to an in-depth analysis of the information received from different sources, both internal and external.

Once a set of sustainability issues had been identified in terms of the Enel Group, at the close of 2015 ENDESA carried out a specific materiality study to classify these issues according to the level of priority they have on business strategy and their relevance for stakeholder groups.

The results of this study were the basis for the preparation of ENDESA's 2016-2019 Sustainability Plan and in turn have determined the content of the present sustainability report, which accounts for the degree of progress in the attainment of the plan.

The breakdown of the different actions carried out which integrate the materiality study performed is as follows:

- > **Surveys on sustainability conducted on various internal and external stakeholder groups.** Analysis of the importance of sustainability attributes for the stakeholders and ENDESA's positioning in this respect. Also includes recommendations for improvement by stakeholders.
- > **Internal interviews with General Managers that belong to ENDESA's Executive Committee and the Sustainability Committees in each of the territories in which ENDESA operates in Spain and Portugal.** Gen-

eral business managers, regional managers and those of transversal departments were interviewed with the aim of identifying relevant and material issues, the future perspectives for the Company pursuant to the evolution of the energy model, and ENDESA's priorities in its contribution to social and financial development.

- > **Material aspects detected by ENDESA's management areas.** Analysis and consolidation of the information received through the tools and stakeholder dialogue channels used by the management areas (workplace opinion poll, safety survey, corporate image barometer, customer survey, etc.).
- > **Analysis of the requirements of socially responsible investment indices.** An analysis was performed on the issues assessed in the main sustainability indices, such as the Dow Jones Sustainability Index, Euronext Vigeo Index and OEKOM, identifying the significance and changes in the relevance of each issue and assessing ENDESA's performance in comparison with its competitors and in absolute terms.

### 3.2. Materiality study results

G4-19 G4-2

#### 3.2.1. Priority issues in 2016

The combination of both variables analysed in the materiality study performed, that is, the significance in business strategy and the priority for stakeholders, revealed that the issues with greatest priority were:

# Economic and ethical issues

## > **Economic growth and financial strength.**

The creation of economic value is essential to ensure the continued existence over time of the Company, and therefore its sustainability. To this end, the financial performance of the Company has been identified as the most important issue, according to the internal and external surveys executed. It has likewise been stated that ENDESA should commit itself to the search for a sustainable economic growth, seeking the integration of financial and non-financial risks into business management and exploiting the business opportunities derived from economic, environmental and social development in the areas where the Company operates.

## > **Ethical conduct.**

Over the last years, the ethical conduct practices of listed companies have become the object of increased scrutiny by markets and regulators. ENDESA's financial performance is determined, among other factors, by the strict compliance with ethical standards and principles, both internally and in its external relationships. In this way, ethical conduct enables ENDESA to generate confidence among its shareholders and investors, and has become a brand differentiation factor, which builds customer loyalty, factors reflected in the economic results and which contribute to the strengthening of the position of leadership and reference displayed by ENDESA in the market. ENDESA has implemented a set of standards, plans and control mechanisms by which it obliges all its employees to behave with integrity in their dealings with the stakeholders –shareholders, employees, suppliers, customers and authorities- with whom they deal.

## > **Energy-efficient and value-added products and services.**

Currently, a highly significant transformation is taking place worldwide in the energy sector. This transformation is caused, among other reasons, by the appearance of a new, more active customer profile, which requires a greater decision-making capacity in the management of his energy consumption. Technological breakthroughs, particularly in the field of telecommunications and digitalisation, are accelerating this transformation. This new context enables the appearance of new business oppor-

tunities based on the development of energy solutions that further sustainability and enable the diversification of the products and services that ENDESA tenders to its customers. ENDESA, as the leading Company in the Spanish energy sector, must take up an active stance in this new context. To this end, it is committed to innovation and the development of new products and services as drivers for its adaptation to the requirements of its surroundings, be they customer-related or regulatory, and to further the use of efficient technologies to favour energy savings.

To this end, via its 2016-2019 Sustainability Plan, ENDESA has included specific activities to further the development of this activity and its growth.

# Environmental issues

## > **The struggle against climate change.**

Climate change currently represents the main environmental requirement for companies within the energy sector. This has led to the development of public policies and regulations that put more pressure on energy companies. Furthermore, the more advanced institutional investors are concerned with the viewpoints, approaches and results of companies regarding climate change. However, it has also enabled new business opportunities to be created, directed toward the furtherance of consumer-oriented solutions for the reduction of emissions; for example, those related to energy efficiency, renewable energies, or the change of fuel to Natural Gas for Vehicles, items which ENDESA promotes in its 2016-2019 Sustainability Plan.

## > **Advanced environmental management.**

Caring for the environment and minimising environmental impacts has become one of the main determining factors of public opinion with regard to companies of our sector. Likewise, environmental regulations have increased considerably, which has led to an increase in the level of standards required of companies in their endeavour to minimise their ecological footprint. In short, incorrect environmental management could lead to increased operating costs and serious reputational risks that could result in loss of public confidence, with the subsequent negative impact on the Company's finan-

cial performance. For this reason ENDESA, via its 2016-2019 Sustainability Plan, has developed actions oriented toward the reduction of emissions and residue derived from its activity, a reduction in water consumption and the preservation of biodiversity, as well as specific activities to reduce the carbon footprint derived from the use of its vehicle fleets and buildings.

## Social and ethical issues

### > Occupational health and safety.

Optimal occupational health and safety management has a direct effect on the economic performance of ENDESA and on the achievement of its strategic objectives. A commitment to the occupational health and safety of employees and contractors undoubtedly results in increased productivity and also reduces absenteeism and related compensation. It also contributes considerably towards promoting loyalty and commitment among employees towards ENDESA and the work they carry out. ENDESA promotes initiatives that contribute toward reducing accidents and promoting a culture of Occupational Health and Safety among its staff and collaborators. As a result, this aspect forms a fundamental pillar of sustainability that contributes toward operational excellence, thus enabling a very high level of quality to be achieved.

### > Responsible relationships with communities.

Currently, a strengthening of civil society is under way, due in part to the development of communication technologies enabling greater interpersonal connectivity and facilitating access to information. This has contributed to the increased desire among communities to participate actively in those matters, which may affect them to a greater, or lesser degree, whether positively or negatively. Social opposition to certain projects may entail costs associated with the delayed execution of the projects or even the stoppage of the same, and in all cases, a loss of confidence in the Company. Therefore, in order to ensure the sustainability of the business projects executed, ENDESA must integrate the stakeholders' expectations at a local level right from the start, promoting dialogue and a responsible relationship with local communities, applying at all times a viewpoint of shared value creation, which will create value for both the Company and society.

Further information on how ENDESA manages this issue may be found in the chapter on *Responsible Relationships with Communities* in the present report.

Appendix III shows a list of the main indicators included in the G4 Guidelines for the preparation of Global Reporting Initiative (GRI) sustainability reports, showing ENDESA's performance with regard to each of the material aspects described. Likewise, the chapter on "Our Performance" includes the main indicators used to measure ENDESA's response to these priority issues.

## 3.2.2. Priority issues for each stakeholder group

G4-27

The list below shows, for each material issue identified, which stakeholder groups ascribe the highest level of priority to each.

| Materiality issue   | Stakeholder group  |
|---|--|
| <b>Economic growth and financial strength:</b> <ul style="list-style-type: none"> <li>— Creation of value for shareholders and investors.</li> <li>— Reduction of debt</li> </ul>   | Financial institutions and shareholders<br>Business community<br>Media<br>Media              |
| <b>Energy-efficient value-added products and services:</b> <ul style="list-style-type: none"> <li>— Management of demand</li> <li>— Capacity of response to customers' requirements</li> </ul>  | Media<br>Business community<br>Institutions  |
| <b>Ethical conduct:</b> <ul style="list-style-type: none"> <li>— Transparency in relationships with institutions</li> <li>— Transparency in communications</li> <li>— Fight against corruption</li> <li>— Fair competition practices</li> </ul> | Civil society and local communities<br>Institutions<br>Media                                 |
| <b>Climate change:</b> <ul style="list-style-type: none"> <li>— Mitigation of CO<sub>2</sub> emissions</li> <li>— CO<sub>2</sub> emission compensation and management</li> </ul>  | Civil society and local communities<br>Customers<br>Financial institutions and shareholders  |
| <b>Advanced environmental management:</b> <ul style="list-style-type: none"> <li>— Efficient use of power</li> <li>— Reduction of pollutants</li> <li>— Waste management</li> <li>— Environmental management systems</li> </ul>                 | Business community<br>Customers<br>Civil society and local communities                       |
| <b>Occupational Health and Safety:</b> <ul style="list-style-type: none"> <li>— Safety of employees</li> <li>— Safety of suppliers and contractors</li> <li>— Health of employees</li> </ul>  | Employees<br>Customers<br>Civil society and local communities                                |
| <b>Responsible relationships with communities</b> <ul style="list-style-type: none"> <li>— Social-economic development of communities</li> <li>— Access to electricity</li> <li>— Support for local communities</li> </ul>                      | Media<br>Civil society and local communities<br>Employees<br>Definition of future priorities |

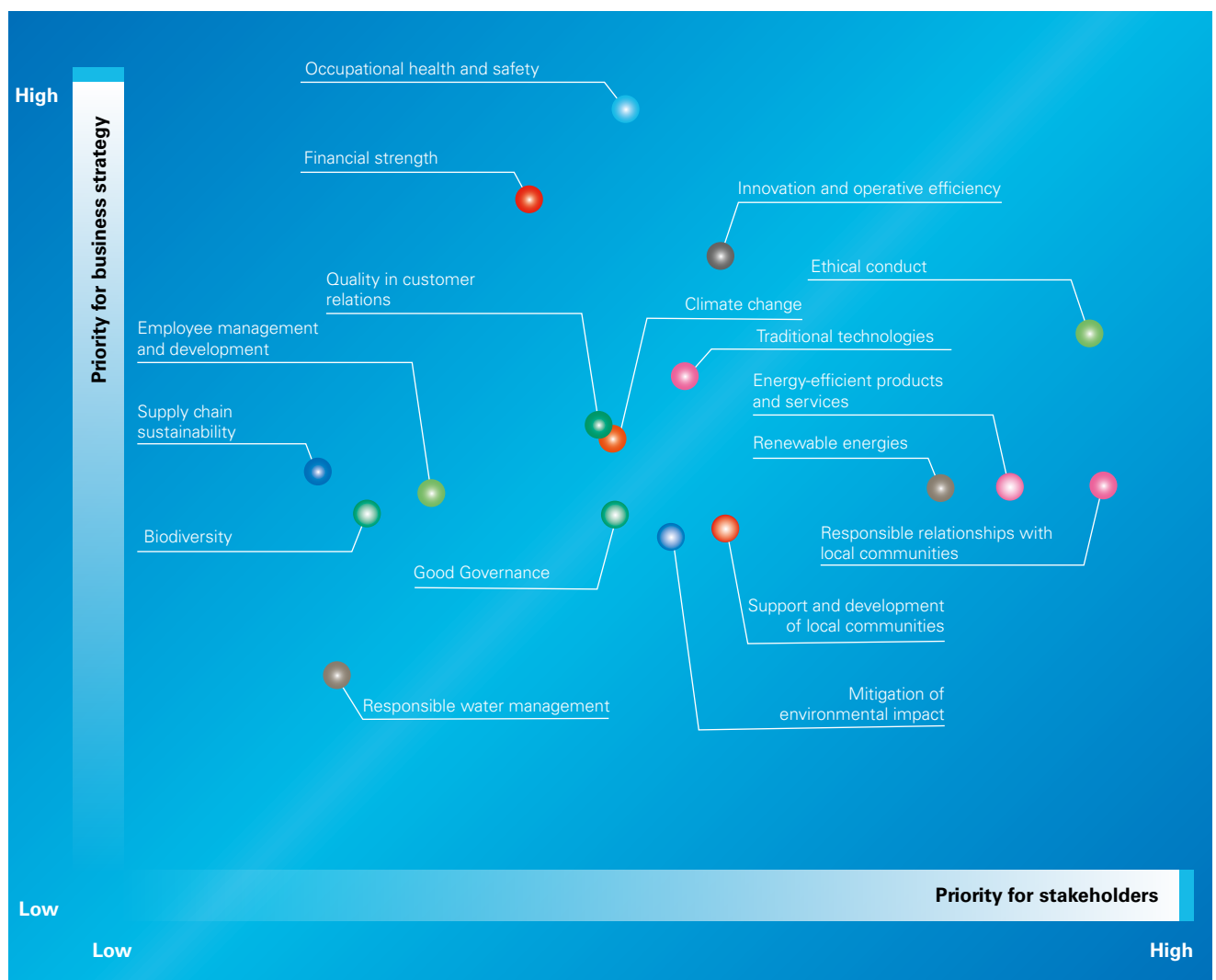
### 3.3. Definition of future priorities

At the close of 2016, ENDESA performed a new materiality study in order to update the economic, environmental, social and ethical issues, which will be high-priority for the stakeholders during 2017. The results of this study have been used to define ENDESA's new 2017-2019 Sustainability Plan and also to contribute to establishing the Company's industrial priorities.

As a novelty in comparison with 2015, the level of stakeholders' satisfaction with ENDESA's performance regarding the issues was also analysed, as well as the importance granted by them to each issue.

The main activities carried out during the materiality study are:

- > Sustainability-related telephone surveys with customers.
- > Personal interviews with experts in sustainability and with specialized media.
- > Analysis of the criteria assessed by the main socially responsible investment indices, such as Dow Jones Sustainability Index, Euronext Vigeo, OEKO Mand Georseon.
- > Analysis of employee diversity surveys.
- > Analysis of the customer satisfaction survey.
- > Assessment of issues by the Company departments responsible for the management of each stakeholder group.
- > Analysis of the Sustainability and Business plans to identify leverages and opportunities for improvement.
- > Analysis and integration of the guidelines identified by Enel and applicable to all the companies of the Group.



This analysis has generated abundant information on the materiality and relevance of the various items identified, and has enabled their classification according to their relevance to stakeholders and to the business.

By means of this study, ENDESA has identified an array of sustainability issues, which will mark its sustainability

strategy for the coming year and which will be included in ENDESA's new 2017-2019 Sustainability Plan.

A breakdown of the structure and approach of this new Sustainability Plan may be found in the chapter entitled *Sustainability Plan*.





## 4. Coverage of the report

G4-13 G4-20 G4-21 G4-22 G4-23

ENDESA maintains a constantly-updated corporate register featuring the entirety of its interests, of whatever nature, direct or indirect, and also of any entity over which it is enabled to exercise control.

The perimeter of the information presented in the present report embraces both ENDESA, S.A. and its shared companies in the Iberian Peninsula (Spain and Portugal).

As a general rule, regarding environmental data, 100% of the facilities where ENDESA has a majority share, and therefore responsibility for their operation (control) are included. Besides, data are included which relate to facilities where a majority share is not owned, but its share percentage is reported; such is the case of the nuclear plants and the thermal plant in Pego (Portugal).

On 28<sup>th</sup> July ENDESA Generation S.A., a company owned in its entirety by ENDESA, S.A., purchased 60% of the share capital of Enel Green Power España S.L., a company of which it already owned 40% of the capital, consolidating the same as from that date and now owning 100%.

With regard to staff data, both those companies managed by ENDESA and those shared in Spain and Portugal are in-

cluded. Also included are the employees of the shared companies in France, Holland and Germany.

With regard to safety, data on the employees of companies where ENDESA has a majority share, and therefore responsibility for their operation (control) are included.

Information concerning social programmes corresponds to the activities performed by ENDESA, its foundations and its subsidiaries in Spain and Portugal.

With regard to the material aspects identified, it should be noted that all of these are significant, both within and outside the organisation, for all the entities forming ENDESA.

Throughout this report, the specific cases where the scope of the information presented differs from the criteria described above are marked.

The present document has been drawn up in accordance with the Global Reporting Initiative (GRI) G4 Guidelines. The Report is also complemented with the sector supplement specific to the electricity sector (GRI Electric Utilities Sector Supplement) and with the principles established by the AA1000 APS standard (2008).





3\_Sustainability Plan

# 1. Compliance with ENDESA's 2016-2019 Sustainability Plan

The 2016-2019 ENDESA Sustainability Plan, oriented toward the promotion of short- and long-term sustainable economic growth via the furtherance of a sustainable, responsible value creation chain, established two priority areas of action: the promotion of a more sustainable electricity generation model and a commitment to sustainable urban development.






Therefore, in order to ensure a high level of excellence in responsible business management, five strategic pillars

were identified which are transversal to all Company activities: integrity, human capital, environment, supply chain and social commitment.

















By means of over 80 quantitative management goals, ENDESA has responded to each of the strategic pillars and priorities defined in the 2016-2019 Sustainability Plan, achieving a global fulfilment of over 97%.



## Compliance with 2016-2019 Sustainability Plan

| Field   | Objectives   | Compliance | Chapter in Report                               | SDG   |
|---|--|------------|---|---|
| <br>Sustainable generation sustainable | <b>Decarbonisation of energy mix:</b> reduction in absolute and specific CO <sub>2</sub> emissions.  | 100%       | Decarbonisation of energy mix                   |    |
| <br>Sustainable cities                 | <b>Solutions in energy efficiency and renewables:</b> sale of Value Added Product and Services, Efficient products tendered in the online store, Visits to Twenergy, NGV stations.<br><b>Commercial quality:</b> customer satisfaction.<br><b>Customer digitalisation:</b> increase in digitalised customers, e-billing and e-care management.<br><b>Quality of supply:</b> reduction in energy losses, improved continuity of supply, recovery of lost energy, installation of remote meters and remote controls. | 99.9%      | Customer-oriented Innovation and digitalisation |   |

## Responsible business management

| Field  | Objectives   | Compliance | Chapter in Report                          | SDG   |
|--|--|------------|--|---|
| <br>Corporate integrity                         | <b>Good governance:</b> action plan on new code of good governance, gender diversity in the Board of Directors.<br><b>Ethical conduct:</b> verification of controls of legal risk prevention model, implementation of ethical reference frameworks for the prevention of crime in subsidiaries and offices abroad, training in ethical conduct, verifiable claims analysed within 90 days.   | 100%       | Getting to know ENDESA                     |    |
| <br>Responsible relationships with communities | <b>Access to energy:</b> minimisation of economic barriers, training and instruction in the field of energy, energy efficiency and the responsible use of energy.<br><b>Social-economic development:</b> employment and economic activity, transfer of knowledge and skills, support for Company activities, social activities concerning ENDESA's assets.<br><b>Customer digitalisation:</b> training activities and academic training in general.  | 100%       | Responsible relationships with communities |     |
| <br>human capital                             | <b>Assessment and Training:</b> evaluation systems, face-to-face and online training, digital transformation, training for energy challenges.<br><b>Diversity:</b> women in positions of responsibility, hiring of women.<br><b>Reconciliation:</b> training activities and academic training in general.<br><b>Occupational health and safety:</b> accident rates, safety inspections, medical check-ups, awareness.  | 92%        | Human capital                              |     |
| <br>environment                               | <b>Reduction of the environmental footprint in business:</b> air quality (SO <sub>2</sub> , NO <sub>x</sub> , particulates, mercury), water consumption, recycling and re-use of combustion residues (ash, gypsum), certification of environmental management systems in generation and distribution activities.<br><b>Fleet management:</b> reduction of the carbon footprint by electrification of fleets, reduction of the combustion-powered fleet, installation of Black Box devices in the fleet and implementation of an e-car sharing service.<br><b>Building management:</b> reduction of the carbon footprint, reduction of power consumption, waste, water and space.<br><b>Biodiversity:</b> projects for the preservation of biodiversity, assessment of the impact of biodiversity on business activities and assets; furtherance, dissemination and awareness of biodiversity; regeneration of natural landscapes in local communities. | 97%        | Environmental sustainability               |      |
| <br>Supply chain                              | <b>Assessment of suppliers:</b> graded according to social, ethical, environmental and safety aspects.<br><b>Assessment of suppliers' performance.</b><br><b>Supervision of contractors:</b> audits on social, environmental and ethical aspects.  | 96%        | Supply chain                               |    |

## 2. ENDESA's new 2017-2019 Sustainability Plan

### G4-2

In order to achieve the integration of sustainability into business management and decision-making processes, there must be maximum alignment between business strategy and sustainability, in such a way that both are oriented toward the attainment of the same objective and use feedback to achieve this, thus generating short- and long-term economic value for the Company.

On 23<sup>rd</sup> November 2016, ENDESA disclosed the update of its Strategic Plan for the 2017-2019 period, subsequent to the update of the Enel Group's Strategic Plan for the same period, disclosed on 22<sup>nd</sup> November during its *Capital Markets Day*.

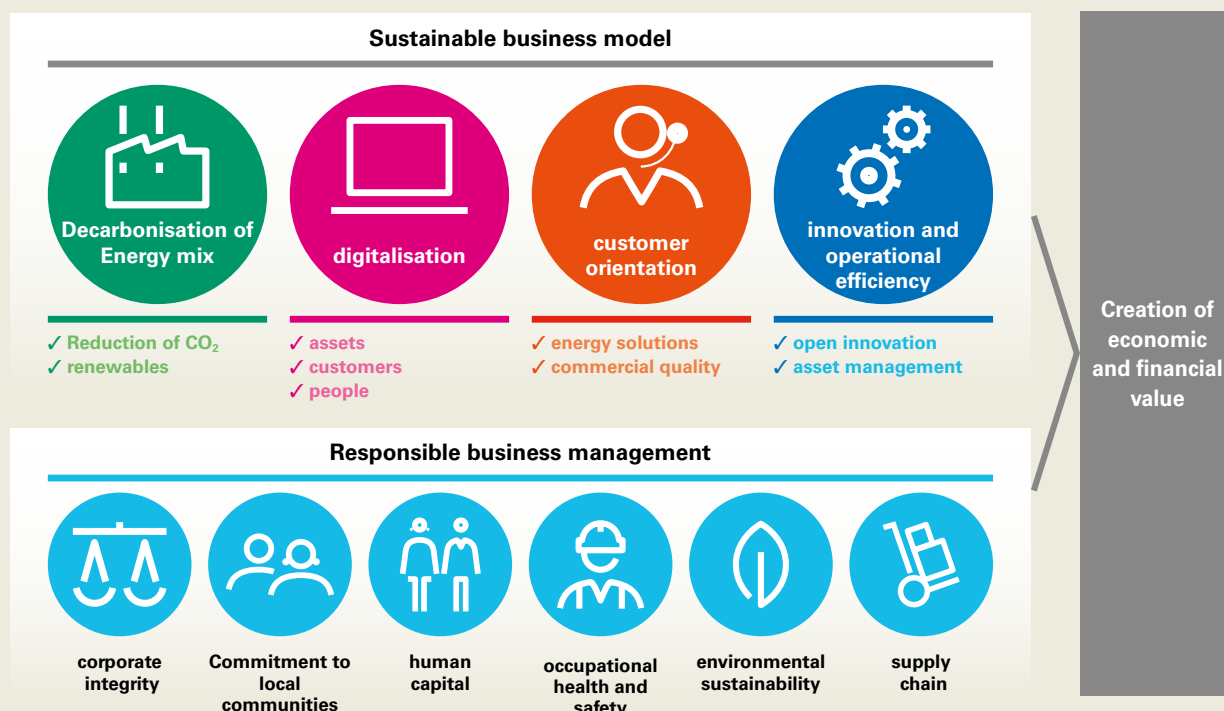
At the same time, and in order to achieve the maximum alignment between the sustainability and business strategies, ENDESA carried out a process of analysis, consultation and strategic reflection for the design of its new 2017-2019 Sustainability Plan, using as a basis the achievements and opportunities for improvement identified in the previous Plan. This process has enabled the identification of the pri-

orities for action for the next three years. The breakdown of this analysis, and the main conclusions, may be found in the chapter "Defining Priorities".

The new Sustainability Plan, as was the case with the previous Plans, is in line with the guidelines established by the Enel Group for each of its subsidiaries, and will contribute actively to the objectives set throughout the Group, directed toward moving forward in the decarbonisation of the energy sector, digitalisation, customer orientation, innovation and operational efficiency, commitment to local communities and the development of human capital.

As was the case with the previous plan, the new 2017-2019 Sustainability Plan also defines ENDESA's contribution to the United Nations Sustainable Development Goals. This framework represents the basis of the sustainability plan and acts as a referent to establish a sustainability strategy that generates long-term value both for the Company and for the society, it serves.

### New 2017-2019 Sustainability Plan





## The 2017-2019 Sustainability Plan defines ENDESA's contribution to the United Nations Sustainable Development Agenda for the next 3 years

The new 2017-2019 Sustainability Plan seeks to further ENDESA's sustainable economic growth, setting the following strategic priorities and defining over 100 quantitative management objectives:

### Sustainable business model

- > **Decarbonisation of the energy mix.** The new Sustainability Plan establishes the roadmap to make ENDESA a CO<sub>2</sub> emission-free company in 2050, a commitment undertaken by the Enel Group. To this end, emission reduction goals have been set, as has an increase in investment in the development of renewable energy.
- > **Digitalisation.** The Sustainability Plan identifies digital transformation as a fundamental driver in the achievement of a sustainable energy model. To this end, action will be taken on three main fronts: the digitalisation of the Company's assets (generation facilities and electricity distribution grid), the development of a digital culture within the Company and the digitalisation of our customers and of the way ENDESA relates with them.
- > **Customer orientation.** New demands from customers require the development of new business solutions beyond the supply of electricity and gas. To achieve this, the Sustainability Plan includes investment and growth objectives in the development of new products and services, which promote a more sustainable energy model. Furthermore, the Sustainability Plan pays special attention to maintaining a high level of excellence in its relationship with customers and in the quality of the service provided.

- > **Innovation and operational efficiency.** From a viewpoint of open innovation, the Sustainability Plan includes lines of action oriented toward promoting the attraction of external talent and exploring new cooperation pathways for the development of new business solutions to further sustainability. The plan also includes goals directed toward the promotion of efficiency throughout the entire business value creation chain.

### Responsible business management

- > **Integrity.** The Sustainability Plan includes the necessary objectives to maintain a high level of excellence in compliance with its commitments and ethical responsibilities, the implementation of good corporate governance practices and the furtherance of transparency in its relationship and communications with all its stakeholders.
- > **Commitment to local communities.** From a viewpoint of shared value creation, ENDESA promotes the integration of sustainability throughout the Company's value chain, and seeks to combine its interests with the priorities and requirements of stakeholders at a local level. The Sustainability Plan therefore includes objectives oriented toward promoting access to energy, social-economic development and education as mainstays of its commitment to local communities.
- > **Human capital.** For ENDESA, its people constitute the Company's main asset. For this reason, the new Sustainability Plan includes objectives that will continue to promote the level of satisfaction of its employees, gender diversity -particularly in positions of responsibility- the development of talent and reconciliation between professional and personal life.
- > **Occupational health and safety.** ENDESA understands safety to be "zero accidents" and health to be complete personal well-being. To this end, the Sustainability Plan sets the necessary goals oriented toward reducing accident rates among employees and contractors, and promoting healthy habits.
- > **Environmental sustainability.** In order to reduce its environmental footprint as much as possible, the new













Sustainability Plan includes reduction goals for the main environmental indicators, and also to promote the preservation of biodiversity via the search for excellence in environmental management.

- > **Sustainable supply chain.** The new Sustainability Plan establishes lines of action directed toward increasing the






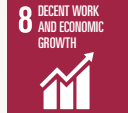




monitoring and supervision systems for the supply chain in accordance with environmental, safety and human rights criteria.

The main objectives defined in the new Sustainability Plan for the 2017-2019 period are detailed below:

## Sustainable business model









| Field  | Objectives   | Basis: 2016  | 2017                    | 2019        |  |
|--|--|--|-------------------------|-------------|--|
| <br>decarbonisation of energy mix       | Reduction of absolute CO <sub>2</sub> emissions vs. 2005.                    | –  | 34%                     | 40%         |   |
|  | Reduction of specific CO <sub>2</sub> emissions vs. 2005.                    | –  | 16%                     | 23%         |  |
|  | CO <sub>2</sub> –free production(%)  | 49%  | 50%                     | 52%         |  |
|  | New renewable energy installed power.  | n/a  | ~ 300 new MW            |             |  |
|  | Investment in development of renewable energies.                             | n/a  | + 502 MM € in 2017-2019 |             |  |
| <br>digitalisation                     | Investment indigitalisation(assets, people and customers).                   | ~ 830 MM € in 2016-2019  |                         |             | <br>  |
|  | Besós Thermal Power Plant digitalisation project.                            | 0  | 1                       | 1           |  |
|  | Big Data project in generation asset management.                             | 0  | 1                       | 1           |  |
|  | Low Voltage: Installation of remote meters (cumulative).                     | 9.2 MM   | 11.2 MM                 | 12.4 MM     |  |
|  | Medium Voltage: installation of remote controls(% completion of plan).       | 62%  | 75%                     | 93%         |  |
|  | High Voltage: updating of telemetry (% completion of plan).                  | 0%   | 19%                     | 71%         |  |
|  | Growth of digital customers.   | 1.6 MM   | + 3.7 MM in 2019        |             |  |
|  | Increase in customers with e-billing.  | 1.9 MM   | 3.6 MM in 2019          |             |  |
|  | Sales via digital channels (vs. other types of channel).                     | 8%   | 15% in 2019             |             |  |
|  | Increase in visits to the Twenergy portal.                                   | 4.5 MM   | 5.7 MM visits in 2019   |             |  |
|  | Development of digital transformation programmes in employees.               | ~ 2.000 employees 2017-2019  |                         |             |  |
|  | Website applications protected with cybersecurity.                           | 25%  | 75%                     | 100%        |  |
|  | Setting-up and accreditation of the CERT (Computer Emergency Response Team). | 0  | Setting-up              | maintenance |  |
|  | Awareness activities on cybersecurity for employees.                         | 13   | + 15                    | + 15        |  |
| <br>customer orientation              | Increased investment in development of energy solutions.                     | + 200 MM € in 2017-2019  |                         |             | <br> |
|  | Profit obtained from sales of energy solutions.                              | 200 MM € in 2019 (x 2.3 vs. 2016)                                    |                         |             |  |
|  | Global customer satisfaction with the Company.                               | 1 <sup>st</sup> place in sector 2017-2019<br>Score> 7.2 in 2017-2019 |                         |             |  |
| <br>innovación y eficiencia operativa | Launching of innovation challenges on the Energy Challenges platform.        | 1  | 1                       | 1           |   |
|  | New start-ups selected each year.  | 2  | 2                       | 2           |  |
|  | New innovation projects launched each year.                                  | 2  | 2                       | 2           |  |
|  | Internal innovation events each year.  | 2  | 2                       | 2           |  |
|  | Efficiency of the renewable energy facilities (availability).                | 93.6%  | 96%                     | 96.2%       |  |
|  | Efficiency of the hydraulic power facilities (availability).                 | 98%  | 98.2%                   | 98.2%       |  |
|  | ISO 9001-certified thermal generation facilities.                            | 0%   | 100%                    | 100%        |  |
|  | ISO 9001-certified renewable generation facilities.                          | 100%   | 100%                    | 100%        |  |
|  | Electricity losses in distribution.  | 8.41%  | 7.9%                    | 7.4%        |  |
|  | Interruption time (own + programmed ITEPI) (min).                            | 58   | 57                      | 56.3        |  |
|  | Recovery of energy.  | 2001 GWh   | 3776 GWh in 2017-2019   |             |  |

## Responsible business management

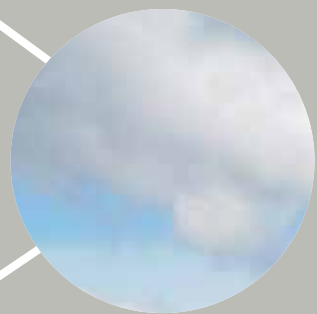
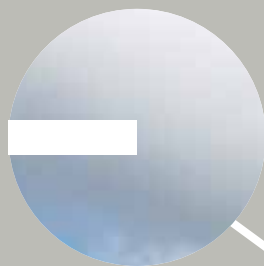
| Field   | Objectives   | Baseline: 2016                 | 2017        | 2019    |   |
|---|--|--------------------------------|-------------|---------|---|
| <br>corporate integrity              | Development of internal regulations on market abuse.                   | Development and implementation |             |         | <br>16 PEACE, JUSTICE AND STRONG INSTITUTIONS  |
|   | Transparency in the diversity of Administrative bodies.                | Development and implementation |             |         |   |
|   | Increase in number of women in Board of Directors.                     | 9%                             | 30% in 2020 |         |   |
|   | Annual verification of Criminal Risk Prevention Programme controls.    | 100%                           | 100%        | 100%    |   |
|   | Ethical conduct training for employees (% employees).                  | 85%                            | 90%         | 97.5%   |   |
|   | Verifiable claims analysed within 90 days.                             | 100%                           | 100%        | 100%    |   |
|   | Score obtained in DJSI ethical conduct criteria.                       | 100                            | > 95        | > 95    |   |
| <br>commitment to local communities  | Promotion of access to energy (No. of beneficiaries).                  | 240,249                        | + 240,000   | 100%    | <br>7 AFFORDABLE AND NON-POLLUTING ENERGY  |
|   | Access to electricity for vulnerable households (N. beneficiaries).    | 60,028                         | 60,000      | 60,000  | <br>4 QUALITY EDUCATION  |
|   | Access to Education (N. beneficiaries).                                | 31,616                         | 32,000      | 32,000  | <br>8 DECENT WORK AND ECONOMIC GROWTH  |
|   | Socioeconomic Development (N. beneficiaries).                          | 41,458                         | 42,000      | 42,000  |   |
| <br>Human capital                  | Participation in performance assessment processes (% employees*).      | 99%                            | 99%         | 99%     | <br>4 QUALITY EDUCATION<br><br>5 GENDER EQUALITY |
|   | Participation in performance feedback interviews (% employees*).       | 93%                            | 93%         | 93%     |   |
|   | Gender diversity: global hiring of women.                              | 31%                            | 33%         | 37%     |   |
|   | Gender diversity: women in managerial positions.                       | 16%                            | 16.5%       | 18.5%   |   |
|   | Boosting employee training (hours/employee/year).                      | 46                             | 46          | 46      |   |
|   | Boosting online employee training (hours/employee/year).               | 12.85                          | 13          | 15      |   |
|   | Employees favoured by improvements in work areas in offices.           | 468                            | 1,000       | 1,500   |   |
|   | Services in ENDESA offices that favour reconciliation.                 | 42                             | 50          | 60      |   |
| <br>Occupational health and safety | Fatal accidents.   | 1                              | 0           | 0       | <br>3 GOOD HEALTH AND WELL-BEING   |
|   | Reduction of the combined accident rate index.                         | 1.01                           | 1.19        | 1.14    |   |
|   | Safety inspections in own and contractors' installations.              | 65,675                         | 65,675      | 65,675  |   |
|   | Installations assessed by the EcOS (Extra Checking On site) programme. | 15                             | 15          | 15      |   |
|   | Execution of medical check-ups on employees.                           | 8,903                          | + 8,900     | + 8,900 |   |
|   | Increase in awareness of OHS in employees (No. of actions).            | 230                            | 235         | 240     |   |

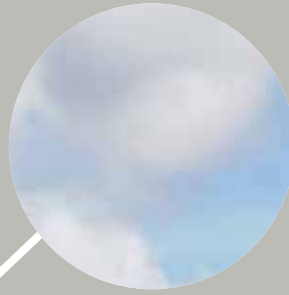
\* The perimeter considered is ENDESA's workforce, including the local employees of Enel Iberoamerica, without taking into account the employees of ANAV.

## Responsible business management (cont.)

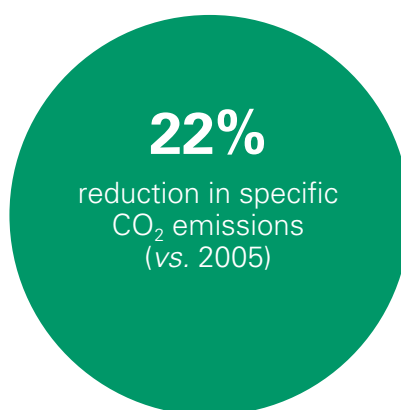
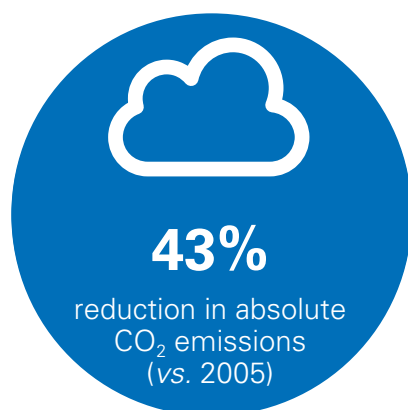
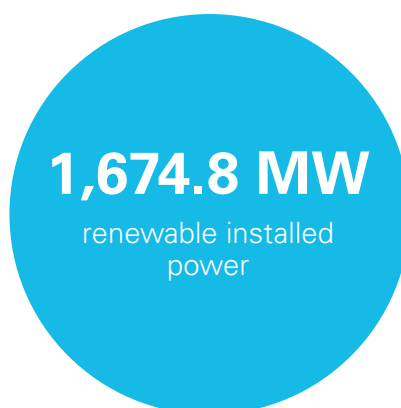
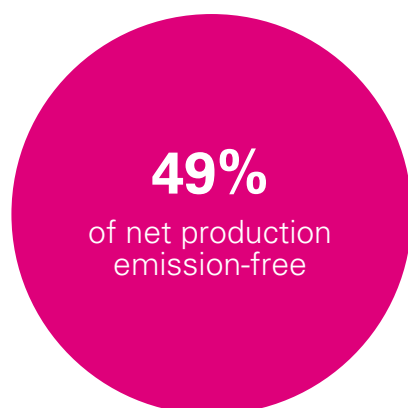
| Field   | Objectives   | Baseline: 2016                     | 2017     | 2019     |  |
|---|--|------------------------------------|----------|----------|--|
| <br>environmental sustainability | Reduction of environmental footprint (vs. estimate 2016).  | n.a.                               | 3,2%     | 23%      | <br>6 CLEAN WATER AND SANITATION<br><br>12 RESPONSIBLE CONSUMPTION AND PRODUCTION<br><br>13 CLIMATE ACTION<br><br>14 LIFE BELOW WATER<br><br>15 LIFE ON LAND |
|   | ISO 14001-certified generation facilities.   | 100%                               | 100%     | 100%     |  |
|   | ISO 14001-certified distribution activity.   | 100%                               | 100%     | 100%     |  |
|   | Specific SO <sub>2</sub> emissions (g/kWh).  | 0,88                               | 0,91     | 0,65     |  |
|   | Specific NO <sub>x</sub> emissions (g/kWh).  | 1,19                               | 1,15     | 1,01     |  |
|   | Specific particulate emissions.  | To be kept below 35 mg/kWh year    |          |          |  |
|   | Specific water consumption for generation.   | To be kept below 930 m3/MWh year   |          |          |  |
|   | Hazardous and non-hazardous waste from generation.   | To be kept below 45,000 ton/year   |          |          |  |
|   | Execution of biodiversity preservation projects.   | 26                                 | 24       | 26       |  |
|   | Dissemination, environmental awareness and natural open space regeneration activities (beneficiaries). | 78,284                             | + 78,000 | + 78,000 |  |
|   | Electrification of the fleet (electric vehicles).  | 78                                 | 110      | 250      |  |
|   | Use of hybrid vehicles.  | 424                                | 420      | 410      |  |
|   | Reduction in number of combustion-powered vehicles (No vehicles in fleet).                             | 2,062                              | 2,012    | 1,762    |  |
|   | Electric vehicles purchased by employees.  | 116                                | 250      | n/a      |  |
|   | Electric vehicle parking spaces at ENDESA's offices.   | 139                                | 200      | 350      |  |
|   | Furtherance of e-car sharing (km travelled).   | 96,872                             | 120,000  | 200,000  |  |
|   | Use of shared taxis (% journeys).  | 26%                                | 28%      | 33%      |  |
|   | Reduction of CO <sub>2</sub> emissions in fleet management (vs. 2016).                                 | 6,461 ton                          | 2%       | 10%      |  |
|   | Power consumption in buildings (GWh).  | 31.4                               | 31.2     | 30.9     |  |
|   | Water consumption in buildings (mil m <sup>3</sup> ).  | 63.8                               | 63.5     | 62.8     |  |
|   | Waste generation in buildings (containers) (tons).   | 15.8                               | 15.7     | 15.6     |  |
|   | Paper and cardboard waste generation in buildings (tons).  | 109                                | 109      | 108      |  |
| Reduction of space in the office complex.   | 20,348 m <sup>2</sup>  | 45,000 m <sup>2</sup> in 2017-2019 |          |          |  |
| Investment for the integration of space into the surroundings.  | 4.6 MM €   | 26.2 MM € in 2017-2019             |          |          |  |
| Social and environmental action on company assets.  | 10   | 27 activities in 2017-2019         |          |          |  |
| <br>supply chain               | Purchases made from qualified suppliers (% volume of purchases).                                       | 63%                                | 65%      | 75%      | <br>12 RESPONSIBLE CONSUMPTION AND PRODUCTION   |
|   | % of appraisals performed on suppliers where human rights-related aspects are verified.                | 0%                                 | 20%      | 60%      |  |
|   | %of appraisals performed on suppliers where environmental aspects are verified.                        | 15%                                | 20%      | 60%      |  |
|   | %of appraisals performed on suppliers where Occupational Safety-related aspects are verified.          | 55%                                | 65%      | 80%      |  |
|   | Assessment of suppliers' performance (% volume of purchases).  | 55%                                | 57%      | 65%      |  |
|   | Contractors audited regarding social, ethical and environmental aspects.                               | 45% of contractors in 2016-2019    |          |          |  |








4\_Decarbonisation  
of the energy mix



## Compliance with the 2016-2019 Sustainability Plan

| <br>sustainable<br>generation | Objective  | 2016<br>(31/12) | 2016<br>Objective | Noteworthy activities   |
|--|--|-----------------|-------------------|---|
|  | Reduction in absolute CO <sub>2</sub> emissions (tons CO <sub>2</sub> ).   | 29.1            | 31.75             | <ul style="list-style-type: none"> <li>– Development and management of renewable energies through Enel Green Power España (100% owned by ENDESA since its purchase in July 2016).</li> <li>– In 2016 ENDESA, for the second year running, entered its Carbon Footprint in the Carbon Footprint Register.</li> <li>– Participation in the CDP Climate Change programme.</li> </ul> |
|  | Reduction in specific CO <sub>2</sub> emissions (kg CO <sub>2</sub> /kWh). | 0.42            | 0.47              |   |



# 1. The struggle against climate change

## 1.1. ENDESA's standpoint regarding the Paris Agreement

### The cornerstones of the Paris Agreement and COP 22

The year 2016 will be remembered due to the entry into force of the Paris Agreement, marking the commencement of a new era in the struggle against climate change. The Agreement was passed less than a year after its adoption, thus showing the worldwide commitment against global warming.

The Paris Agreement is the third international document on climate change, after almost two decades without significant progress, and entails the revitalisation of international negotiations in matters of climate change.

The goal established by the Paris Agreement is that climate action should maintain global warming well below 2° C, continuing efforts to restrict the increase in temperature to 1.5° C at the end of the century, in comparison with pre-industrial levels. The achievement of the global objective is based on the establishment of emission reduction goals determined on a national level (NDCs), to be reviewed every five years. Furthermore, a stock-taking exercise has been set for 2018, and as from 2013 every five years, in order to be taken into account by the States for the reviewal of their contribution.

121 Parties have ratified the Agreement and 117 Parties have submitted their NDCs.

In 2016, the Marrakech COP22 was also held, with the principal objective of moving forward in the implementation of the Paris Agreement via the establishment of regulations and procedures for the implementation and execution of

the Agreement. As a result, 195 countries have issued the Marrakech Action Proclamation, a non-binding document requesting urgently a greater political commitment. The Proclamation is one of the achievements of the COP22 as it entails a boost to the aspiration to reach the long-term goals and to request the ratification of the Doha Amendment by those Parties that have not yet done so.

### ENDESA's standpoint and response

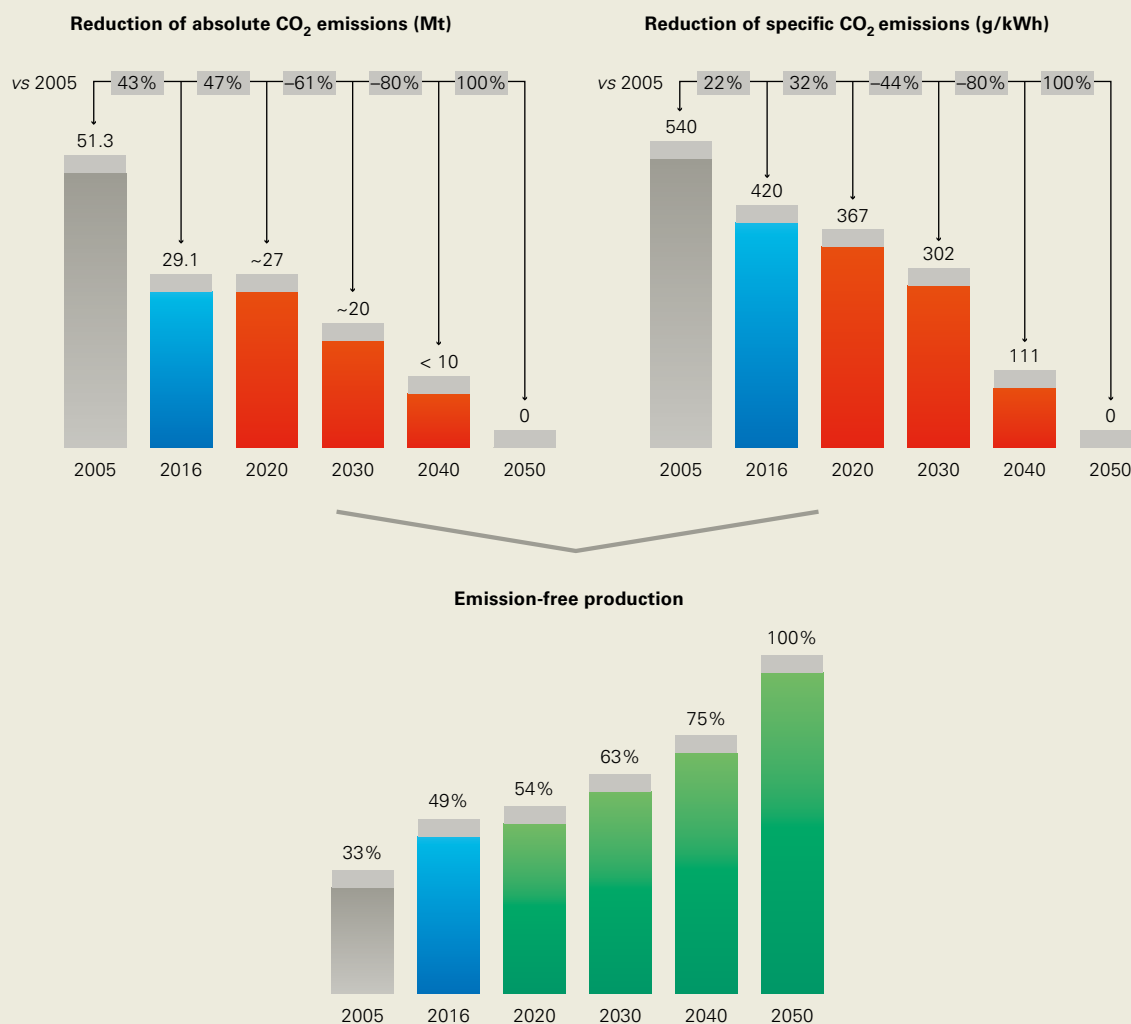
Due to the impact of the decisions, which might be adopted in the European Union as a consequence of the climate change agreements established in COP21 and COP22, ENDESA has followed these negotiations closely.

In this regard, ENDESA has joined the extraordinary drive occurring worldwide in the struggle against climate change. For this reason, ENDESA has presented in its new 2017-2019 Strategic Plan the Roadmap to achieve the decarbonisation of the energy mix in 2050, in harmony with the objectives established on a domestic and European level with the European Union Energy Roadmap 2050 and 2030 Framework for Climate and Energy.

Likewise, ENDESA acknowledges the essential role to be played by renewable energies in order to fulfil the objectives of the Paris Agreement. For this reason, in 2016 it purchased the entirety of Enel Green Power España, the subsidiary of Enel devoted to renewable energies in Spain, 40% of which it already owned, so that any additional capacity installed should derive from renewable sources. To this end, ENDESA foresees the investment of over 500 million Euros during the coming years to increase its installed capacity in renewable energies.

Similarly, taking into account that approximately 80% of emissions are produced in cities, ENDESA has a firm commitment to the furtherance of sustainable urban development; for this reason ENDESA will increase its commitment to electrification of demand (as a lynchpin for the decarbonisation of the so-

## Roadmap toward decarbonisation in 2050



called diffuse sectors, particularly transport), energy efficiency and the development of energy solutions with renewables and electrical personal consumption for customers.

On the other hand, the Paris Agreement highlighted the importance of moving forward not only in matters of mitigation, but also in adaptation to climate change. ENDESA acknowledges the importance of this matter, and therefore continues committed to adaptation to Climate Change, in order to reduce the risks associated with the impact caused by climate change, and to detect new opportunities for the Company.

Although there is still a long way to go, ENDESA is working at the highest level on the achievement of its emission reduction objectives, the Executive Steering Committee being the body in charge of defining and driving the policies and goals in the struggle against climate change, and including them in the Company's decision-making.

Each year, ENDESA updates in its ENDESA Sustainability Plan the short-term CO<sub>2</sub> emission reduction objectives, in line with achieving its "carbon-neutral" objective in 2050.

## 1.2. Risks and opportunities derived from climate change

### G4-EC2

The risks and opportunities derived from climate change may be divided into two categories: physical and regulatory.

## 1.2.1. Physical risks

Future climate forecasts state that the energy sector will be affected by climate change and that its consequences will affect the entire value chain, from generation to distribution. However, the results of the Climate Change Adaptation Study performed by ENDESA reveal that the risks to which the business lines will be subjected are classified as between low and very low, and it is also expected that they will materialise slowly and in the future. These conditions enable the gradual implementation of different adaptation measures to avoid these risks.

For this reason, at ENDESA the physical parameters associated with climate change are not expected to have a significant adverse effect on the assets.

## 1.2.2. Risks and opportunities derived from the regulatory framework

Increasing regulations concerning objectives for energy and the reduction of emissions in the European setting represent different risks and opportunities for ENDESA:

### European Emission Trading System

The European Emission Trading System (EU ETS) is the principal mechanism for the achieving of the EU carbon emission reduction objectives: 20% by 2020 and 40% by 2030. Over the last years, this has been modified in order to optimise functionality and to manage the surplus emission rights.

One important risk is the reduction of emission rights, due to both the modifications to the EU-ETS adopted in the past years, and to the foreseen increase in the annual reduction rate in Phase IV, as from 2020. The reduction in supply implies the risk of increased electricity generation costs and

might even cause, in a scenario of scarcity of rights, modifications to the order of merit: an increase in the price of thermal generation might even entail the replacement of coal-fired facilities by natural gas-fired units.

ENDESA's carbon management strategy is based on the forecast of its own CO<sub>2</sub> emissions, balancing this fact with its future estimates of the price of carbon and the optimisation of the volume and value of its current carbon credit portfolio.

## Renewable energies

Renewable energy plays a key role in the transition toward a competitive, safe, sustainable energy system in the EU. In order to achieve a low-carbon economy in 2050, the European Union has set the following binding goals:

- > To achieve a 20% participation of renewable resources in the European Union's energy consumption.
- > To increase the share of renewable energy to at least 27% of the European Union's energy consumption in 2030.

In order to promote projects in the field of environmental protection and to achieve a safe, affordable, sustainable European energy market, in July 2014 the European Union adopted the 2014-2020 Guidelines on State aid for the protection of the environment and energy.

In this field, in 2014 Spain passed Royal Decree 413/2014, regulating the production of electricity from renewable energies, cogeneration and waste. This Decree establishes the legal framework for making renewable energies more competitive, and therefore more attractive to investors.

The increase in the amount of renewable energy generated might entail a risk as it entails a reduction in the thermal gap. However, ENDESA considers that in fact this question represents a great opportunity for the development of new business opportunities based on renewable energies. This is why in 2016 ENDESA acquired 100% of Enel Green Power, in line with the established objective of decarbonisation in 2050. This company is exclusively devoted to the production

of electrical power generated from renewable sources in Spain, and at 31<sup>st</sup> December 2016 possessed 89 wind-turbine, hydraulic, solar and biogas generation facilities, with a consolidated installed capacity of 1.7 GW and a production of 3,706GWh.

## Energy efficiency

Energy efficiency represents the third pillar of the European energy and climate strategy, contemplating the following objectives:

- > Climate and Energy Package 2020: 20% improvement in energy efficiency in 2020 in comparison with original plans.
- > Climate and Energy Package 2030: 27% improvement in energy efficiency in 2030 in comparison with original plans.

Improved efficiency enables a saving in costs and an opportunity for the marketing of efficient energy solutions. The EU has instigated several initiatives to accelerate investment in energy efficiency:

- > «Horizon 2020»: the EU research and innovation programme for the 2014-2020 period.
- > Private Finance for Energy Efficiency is the instrument of the EU LIFE Programme, which co-finances energy efficiency programmes (a budget of 80 million Euros for 2014-2017).
- > Project Development Assistance (PDA) grants focused on sustainable energy projects at a facility level, whose aim is to promote the raising of investments in sustainable energy projects.
- > The European Energy Efficiency Fund, which promotes the sustainable energy market and climate protection.
- > The Investor Confidence Project, which develops a set of best practice standards to make buildings more energy-efficient.

ENDESA, as it operates in Spain and Portugal, must guarantee compliance with these obligations; to this end it has an

energy policy whose goals are the development in addition, implementation of energy-efficiency programmes, as well as the adoption and furtherance of innovative programmes to make its activities ever more efficient from the point of view of climate change (for further information, see the chapter *Electricity, society's energy vector*).

During 2016, ENDESA achieved an approximate saving of 17,000 GJ of power due to the efficiency improvement programmes in our operations. These savings have led to a reduction in operational costs, and therefore increased profits.

Other benefits associated with these new regulations include an increase in the demand for ENDESA's Value-Added Products and Services (VAPS), whose aim is to aid customers in improving energy efficiency. For further information on this matter, see the chapter *Orientation to Customers*.

## Electrification of demand

Taking into account the possibility of generation by means of renewable sources, and in all cases greater efficiency in the final use of electrical energy with regard to fossil fuels, both to comply with the current EU environmental objectives and, evidently, to achieve the long-term decarbonisation of the economy, electrification of the demand is essential.

More specifically, and parallel with the development of renewable energies, electrification of demand must provide for a major expansion of electric mobility and of the use of electricity in household heating.

## Electric vehicle

The European Union must accelerate the electrification of its fleet of vehicles in order to achieve the objectives established in the *White Book on Transport*, which establishes the objective of reducing greenhouse gas emissions from the transport sector by 60% in 2050, compared with the levels of 1990, and by 20% in 2030 compared with the levels of 2008.

To decarbonise the transport sector, the EU has established the following legal frameworks to promote the use of electric vehicles:

- > The Energy Taxation Directive (2003) to restructure the way energy products are taxed, bearing in mind both their CO<sub>2</sub> emissions and their energy content.
- > The Clean Fuels Strategy was launched in 2013 to guarantee the creation of alternative fuels throughout the EU, such as the use of electricity. It establishes a minimum number of recharge points that must be installed by each Member State by the year 2020 – specifically, 82,000 and 12,000 for Spain and Portugal, respectively.
- > The Energy Union Package stresses the need to decarbonise the transport sector, as this represents over 30% of the final energy consumption in Europe.

On the other hand, there are initiatives underway in the EU to further the use of electric cars, such as Green eMotion and the Green Vehicles Initiative.

Bearing in mind ENDESA's commitments to promoting the use of electric vehicles, this legal framework represents a clear business opportunity. The availability of capital may also increase as electric mobility is seen as a safe investment.

For information on how ENDESA manages this opportunity, all the initiatives in which ENDESA participates may be viewed in the chapter *Innovation and Digitalisation*, section 3: *Sustainable Mobility*.

## Household heating

The force of technological change in household heating caused by its electrification contributes to a reduction in CO<sub>2</sub> emissions, and collaterally, to an improvement in the quality of the air in urban areas.

The opportunities for ENDESA arise from the prediction of an increase in the demand for electricity, and also the marketing of technology such as heat pumps and other value-added products and services tendered by the Company.

## Remote management and smart networks

The intention of the EU is to replace at least 80% of conventional meters with smart meters by 2020, as smart measurement and the deployment of smart networks may reduce emissions in the EU by as much as 9%. This will entail the installation of almost 200 million smart meters in the EU by 2020, entailing a potential outlay of 45,000 million Euros.

To this end, the Spanish State has developed the corresponding regulatory framework, obliging the supplier companies to deploy smart meters for all their customers. This obligation doubtless represents an opportunity for ENDESA, as experts and pioneers in smart measurement, and it is to be expected that the demand for this service will increase in the coming years. To process this opportunity, ENDESA has defined a Smart Measurement Deployment Scheme. This scheme has been in operation since 2010, and it is expected that a total of 13 million conventional meters will be replaced by 2018. For further information, see the chapter *Innovation and Digitalisation*, section 2.2.2, *Digitalisation of the Distribution Grid*.

## 1.3. The carbon market and compensation mechanisms

Project-based flexible emission-reduction mechanisms, such as the Clean Development Mechanism (CDM), continue to represent a significant part of ENDESA's climate change strategy.

The activity of following-up CDM projects, the development of the voluntary market and ENDESA's participation in different Funds managed by the World Bank is performed by the Global Origination unit. In spite of the crisis in the emissions market, Global Origination has enabled ENDESA and Enel to continue to be an international referent in the carbon market.

On the other hand, in 2016 ENDESA confirmed in Catalonia its support for the Voluntary Agreement Programme for the Reduction of Greenhouse Gases, promoted by the Catalan Climate Change Office (which includes, in its first phase, the High-Voltage Grid and High Voltage-Medium Voltage transformation in Catalonia). ENDESA's contribution to this programme has been audited by TÜV Rheinland, encompassing in its scope the two projects executed in 2016. Firstly, the upgrading of the double 110kV S.Fost-S.Mateu loop to meet the demand from the area, consisting of the replacement of the existing conductor cable with another of greater diameter, over 6.6 km of the 110kV S.Fost-S.Mateu-1loop and 6.6 km of the 110kV S.Fost-S.Mateu-2loop, providing a saving of losses estimated at 932 MWh/year, due to the reduction in resistance of the upgraded stretches. Secondly, the replacement of the TR7 220/110 kV 100 MVA transformer at the Julià substation with another more powerful one (200MVA), providing an estimated saving of losses of 672 MWh/year, mainly due to the reduction of losses in the copper, losses in the iron and losses due to ventilation.

Both activities provide a saving of 484 tons of carbon dioxide (CO<sub>2</sub>) emissions, comparable to the energy consumption (electricity and gas) of 120 75-m<sup>2</sup> homes during a year. In this way, ENDESA contributes to the struggle against climate change.

### 1.3.1. CDM Portfolio

EU5

ENDESA has 3 ERPA's (Emission Reduction Purchase Agreements) in its portfolio, each comprised of 5 CDM projects, which would entail a reduction in emissions of approximately 4 million tons by 2020.

### 1.3.2. Carbon funds

EU5

ENDESA continues to take part in 3 carbon funds managed by the World Bank: the Community Development Carbon Fund (CDCF), the Spanish Carbon Fund (SCF) and the Carbon Partnership Facility (CPF).

Since its incorporation into these, ENDESA has not only contributed to the reduction of emissions, but has also been a party to the supplementary benefits provided for the less privileged communities. Many of the projects in which ENDESA has taken part and continues to do so have contributed to improving the quality of life of over 18.2 million people.

Currently, and due to the proximity of the expiration of most of these funds, the total expected reduction in emissions by 2018 is approximately 500,000 tons.

### 1.3.3. Voluntary compensation for greenhouse gas emissions

EU5

In 2016 ENDESA voluntarily compensated for the greenhouse gas emissions of several of its domestic and international customers, using for this purpose credits not only from its CDM project portfolio but also specific credits from the voluntary market (VERs, Voluntary Emission Reductions). In the same way, the Company continued with its policy of compensation for the emissions generated by its own internal events.

On this occasion, the credits employed for the compensation for internal events derive from a project introducing recovery, pre-treatment and exploitation systems for the biogas (methane) generated in municipal or regional refuse tips in Brazil. The approximate annual emission reductions from this project are 870,596 equivalent tons of CO<sub>2</sub> and the total reductions during the entire project are estimated to be 6,094,170 equivalent tons of CO<sub>2</sub>.

On the other hand, it is important to stress the continued acquisition of specific credits from the voluntary market (VERs) by certain customers of ENDESA, and the commitment undertaken by some of them who, for the sixth year running, have acquired credits derived from projects in India and Tanzania in order to compensate for the emissions generated by their industrial activity.

In accordance with the Enel Group's policy, ENDESA's aim is to continue with the voluntary compensation for greenhouse gas emissions from internal events during 2017.

### 1.3.4. Other compensation mechanisms

#### The ENDESA Wood

In order to continue innovating in the field of environmental solutions and to move forward in its ongoing commitment to the struggle against climate change, the Company has started-up a new line of work in the field of mitigation based on carbon sinks, the ENDESA Wood.

This is a reforestation project in an area covering 21.52 hectares of land recently affected by a forest fire, and includes living plant improvement works, and the planting and sowing of indigenous species.

The objective is to compensate for part of the emissions caused by the Company's activities and at the same time to carry out internal and/or external training or informative activities concerning the importance of combating climate change. The social perspective is held present throughout; for this reason, for the fieldwork personnel at risk of social exclusion are hired, if possible from the rural areas surrounding the project.

Finally, it should be noted that proceedings have commenced for the registering of the project in the Spanish National Carbon Footprint Register. Once the requirements are fulfilled and the inscription in the aforementioned Register has been performed, ENDESA, S.A. will obtain the "Compensatory" stamp from the Ministry of Agriculture, Fisheries, Food and Environment, certifying and acknowledging the effort and dedication of the companies with the greatest awareness in the field of absorption of CO<sub>2</sub> emissions, a result of the reforestation of land previously deteriorated or damaged by fires.

## 1.4. Carbon Disclosure Project

ENDESA, by its commitment to the environment, cooperates voluntarily with CDP (previously Carbon Disclosure Project). CDP is an international not-for-profit organisation whose aim is to provide the largest and most comprehensive global system of environmental diffusion, enabling investors, companies, authorities and governments to mitigate risks in the use of energy and natural resources, and to identify opportunities for a more responsible approach to the environment.

ENDESA takes part in the CDP Climate Change, CDP Supply Chain and CDP Water questionnaires.

### CDP Climate Change

Since 2006, ENDESA has taken part in the CDP Climate Change initiative, the most prestigious index in climate change matters, which provides global information on the management of the risks and opportunities identified by the largest companies worldwide. This initiative is backed by 827 institutional investors with assets of over 100 billion dollars.

ENDESA obtained a "Management" level score in the last edition, a level corresponding to companies that

#### Participation in the CDP pilot project for the new assessment methodology for the electricity sector

ENDESA is taking part in the CDP pilot project for the development of a new assessment methodology specific to the electricity sector, whose goal is to assess its commitments to climate change and the degree of progress and commitment of these companies toward a low-carbon model.







have not only identified the climate change-related risks and impacts of their activities, but have also defined the necessary policies, strategies and programmes to mitigate these risks. This appropriate management will contribute to the achievement of the global objective adopted

in the COP21 held in Paris in 2015, to limit the increase in temperature of the planet to 2° C by the year 2100, in comparison with pre-industrial levels.

## CDP Supply Chain

The CDP Supply Chain is a programme enabling organisations to programme strategies for the commitment of suppliers via the analysis of risks and opportunities associated with climate change and greenhouse gas emissions. It is a cooperative, innovative approach that contributes to the sustainable development of the value chain.

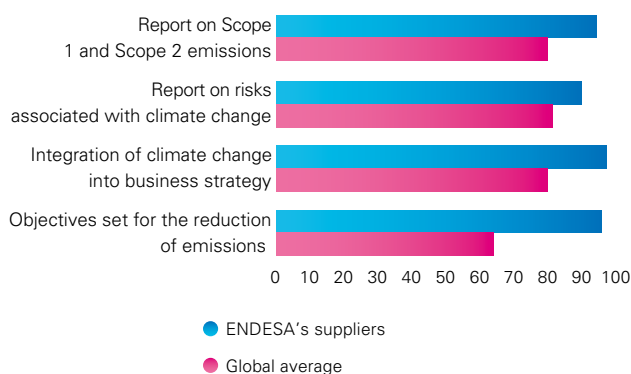
Since 2010, ENDESA has involved its suppliers, requesting them to fill in the CDP Supply Chain questionnaire, with the intention of transferring the commitment to climate change and to the reduction of emissions. In 2016, the rate of response was over 80%, compared with the 70% average obtained by the companies participating in the initiative.

The involvement of the suppliers in their response to ENDESA's request for information is well above the global average, the quantity and quality of the responses being higher than the average participation by suppliers of other companies taking part in said initiative.

ENDESA's supply chain is highly committed to climate change, has set objectives for the reduction of emissions and fully understands the risks of climate change and the approach to reduce its impact.

|  | ENDESA's suppliers 2016 | Global Average 2016 |
|--|-------------------------|---------------------|
| Objectives set for the reduction of emissions        | 96%                     | 64%                 |
| Integration of climate change into business strategy | 97%                     | 80%                 |
| Report on risks associated with climate change       | 90%                     | 81%                 |
| Report on Scope 1 and Scope 2 emissions              | 94%                     | 80%                 |

## ENDESA's commitment to Supply Chain climate change 2016



Finally, it should be highlighted that ENDESA's suppliers display a sound performance and progress in the reduction of emissions, driven by strong relationships and cooperation with other companies and their own suppliers.

## CDP Water

Information on ENDESA's participation in the "CDP Water" initiative is included in the chapter *Environmental Sustainability*, section 2.3, *Hydric resources*.

# 1.5. Active participation in entities and initiatives in the struggle against climate change

## 1.5.1. Domestic entities and initiatives

|   |   |  |
|---|---|--|
|    | <b>Spanish Group for Green Growth</b>                                     | Association formed to further public-private cooperation and to move forward together in the environmental challenges currently posed.   |
|    | <b>Foretica Climate Change Cluster</b>                                    | A business-matching forum devoted to leadership, awareness, exchange and dialogue concerning climate change matters, comprised of 48 large Spanish companies.  |
|    | <b>CONAMA</b>   | ENDESA has played an active part in the 13 <sup>th</sup> edition of the National Environmental Congress, which has become a referent for sustainability in Spain.  |
|    | <b>CO<sub>2</sub> Platform</b>  | The Spanish Technological CO <sub>2</sub> Platform Association (PTECO <sub>2</sub> ) is an initiative promoted by the private sector, research centres and Spanish universities. Its scope is to tackle technological development in Spain to contribute to a reduction in the environmental, social and economic impact derived from greenhouse gas emissions in our country. |
|   | <b>Spanish Association for Standardisation and Certification</b>          | ENDESA participates in AENOR's Technical Committee for Standardisation for Climate Change and Renewable Energies.  |
|  | <b>Spanish Association for the Electrical Industry (UNESA)</b>            | ENDESA participates in UNESA's workgroup on climate change.  |
|  | <b>ADAPTA (Spanish Office of Climate Change)</b>                          | The objective of the Adapta initiative is the inclusion of adaptation to climate change into the business world.   |
|  | <b>Sustainability Excellence Club</b>                                     | ENDESA participates in the Club's Environment and Climate Change workgroup.  |
|  | <b>Spanish CO<sub>2</sub> Association</b>                                 | It is the purpose of the AECO <sub>2</sub> to drive activities directed toward the improvement of energy efficiency and the development and implementation of technologies for the capture, transport and storage of CO <sub>2</sub> .   |
|  | <b>Spanish Technological Platform for Energy Efficiency (PTE-EE)</b>      | The purpose of the PTE-EE is innovation in energy efficiency technology with the aim of bringing about a reduction in demand.  |
|  | <b>Platform for Electricity Networks of the Future (FUTURED)</b>          | The purpose of FUTURED is to integrate all the actors involved in the electricity sector to develop a network that can respond to future challenges.   |
|  | <b>Voluntary Agreements for the Reduction of Greenhouse Gas emissions</b> | A programme sponsored by the Catalonia Climate Change Agency for electricity distribution activities.  |

## 1.5.2. International entities and initiatives



### **Carbon Disclosure Project**

CDP is an independent not-for-profit organisation that maintains the largest database worldwide of corporate information on climate change. ENDESA participates in 3 initiatives:

- CDP Climate Change, focused on climate change.
- CDP Supply Chain, focused on driving action against climate change in the supply chain.
- CDP Water, focused on sustainable water management.



### **COP22**

ENDESA attended the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Marrakech from 7<sup>th</sup> to 18<sup>th</sup> November 2016.



### **Global Carbon Market Fair & Conference (Carbo Expo)**

Carbo Expo focuses on moving forward toward the future of carbon markets. ENDESA was present at the Cologne edition, held between 25<sup>th</sup> and 27<sup>th</sup> May 2016.



### **Association of the Electricity Industry in Europe**

ENDESA participates in various workgroups focused on environmental issues, such as economy and environment, or climate change.

## 2. Development of renewable energies

Enel Green Power España (100% owned by ENDESA), the fourth largest Spanish operator in the Spanish renewables sector, undertakes the development and management of all the renewable energies of ENDESA in Spain.

This company is devoted exclusively to the production of electrical power generated from renewable sources in Spain, and at 31/12/2016 possessed 89 wind-turbine, hydraulic, solar and biogas generation facilities, with a consolidated installed capacity of 1.7 GW and a production of 3,706 GWh.

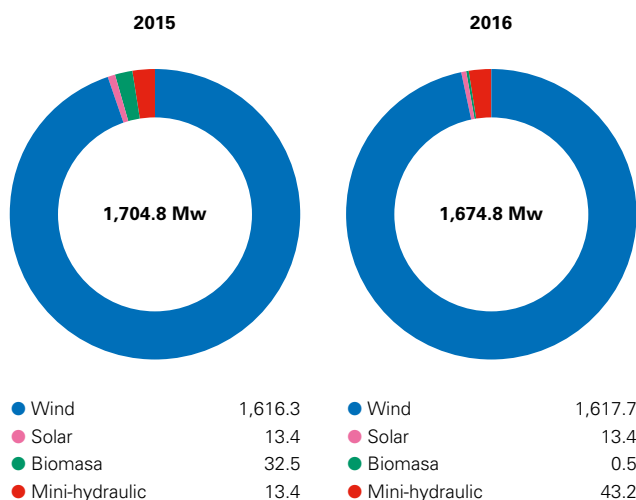
In order to ensure an efficient transition in the generation mix, ENDESA's 2017-2019 strategic plan includes the allocation of 500 million Euros for the development of renewables, in order to fulfil the EU objectives for 2030.

Enel Green Power España has been one of the pioneering sponsors in the revamping of wind farms. In 2010 two farms in Tarifa, installed in 1998, were upgraded, Energía Eólica

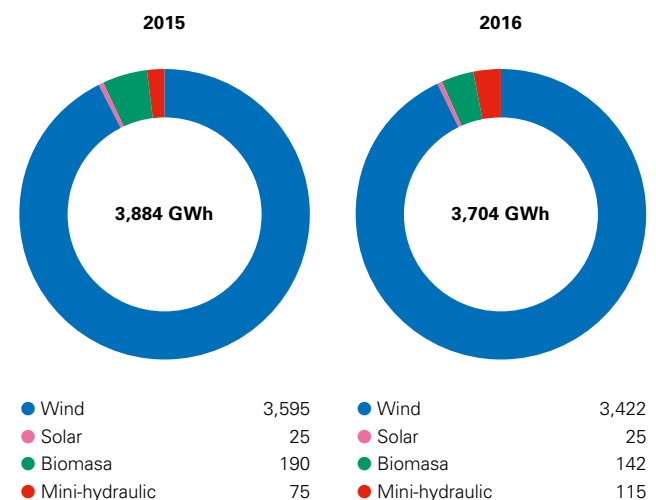
del Estrecho and Pesur. These progressed from two farms, together producing 30 MW and with 250 wind turbine generators, to two farms together producing 74 MW and with 37 wind turbine generators. This revamping was followed some years later by 5 more upgrades in the Canary Islands: Arinaga, Fuencaliente and Garafía, and those, which have just entered into service in Cueva Blanca and Barranco de Trajana.

Among the main milestones achieved during 2016, of particular note is having become the first renewables company in the world to participate in the tertiary regulation adjustment market, which until now was supported by conventional technologies. Since 1<sup>st</sup> April last, EGPE tenders hourly its power on the tertiary regulation market, that used by the System Operator to restore the energy band in the event of momentary imbalances. In this way, wind generation contributes for the first time to adjusting the requirements of the electrical system in Spain.

Net installed renewable power (MW)



Production of renewable energies (GWh)



## 3. Reduction of the carbon footprint

In 2016, the report on the Carbon Footprint corresponding to the year 2015 was verified and published. To date, the Company has calculated its Carbon Footprint, encompassing all its lines of business, from 2009 until 2016.

### 3.1. Calculation and logging of the Carbon Footprint

Calculation of the carbon footprint is an informative item that aids in ENDESA's global, integrated management of risks and opportunities regarding greenhouse gases, as it includes the emissions associated with the entire business value chain, enabling the inclusion of the "carbon component" in decision-making.

ENDESA's carbon footprint includes the development of a calculation methodology and its own software tool, the implementation of a management system and the determination of an inventory of emissions and GHG removals in their entirety. This inventory also encompasses both the direct emissions generated by activities controlled by the Company and the indirect emissions over which it has no control, but which are consequence of the activity performed.

Within this strategy, and for the purpose of integrating the carbon footprint into an integral management system for all types of emissions and to endow it with recognised validity, the verification of ENDESA's carbon footprint is performed in accordance with the UNE-ENISO14064-1 Standard.

In 2016, for the second year running, ENDESA logged its Carbon Footprint in the Carbon Footprint, Compensation and Carbon Dioxide Absorption Project Register of the Ministry of Agriculture, Fisheries, Food and Environment. The purpose of this register is to contribute to the reduction of greenhouse gas emissions on a domestic level, to increase absorption by carbon sinks throughout our territory and thus to facilitate compliance with the international commitments undertaken by Spain in matters of climate change.

Subsequent to the logging of its Carbon Footprint in this Register, ENDESA has been granted the national seal of carbon footprint calculation by the Ministry of Agriculture, Fisheries, Food and Environment.

In the consolidation of the results included in ENDESA's Carbon Footprint, a shareholding and operational approach is considered, according to ENDESA's scope of consolidation which is determined by the Company's Economic and Financial Directorate-General.



In this way, 100% of the emissions from those facilities where ENDESA has a majority shareholding, and therefore responsibility for the operational management of the facility, are included. Besides, emissions from those other facilities where a majority shareholding is not owned are also included, to the extent of the percentage of the shareholding owned by ENDESA. This is the case with the nuclear facilities.

## 3.2. Direct and indirect CO<sub>2</sub> emissions

G4-EN15 G4-EN16 G4-EN18 G4-DMA Emissions  
G4-EN15 G4-EN16 G4-EN17 G4-EN19 G4-EN30

With regard to the emissions in the different scopes for Spain and Portugal, the following are of note:

### Scope 1

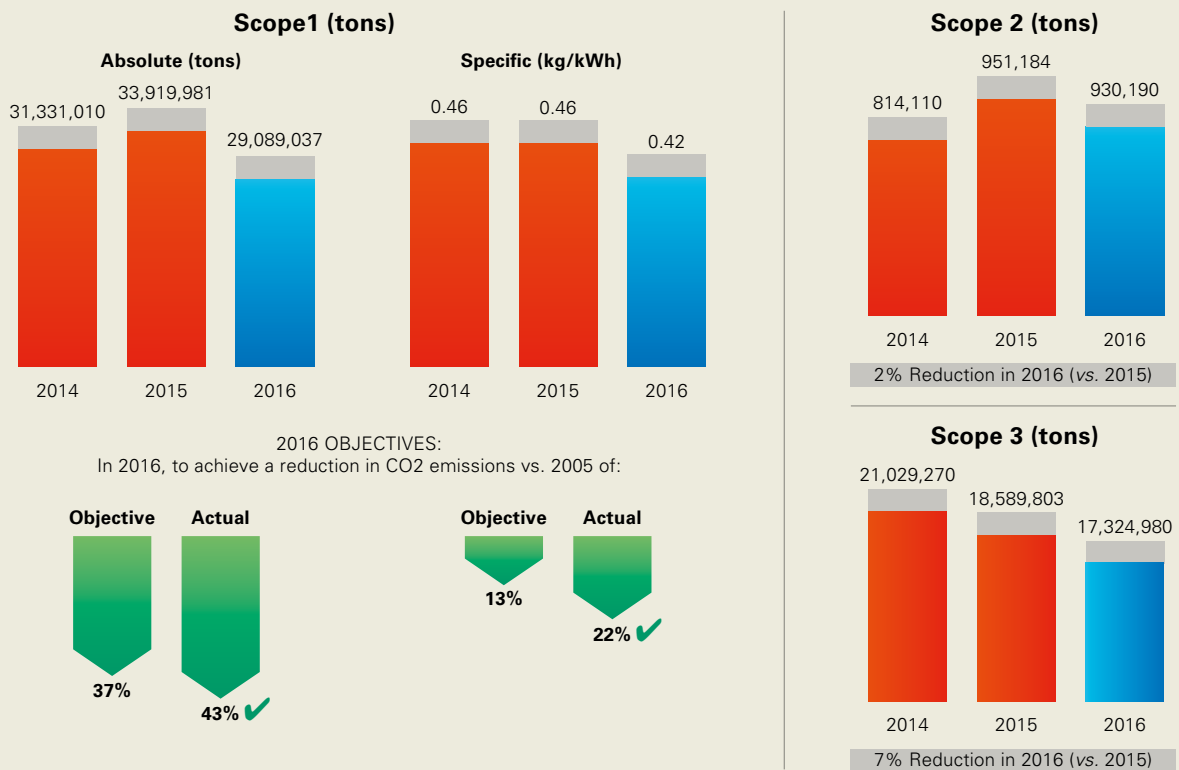
The bulk of Scope 1 in ENDESA's case derives from the use of fuels for electricity generation. Therefore, variations in emissions depend to a great extent on factors such as annual rainfall, the increase or reduction in demand for power, and the contribution, to a greater or lesser extent, of renewable energies to the energy mix.

In this regard, thermal power generation fell by almost 12% in 2016, resulting in a reduction of approximately 13% in absolute CO<sub>2</sub> emissions. The reduction in thermal production was distributed unevenly among the different technologies: a reduction of 18.9% in the production of coal-fired facilities, and an increase of 1.5% in the production both of combined cycles and at the fuel-gas technology facilities.

### Scope 2

As part of its carbon footprint, ENDESA calculates and verifies the Scope 2 emissions derived from the various business lines in accordance with the guidelines stated in the GHG Protocol with the location-based approach. This inter-

### Evolution of CO<sub>2</sub> emissions (Scope 1, 2 and 3)



\* The figures for 2016 are liable to undergo changes, as at the moment of publishing this ENDESA Sustainability Report the external verification process was underway, as required by the UNE EN ISO 14064 Standard.

national standard provides the regulations and guidelines for companies and other organisations for the preparation of their greenhouse gas emission inventories.

Scope 2 emissions are those derived from the generation of power purchased by the Company for its own consumption, and not generated by ENDESA. This scope therefore encompasses the emissions derived from the generation of electricity:

- > Consumed by the coalmines belonging to ENDESA.
- > Consumed for pumping in hydroelectric generation.
- > Consumed in port facilities.
- > Consumed in offices.
- > Consumed in other businesses where electricity is purchased from the Grid.
- > Self-consumption (T&D Losses) of power not generated by ENDESA and distributed by ENDESA Distribution.

ENDESA's Scope 2 emissions represent less than 2% of the Company's total emissions.

The greenhouse gases considered in the calculation of Scope 2 Emissions are as follows: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O.

Since 2009, ENDESA's Scope 2 emissions have fallen by 13%. Although data on the Carbon Footprint since 2009 are available, given the characteristics of the organisation with regard to business stability (purchases, sales, etc.), the baseline year selected has been a "rolling baseline year".

That is to say, each year the results will be compared with those of the previous year.

## Scope 3

Scope 3 of ENDESA's Carbon Footprint includes those emissions, which, although not generated at sources controlled by ENDESA, are a consequence of its activity. This Scope encompasses all those associated with the different stages of the life cycle of electricity not controlled by the Company and which are not included in the previous Scopes, taking into account:

- > The extraction, production and transport of fuels consumed in operations.
- > The fabrication and transport of chemical products consumed in operations.
- > The transport and treatment of waste generated during operations.
- > The generation of electricity distributed by ENDESA Distribution but not generated by the facilities of ENDESA Generation, as this last is accounted for in Scope 1.
- > Journeys made by personnel by air, rail or rented/leased vehicles.
- > The vehicle fleet used for the maintenance of facilities (electricity T&D, hydraulic production and wind turbine generation) owned by contractors.

Variations in Scope 3 emissions depend mainly on the balance between the power generated and that distributed by the Company, and on the life cycle of the fuels used in thermal generation.



## 4. Carbon capture and storage

During 2016, ENDESA has continued to carry out various initiatives in the field of Carbon Capture and Storage (CCS):

- > Since 2011, ENDESA has operated a pilot facility for the cultivation of microalgae for the capture of CO<sub>2</sub>, located at the Litoral thermal power plant in Almería. Its main purpose is to test new types of both photo bioreactors and microalgae, and to develop valorisation processes for the biomass obtained as a first step to demon-



Microalgae pilot facility at the Litoral Thermal Power Plant in Almería

strate the technical-economic viability of the technology. In this regard, during this year the Algae for a Healthy World(A4HW) project was initiated, this being a consortium led by ENDESA and formed by 7 bodies and research organisms in order to move forward in the research and development of different types of microalgae for their application for nutritional purposes.

- > ENDESA, together with Hulleras del Norte (HUNOSA) and the Spanish Scientific Research Council (CSIC) have operated since 2012 a CO<sub>2</sub> capture pilot facility by means of the process of calcination-carbonation cycles at the La Pereda thermal power plant in Mieres (Asturias). This facility, 1.7 MWt in size, is the largest pilot facility in the world using this technology and the only one integrated into a thermal power plant and using real combustion gases. This technology is included among the second-generation CO<sub>2</sub> capture technologies, more efficient and less costly. Within the framework of this research, ENDESA takes part in the European CaO<sub>2</sub> project, in order to test a variant of the process, which would enable a considerable reduction in its costs.

# 5. Adaptation to climate change

Since 2011, ENDESA has analysed aspects concerning adaptation to climate change, assessing the climatic impact at its facilities. In addition, since 2014 it has taken part in the ADAPTA initiative, promoted by the Ministry of Agriculture, Fisheries, Food and Environment. The purpose of this initiative is to extend the coverage of the National Plan for Adaptation to Climate Change to the private sector, bringing this adaptation closer to strategic business planning. In 2015, this initiative commenced its second phase, with the aim of identifying specific adaptation measures to tackle the climatic risks faced by the facilities.

Thus, during 2016 ENDESA has undertaken the following activities:

## The RESCCUE project (Resilience to cope with Climate Change in Urban Areas) for the improvement of urban resilience to climate change



This is the first large European project for innovation in urban resilience. The initiative, financed jointly by the EU Horizon 2020 programme, seeks to improve the capability of cities to prepare for, absorb and recover from a crisis as quickly as possible. Specifically, the Rescue project focuses on assessing the impact of phenomena derived from climate change on the functioning of essential services in cities, such as water or power, and on providing practical, innovative models and tools to improve the resilience of cities in the face of current and future climatic scenarios. Rescue has a budget of 8 million Euros and is to be performed over 48 months on three case studies in Barcelona, Lisbon and Bristol.

ENDESA is working on the case study of Barcelona, to analyse the effect of risks associated with flooding, drought, heat waves or a possible rise in sea level on urban services such as water and power supplies, transport, telecommunications and the treatment of waste in the city. To this end, the interdependence existing between these essential services is analysed.

ENDESA's role is focused on quantifying the impact of climate change on the capacity of reinstatement of the electrical power supply and its interaction with the water cycle. The project will thus enable analysis of the improvements which smart networks, and specifically micro-networks (small-scale systems combining electricity generation, storage and distribution) may contribute to the resilience of cities.

## Project « Hydroelectric Reservoirs and Climate Change »

Contribution to the strategy of adaptation to (global) climate change of ENDESA's hydroelectric facilities.

An initiative developed by ENDESA with the cooperation of the Flumen organisation, a joint university institute created by the Polytechnic University of Catalonia and the International Centre for Numerical Methods in Engineering (CIMNE).

Based on the study of the thermal/hydrodynamic behaviour of 3 of the hydroelectric facilities managed by ENDESA (Sau, Ribarroja and Matalavilla) performed by Flumen in the past, the project seeks to analyse the incidence of global change (climate change plus changes in the use of water and of territory) on the internal organisation (annual thermal cycle) at the Spanish hydroelectric facilities managed by ENDESA.

This said general goal consists of 3 specific stages:

- A. Identification of key parameters in the annual internal organisation (thermal cycle) of the hydroelectric facilities,

their interdependence and their possible relationship with global change.

- B. Quantitative assessment of the susceptibility of the hydroelectric facilities to climate change.
- C. Determination and development of design and operation criteria for hydroelectric facilities for their adaptation to global change and the mitigation of associated environmental effects.

The project was launched in 2016 and it is expected to conclude at the end of 2018.

### HIDSOS-IV Project «Sustainability of Water Resources under Global Change »

Climate change and global change may entail a deterioration of the ecosystems providing water resources, affecting the sustainable use of these resources and the maintenance and improvement of the quality of the water in the associated river habitats. In particular, we may expect significant impacts on sediment dynamics, associated with the greater torrential nature of the rainfall, which might affect both the geomorphology of the river and the survival and usability of hydraulic structures.

This project, developed by the Catalonia Water Research Institute (ICRA), gives continuity to and improves the works performed previously and which until now have assessed the impact on water thermal cycles in rivers, the transport of sediment and its sedimentation in the reservoirs, and the implications of these for producible power, among other noteworthy aspects.

The focus of the project, by means of the use of simulations using spatially distributed and time-dynamic models, is to assess the effects of global change on the resources available and the implications for the health of ecosystems.

The work will therefore enable the identification of trends enabling the establishment of long-term strategies to reduce the effects of global change to a minimum, both for ecosystems and for hydrographic infrastructures, and the exploitation of the resources of the Noguera Pallaresa basin.

### Project for adaptation to climate change focused on ENDESA's electricity distribution business line

The general objective of the project is the identification and assessment of climate change-associated impacts capable of affecting the electricity distribution infrastructure, their monetisation and therefore the optimisation of the decision-making process in the management of the same.

The project consists of three stages, these being the analysis of the effect of climate change on the integrity and functioning of the electricity distribution infrastructures, the assessment of the economic impact associated with the occurrence of climatic impact, and finally, the assessment of the future vulnerability of the Company's electricity distribution facilities.

In addition, ENDESA carries out other activities in the field of adaptation, among these:

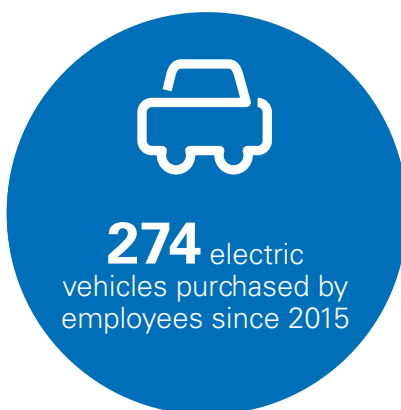
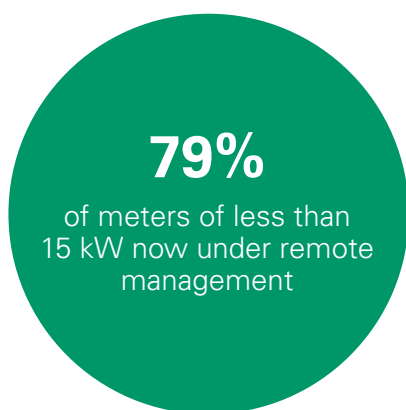
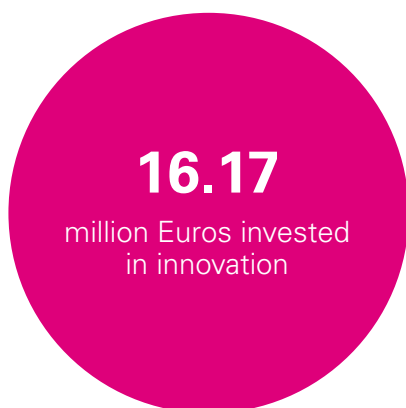
- > Presentation of ENDESA's experience in the field of adaptation to climate change at the international conference on climate change held in May in Bonn, Germany (44<sup>th</sup> period of Sessions of the Subsidiary Body for Implementation (SBI 44) and the Subsidiary Body for Scientific and Technological Advice (SBSTA 44)), and also the first period of sessions of the Ad Hoc Working Group on the Paris Agreement (APA1).
- > Collaboration in the project "Urban Resilience: Climatic effects of Economic Activity in the city of Madrid". Organised by the Madrid City Council with the aim of developing "Urban Resilience" in cooperation with the Madrid Business Forum as an example of public-private cooperation in the development of urban strategies against global challenges such as climate change. The project seeks to perform a specific study based on the experience of outstanding companies from the main sectors of Madrid's economic activity, regarding the vulnerability of their activity in the face of climatic effects and the possibility of implementing adaptation and follow-up measures to minimise these impacts.






5\_Innovation at ENDESA





## ESP compliance 2016-2019

| <br>sustainable<br>cities | Objective  | 2016<br>(31/12) | 2016<br>Objective | Principal activities   |
|--|--|-----------------|-------------------|--|
|  | Customers with meters equipped with remote management (millions).                          | 9.2             | 9.2               | – Digitalisation of low-, medium- and high-voltage grids.  |
|  | Increase in the level of automation of the medium-voltage grid (no. of remote controls).   | 12,286          | 12,367            |  |
|  | Number of digital customers (millions).  | 1.625           | 1.62              | – Digital Plan: Go Digital / Be Digital.<br>– Digital Sales Acceleration Project: improvement of the Company's digital capacity.<br>– Nexus Home: enables a more proactive dimension in the management of demand.<br>– ONE Tariff. |
|  | e-Care procedures (digital channels, s/Mix channels) %.                                    | 59%             | 58%               | – New digital channels on social networks.   |
|  | Number of contracts in force with e-billing (millions).                                    | 1.87            | 1.85              | – Digital billing with hourly consumption rate.<br>– Info Energy: information and counselling.   |
|  | Efficient, sustainable goods to solve everyday requirements via the online store (number). | 1,200           | 1,000             | – Twenergy portal: an online community concerning sustainability and energy efficiency, which also provides a wide range of efficient, sustainable goods.  |
|  | Number of visits to Twenergy (millions).   | 5               | 4.5               |  |

# 1. Innovation at ENDESA

## 1.1. Investment in innovation

### G4-DMA EUSS Research and Development

ENDESA's activities in the field of innovation stem from the Company's commitment to sustainability; it therefore continues to develop technological projects oriented toward the obtaining of value, the furtherance of a culture of innovation and the creation of advantages which are competitive from the point of view of sustainability. ENDESA carries out innovation projects in all of its lines of business.

Investment in R+D (millions of euros)

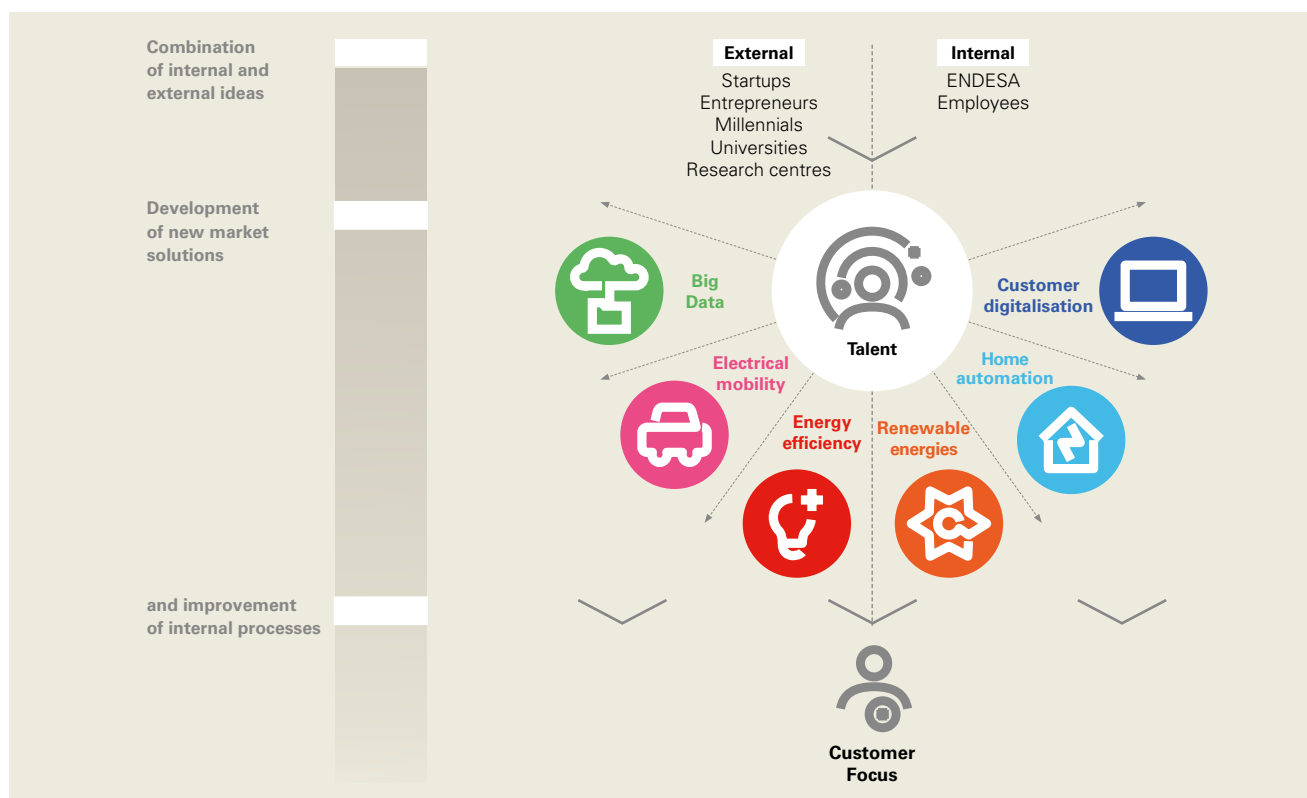
|              | 2014 | 2015  | 2016 |
|--------------|------|-------|------|
| Generation   | 4.62 | 5.30  | 4.70 |
| Nuclear      | 1.56 | 1.48  | 1.52 |
| Marketing    | 7.86 | 11.59 | 5.78 |
| Distribution | 3.98 | 3.12  | 4.17 |

## 1.2. The open innovation model

Companies need to innovate; they need to increase their capacity to find, process and develop new ideas to enable them to compete effectively in these ever-changing, unstable markets, and they must do this by optimising the resources available.

Open innovation is the innovation management model that opens up the Company to external players such as universities, startups, research centres or other organisations, to promote cooperation and the exchange of ideas.

ENDESA has adopted this model to identify quality ideas that aid the Company in its growth and in the creation of new business opportunities. The aim is to develop a new culture of innovation to enable the generation of creative solutions capable of transforming the current energy model.





With this model, ENDESA seeks to combine internal knowledge with external talent to develop solutions in the fields of distributed generation; personal electricity consumption, small renewables, energy storage, electric mobility, energy efficiency, home automation, customer experience, digital relationship with the customer and big data, among others.

## 1.2.1. The ENDESA Energy Challenges platform

During 2016, ENDESA continued to develop its open innovation platform ENDESA Energy Challenges ([endesaenergy-challenges.com](http://endesaenergy-challenges.com)) with new challenges launched to the world innovation community, in search of new energy-efficient products and services. The aim is to challenge the most brilliant minds to search for solutions to enable the creation of the energy model of the future.

The most outstanding challenges of the platform in 2016 were as follows:

## 1.2.2. Attraction of external talent: ENDESA and entrepreneurs

ENDESA has a considerable interest in working with entrepreneurs and startups due to their capacity for disruptive innovation, the use they make of technology, their know-how and particularly their adaptability in developing products and services and placing them on the market in the shortest time possible.

Our focus is on the end-user: household customers, SMEs, companies and large customers in all sectors. We seek disruptive solutions in value-added products and services, in new business models, in the way we relate with our customers and in the improvement of our own business processes.

As part of the ENDESA Energy Challenges platform, we have enabled access to the ENERGY FOR ENTREPRENEURS programme as a direct contact channel by which to receive proposals directly from both startups and individual entrepreneurs.

(<http://www.ENDESAenergychallenges.com/es/entrepreneurs/>)



Further information at [www.endesaenergychallenges.com](http://www.endesaenergychallenges.com)

We also took part in initiatives and events for the furtherance of innovation and support for entrepreneurs, such as Spain Start Up: The South Summit – the largest entrepreneurship fair in the south of Europe – among other events.

ENDESA, together with Enel and two other European partners, took part in the INCENSE accelerator ([www.incense-accelerator.com](http://www.incense-accelerator.com)), cooperating with the selection and acceleration process for startups in the ICTs sector applied to energy efficiency.

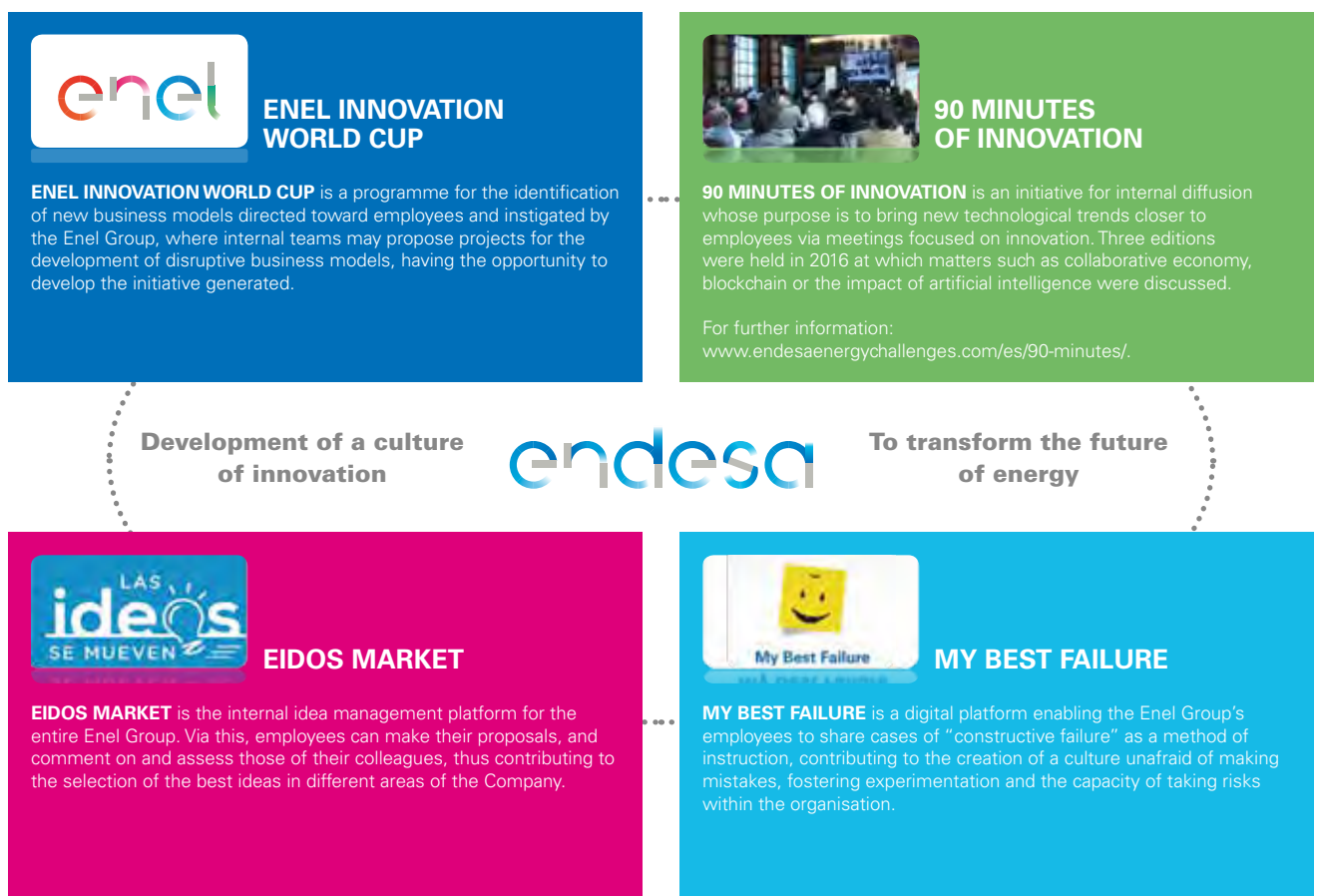
In all, the INCENSE programme, with a budget of 8 million euros co-financed by the European Commission, offered its

support to 42 startups, with a non-refundable contribution of 150k€ for each.

### 1.2.3. Furtherance of internal talent: ENDESA's culture of innovation

ENDESA encourages the creation of a culture of innovation among its employees via different programmes and initiatives which channel innovation and bring it closer to the entire Company.

Some of those most noteworthy were:



## 1.3. Innovation in electricity generation

During 2016, ENDESA has continued to develop technological innovations in order to improve the efficiency of its power generation processes and to reduce the impact on the environment.

### 1.3.1. Innovation in generation from fossil fuels

ENDESA is committed to technological improvement and the optimisation of the natural resources consumed at its facilities, improving efficiency in generation processes.

Thus, during the year, the following projects were undertaken, aimed at reducing pollutant gas emissions, the valorisation of subproducts and reducing the consumption of natural resources such as water:

- > **INNOVAALGA and A4HW Projects.** The valorisation of the CO<sub>2</sub> derived from combustion gases at the Litoral thermal power plant in Almeria by the cultivation of microalgae, and the valorisation of the biomass generated to obtain high-value proteins and sustainable fertilisers.
- > **ReCaL and CaO<sub>2</sub> Projects.** Optimisation of the CO<sub>2</sub> capture process by carbonation-calcination cycles by experimentation at the La Pereda 1.7 MWt pilot plant.
- > **GTNO<sub>x</sub>.** The assessment and validation of the injection of large quantities of water into gas turbines with liquid fuel to reduce NO<sub>x</sub> emissions, in accordance with the future limits established in the Industrial Emissions Directive.
- > **ASHREACT.** A project oriented toward the valorisation of the ash derived from the coal combustion process at the thermal power plants, by means of an alkaline pre-activation process to obtain products to replace Portland cement.

- > **CANEM.** Installation of a system for emulsifying water in fuel oil to reduce the emissions of NO<sub>x</sub> and particulate matter in fuel-oil boilers.
- > **LESSOX II.** A study of low-investment strategies to reduce SO<sub>x</sub> and NO<sub>x</sub> emissions at the thermal generation facilities, to adapt the plants to the new European Directive on emissions.
- > **ORPAO.** Improvement of the desulphurising plants by optimisation of the intermediate processes, enabling a reduction in operating costs, an improvement in the quality of the gypsum and a reduction in liquid effluents, improving quality and the environment.
- > **GYLL.** Assessment of the use of vibrating membranes for the recycling of waste heap water.
- > **MATCHING.** A project funded by the H2020 European Research Programme, whose main objective is to reduce the impact of water consumption in thermal generation plants, particularly that used for the cooling process.

Various projects have also been developed to improve efficiency in the electricity generation process, such as:

- > **COAL STOCKPILING.** The development of a project to prevent energy losses in coal yards as a result of natural oxidation and self-combustion processes, and also of the displacement of coal particles by the wind.
- > **TELESIVI.** The development of an online supervision system by means of artificial vision algorithms, based on cameras and other sensors, for the monitoring and optimisation of operation at electricity generation plants.
- > **CONAVA.** The implementation, at the Teruel thermal plant, of an adaptive predictive expert control system to optimise control of the power of the plant and to increase the flexibility of the same.
- > **COLIFO.** A system to monitor the life expenditure of the main boiler components, in order to improve the operation of the coal-fired thermal facilities.

- > **STORE.** Analysis and pilot validation of energy storage solutions to improve generation management in isolated grids.
- > **PROTEC.** Development of advanced metallic cladding for the protection of boiler pipes and increased plant availability.
- > **RUBBER.** Development of new inspection techniques to analyse the condition of rubber-metal joints in the desulphurisation plants of coal-fired thermal generation facilities, in order to reduce downtime.

## 1.3.2. Innovation in generation from nuclear energy

In the nuclear field, by means of its participation in different programmes, ENDESA has continued with its commitment to R&D. ENDESA holds the secretaryship of the Spanish nuclear fission technology platform CEIDEN, which coordinates the R&D&i activities of the sector. Via the Nuclear Energy Committee of UNESA (Spanish Electricity Industry Association), the Company also sponsors research projects of interest for its nuclear facilities. Some of the programmes of particular significance are as follows:

- > **EPRI nuclear programme**, whose purpose is to achieve the operative excellence of nuclear facilities.
- > **PCI coordinated research programme**, performed with the participation of companies of the sector and of the CSN (Nuclear Safety Council), whose purpose is to analyse the safety of nuclear facilities, both for their operators and for the regulatory body.
- > **PIC joint programme of the electricity companies and ENUSA**, which coordinates the R&D&i activities related to nuclear fuel, defining projects of common interest.
- > In cooperation with the **CEIDEN platform**, samples of the concrete from the José Cabrera Nuclear Facility, now out of use, are to be analysed in order to obtain data of great usefulness in the improvement of the safety conditions of the facilities currently in operation.

- > During 2016 an analysis was performed of the **R&D and Technological Innovation projects at the Ascó and Vandellós II facilities**, identifying projects from 2011 to 2015. During 2017 a similar operation will be performed to identify the R&D and TI projects performed at these facilities during 2016.

## 1.4. Innovation in the electricity distribution grid

G4-13

### Growsmarter Project

In October 2014, the proposal presented by the partners in the Horizon 2020 Programme was approved by the European Commission, and 25 million euros were granted for the development of the project over 5 years, commencing in January 2015. The cities selected to lead the project were Stockholm, Cologne and Barcelona, which will act as “lighthouse cities” with the implementation of 12 Smart City solutions under the umbrella of the creation of mobility, infrastructure and smart, environmentally-committed districts. ENDESA takes part in a number of solutions in the Barcelona demo, mainly in the area of integration of infrastructures and sustainable urban mobility, and whose main objectives are the provision of value-added energy-efficient services via ICT with the integration of various systems and components to improve the management of municipal assets and also the demonstration of a sustainable urban mobility system by means of the integration of different components with a new electric vehicle management system.

### Flexiciency Project

The FLEXICIENCY project, «Energy services demonstrations of demand response, FLEXibility and energy efficiency based on metering data» is a European project, financed by the European Commission, in which 4 large European distribution companies with an infrastructure of remote

management already in operation, these including the Enel Group and ENDESA, together with marketing companies, aggregators, software providers and research centres, will carry out 5 large-scale tests for the deployment and exhibition of new services in the electricity markets (from advanced monitoring to local energy control).

ENDESA takes part in the development of innovative models to provide value-added services in the city of Malaga, with the City Council as the participating end-user, for the local management of distributed generation and storage systems and the application of methods and tools for the maintenance of the assets of the grid.

During 2016, the inspection and selection process was performed on those municipal buildings and offices considered most suited for the project. Likewise, the technical specifications were defined for the Energy Box devices, these being the equipment enabling the integration of the field components (generators, microgrids, consumers, etc.) into the Energy Management System (EMS) or platform for the monitoring, control and management of the users, actors, facilities and services brought into play in this initiative.

## STEP Project

The purpose of the STEP project is to test the operation of Enel's Smartinfo devices under real operating conditions. By means of these devices, and due to their communication with ENDESA's Smart Meters, the consumption data of the real users taking part will be displayed on an online platform and via an application for mobile telephones.

In 2016, the operation of the Smartinfos with ENDESA's remote management infrastructure was validated, as was the online platform and user mobile app, and the participants taking part in the initiative were selected.

The deployment of the project, foreseen for 2017, will enable ENDESA to provide information for users on their consumption in real time, via its remote management infrastructure and according to the provisions of European regulations, thus obtaining a direct assessment by users thanks to their experience of using this innovative technology.

## IdEAS Project (Substation Automation Equipment Interoperability)

The final purpose of the IdEAS project is the development and demonstration of a complete system for an IEC 61850 digital substation project, totally interoperable and integrated in the grid. Interoperability is one of the main pillars of the Smart Grid of the future, recognised as such by the European Commission Task Force (SGTF). However, the concept of interoperability associated with Standard IEC 61850 is often addressed from the erroneous viewpoint of a mere exchange of messages. As established by the SGTF, this characteristic should go further, based on the unification of criteria, the design of profiles and practical validation, aspects covered specifically and integrally by this project.

Therefore, a design for a substation with complete, interoperable equipment will provide all the advantages sought in Smart Grids, and will enable the establishment of more ambitious goals, such as interchangeability, in addition to exploring all the possibilities provided by the digital substation, supported by TCP/IP communications networks.

Commencing in September 2016, the general architecture of the system, the information and communications profiles, and the specification of the equipment to be validated in the laboratory have been defined. Training has also commenced, based on the solutions of each of the manufacturing partners.

## 3S-CS Project (Standardization- Security-Synchronization Connected Substation)

The purpose of the project is the development of an integral system for the control of electrical substations based on the IEC 61850, with wireless capability and IoT (Internet of Things). Considering the RTU (Remote Terminal Unit) as the central element of the electrical substation, a set of components focused on improving the efficiency and safety of electrical infrastructures will be developed. Three of the main objectives of the project are:

- > **Standardisation:** the development will be carried out within the framework of the most innovative regulations and standards, and are a worldwide referent for future electrical substations, as is the case of edition 2 of the IEC 61850, which will be the fundamental objective.
- > **Safety:** electrical substations are considered by the UE to be critical infrastructures; it is for this reason that in any new development, cybersecurity must be considered a main requirement. New vulnerabilities and threats to this infrastructure will be analysed in order to minimise possible attacks, by means of the improved protection of the assets.
- > **Synchronisation:** the new Smart Grid will require the use of high-precision synchronisation protocols. Standards such as IEEE 1588, which enable time frames approaching high precision, will be considered, bearing in mind the future heyday of the process bus.

The project commenced on November, 1<sup>st</sup> 2016.

## Demand management projects

As an innovative project in the management of demand, the **European EnergyTic project** is of particular note. It consists of different innovative solutions to enable customers in public housing to achieve water and power saving objectives. The project will cover 1,000 homes in France and 700 in Spain. ENDESA plays an active role in this European project as a technology partner, leading the contribution of customer remote management in Spain.

## 1.5. Participation in Technology Platforms

In 2016, ENDESA continued to play an active role in various technology platforms oriented toward promoting the development of a much more advanced distribution grid, able to respond to future challenges. Among these, of particular note is its cooperation with the Futured platform, to whose steering group it belongs, and which consists of a forum for

dialogue and debate between different actors, to make possible a better awareness and to define a shared vision of the grid of the future.

Likewise, in 2016 ENDESA continued to be a sponsor of the Catalonia Energy Research Institute (IREC). This was created to contribute to the creation of an energetically more sustainable future while taking into account economic competitiveness and providing society with the greatest energy security.

ENDESA also belongs to the Andalusia Technological Corporation (CTA). Founded in 2005 at the instance of the Andalusia Regional Government, this is a private foundation to drive innovation, formed by 158 members, ENDESA among these.

In addition, in 2016 ENDESA collaborated with the Pro Rebus Foundation, whose purpose is to cooperate with the Royal Academy of Engineering, driving and developing all those activities that contribute to its furtherance and deployment, and particularly to its application to the business world and to society in general.

In 2016, ENDESA continued to participate in the Nuclear Fission Technology Platform (CEIDEN), formed for the purpose of coordinating the various domestic R&D plans and programmes, as well as participation in international programmes, endeavouring to orient coherently the efforts of the bodies involved.

Also this year, ENDESA continued to collaborate with the Spanish CO<sub>2</sub> technological platform.

Finally, ENDESA also belongs to Alinne, the alliance for energy research and innovation, consisting of a great domestic public-private pact, formed to enhance the international leadership of Spain in energy innovation.



## 2. Digitalisation

### 2.1. Focus

The digital transformation of a company is the process whose purpose is to transform it into an organisation totally tuned into the digital ecosystem, focused on the customer in an intelligent, agile manner. It is a process requiring significant change management, to tackle successfully the challenge of incorporating new digital technologies. These new technologies fundamentally enable the interconnection between people and things, and facilitate new access to both traditional and newly-created products and services.

This transformation requires a change of paradigm in the way of understanding the relationship between Company and customers. This new paradigm is based on the need to review the business strategy and model according to customers' needs, and starting from the "customer experience" viewpoint, commencing the redesign of internal processes, incorporating new technologies and new ways of doing things.

Digital transformation is a great opportunity for companies that want to develop a quality, efficient differential competitive advantage. But to do this, said transformation must arise from the Company's own strategy and viewpoint.

ENDESA and the Enel Group are fully aware of this new reality and of the opportunities provided by digital transformation, and have thus identified digitalisation as a priority in its 2017-2019 Strategic Plan.

Thus, digitalisation is defined as a means to achieve the development of a more sustainable business model, oriented toward the customer and his needs.

Digital transformation at ENDESA is happening in 3 fields:

### The Company's assets

- > The distribution grid: to reinforce the safety of supply, to improve the quality of service and to respond to future customer requirements, ENDESA is firmly committed to the development of smart networks, remote management and automation of the grid. In this way, ENDESA is striving to prepare the grid for the integration of the decisions adopted by all the users of the system, as the energy streams will be accompanied by streams of information.
- > Electricity generation facilities: in the same way, in order to increase the operative efficiency of the facilities and to improve their integration into the electricity system, ENDESA is increasing its efforts to undertake the digitalisation of the management of its generation facilities.

### The customer

Access by consumers to new technologies, their adoption and mass use has transformed the customer. This adoption entails new habits and customs for consumers in their personal and professional lives, and also in their relationship with companies. The great majority of them already are, or soon will be, digital, connected and social customers.

Therefore, ENDESA is working on developing the customer's digital experience, with new value proposals, new relationship channels and methods, and new business models.

### The people

Bearing in mind that digital transformation means that the Company must adapt its value proposal to the new digital customer and must adopt new technologies in its value chain, one of the great challenges for the Company is the



## Digital transformation at ENDESA



development of a digital culture that enables the development of the necessary skills to successfully lead the transformation. In this regard, ENDESA is working in different fields to promote the change of the Company's organisational culture and way of proceeding.

new technologies. This initiative will continue over the coming years by means of the deployment of those technologies with the greatest added value to the entirety of the generation facilities. Some of the most significant projects are:

## 2.2. Digitalisation of ENDESA's assets

### 2.2.1. Digitalisation of Generation Facilities

During 2016, a series of initiatives was launched in the field of generation facility digitalisation in order to upgrade efficiency and reduce emissions by means of

**BESOS IoT.** A pilot project for the optimisation of the facility's operation and maintenance processes, by means of the introduction and validation of new digital technologies. The aim of this project is to tackle both operational aspects and those of safety and environmental improvement. Among the new technologies it is intended to integrate are augmented and virtual reality, advanced communications, new monitoring processes and RFID technology.

**BIG DATA.** The use of Big Data techniques and analysis of operational data for the detection and diagnosis of faults in the main equipment of the facility.

## 2.2.2. Digitalisation of the distribution grid

### 2.2.2.1. Remote management and measurement control

#### G4-DMA Management of demand

#### Remote Management Project

The purpose of ENDESA's Remote Management Project is to implement an automatic remote monitoring and management system for the electricity supply of domestic customers.

Throughout 2016, ENDESA increased the rate of installation of remotely managed meters, with a total of 2.4 million replacements during the year, raising the total to 9.2 million, achieving the goal established in ENDESA's 2016-2019 Sustainability Plan. This translates to 79% of meters with contract power of up to 15 kW.

**ENDESA has installed 9.2 million remotely managed meters, over 79% of 15 kW meters**

ENDESA thus consolidates its position as leader in the deployment of this technological solution in the domestic market, contributing in this way to promoting energy efficiency and the sustainability of the electricity system.

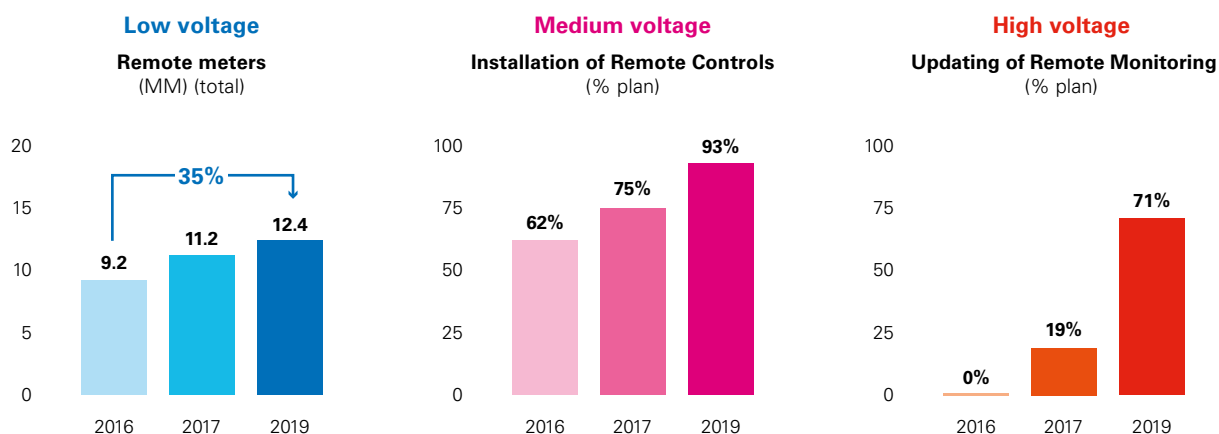
The installation of concentrators has also increased, with over 43,000 installations during the year, making a total of 120,000, which translates to a total of 96% of concentrators installed in the Transformer Centres. This enables immediacy in the integration of equipment into the remote management system, with the corresponding remote operation of the same.

ENDESA is thus complying with the legal obligations derived from the Resolution of the State Secretariat of Power of 2<sup>nd</sup> June 2015 (Voluntary Price for the Small Consumer), concerning customers with a contract power of up to 15 kW and who have a smart meter integrated into the remote management system.

The Meters and More Association, founded by ENDESA and Enel in 2010 and established in Brussels, manages the evolution and dissemination of this protocol and now has 44 members, some of these leading companies of the electricity sector, manufacturers of meters, technology companies and service providers from all over the world.

ENDESA and Enel work proactively and place the remote management solution at the disposal of other distribution companies in Spain and abroad, adapting it to the different applicable regulatory frameworks. ENDESA also participates in domestic and European innovation and energy efficiency projects via technical committees, seminars, conferences, etc., in order to aid in the European deployment of remote management and the evolution and development of Smartgrids.

In order to continue to move forward in the digitalisation of distribution assets, ENDESA has set the following goals in its new 2017-2019 Sustainability Plan:



## Other measurement monitoring and management projects

In 2016 ENDESA carried out the following projects to progress in the improvement of its distribution service:

- > **KRONOS.** A system to guarantee, regarding quality and timeliness, the processing and publication of the hourly load curves of domestic customers for the marketing companies and customers. At the end of December 2016, over 9 million load curves were received. In the case of customers opting for the Voluntary Price, 8.58 million curves were sent to the marketing companies for the billing process.
- > **EXABEAT.** In parallel with the activity performed by KRONOS, in 2016 work has progressed on a more powerful system which will enable advanced functionalities in mass data processing and in the integration of other processes to improve the use of the measurements, such as the recovery of power.
- > **C3.** Predictive models based on Supervised Machine Learning techniques for the detection of anomalies and fraud.
- > **ILLEGAL HOUSING AND DOUBLE POWER SUPPLIES.** Professional services of companies skilled in data processing and geographical information. Development of a mobile app with map functionality, to enable field contractors to locate areas with a high probability of fraud, and to manage a large amount of information simply and unambiguously. It is also necessary to have a PC application to enable the management of the work, assigning areas to different contractors and processing the information collected in the field.
- > **ARES.** A new system architecture/infrastructure enabling the processing of large amounts of information and the recovery of hourly curves with automatic mechanisms. It also includes the optimisation of remote functionalities for firmware change to improve the updating of the equipment.
- > **AMMS.** The finalising of system adaptation to the requirements established in the Royal Decree on Voluntary Prices, including principally the development of an automatic mechanism for the collection of daily closures, adaptation to meter firmware and the creation of interfaces to connect AMMS to the new Exabeat measuring system. In addition, technical modifications have been included in AMMS to enable an improvement in equipment reachability.

## 2.2.2.2. Development of smart grids

ENDESA's grids are being configured according to the Smart-Grid model. Their technification and the inclusion of Information Technology and Communications (ICTs) enable the grids to respond effectively to users' requirements.

Smart grids enable the connection and operation of renewable generation and that distributed, associated with consumption. They make possible the management of demand, flattening the load curve and maximising the use of electrical infrastructures. They make possible the deployment of electric vehicles and the development of more complete, more advanced energy services, and improve the quality of electrical supply by reducing downtime caused by breakdowns and enabling the adoption of preventive, predictive maintenance strategies.

ENDESA is developing the SmartGrid concepts in the SmartCity programmes, which it leads with several projects. In Spain, the starting-up of the SmartCity Malaga project has seen its eighth anniversary and that of SmartCity Barcelona its sixth.

Since 2010 Málaga has been a testing-ground for the development of Enel's smart grids, thanks to the performance of projects characterised by the integration of a variety of technologies into the city's electricity distribution grid.

The objective of this line of work is to analyse the way in which the current energy model can evolve toward sustainability by means of the implementation of innovative technological solutions. The main goal is to provide integrated energy solutions that enable savings of energy and a reduction in CO<sub>2</sub> emissions, in accordance with the EU objectives for 2020. Thanks to these projects, all encompassed in the Enel Group's Innovation strategy, Malaga is an international referent for electricity distribution technologies.

Some outstanding projects for the development of smart grids are detailed below:

### MONICA (Monitoring and Advanced Control of the Distribution Grid)

In 2015 ENDESA implemented project MONICA within the framework of its commitment to the improvement of the grid, for both the operator and the customer. Its objective is the development and implementation of a pioneering Status Estimator for the medium- and low-voltage grid. This is a pioneering initiative which in real time will use all the informa-



Totally automated and monitored MV/LV Transformer Centre included in the MONICA project at SmartCity Málaga

tion from the grid and the smart meters, and will include it in the DMS (Distribution Management System) for the real-time solution of operational problems, energy losses, reactive power flows, voltage level issues in lines and phases, imbalances, the early identification and analysis of incidences; also to provide options for the implementation of predictive maintenance strategies and the optimal future planning of infrastructures.

In 2016, ENDESA carried out the installation and starting-up of a great number of sensors throughout 56 MV/LV Transformer Centres, located in the SmartCity area of Malaga. This is the first step toward a smart grid capable of responding efficiently, safely and robustly to the challenges posed by the ever more common presence of distributed renewable generation systems, electric vehicle recharge infrastructures and storage systems.

## Proyecto DAREED

A European project whereby citizens' contribution to the management of energy in districts is being tested in Seville, where an energy-related market has been created where private individuals and professionals may get in touch. ENDESA, as Enel Engineering's delegate in the project, has participated directly in the city of Seville in the definition of the DAREED platform and in the tests carried out, and in the preparation of the final conclusions of the European project which concluded in December 2016.

## La Graciosa

During 2016 ENDESA continued with the works foreseen in the development of the GRACIOSA project. Fundamentally, this consisted of the planning and design of the activities to be performed on the Canary island of La Graciosa.

It should be mentioned that the Graciosa project has been underway since 2015, and its main goal is to establish the necessary strategies and systems to optimise the energy flow, for the maximum penetration of Renewable Energies into the grid. This introduction must be performed safely, and guaranteeing quality parameters in the grid.

To this end, in this project management policies will be established for grid users (Demand Response), management policies for renewable resources of the grid and management policies for storage resources (HESS).

## SmartNet

In 2015, ENDESA commenced its participation in the European consortium of the SmartNet project, a research project that seeks to face the opportunities and challenges for the European electricity system entailed by the increasing integration of electricity generation from renewable sources and the development of distributed generation. The project is encompassed in the European Horizon 2020 initiative and will continue over the coming 3 years.

The aim of this project is to provide ICT solutions, market architecture and optimised interaction between transport operators and the various distribution companies and other players in the management of information and data exchange for follow-up and for the acquisition of auxiliary services in the pan-European context, both for local requirements and for the entire system, bearing in mind the share of distributed generation and the flexibility it can provide.

The consortium is formed by a total of 22 companies and institutions from 9 European countries. ENDESA leads one of the 3 pilot studies performed within the framework of the project, specifically that performed in Barcelona. The other pilot studies are taking place in Italy and Denmark.

One of the goals is to define the future role of the distribution company as part of the operations of the electrical system, creating new roles and services for the company. To this end, the use of new technologies is being explored to group the demand from small consumers and generators, and thus to improve the efficiency and stability of the electricity grid.

SmartNet will apply new technologies to group together consumers and small-scale producers via a Trading Agent to develop adjustment services on the part of distributed

generation. In this way, the project will contribute to the design of the new role of the electricity distribution company in electricity system operations, playing an ever more active role in the electricity grid of the future.

ENDESA's participation in the SmartNet project is part of the Company's commitment to the research and development of new services in the electricity market.

## RESCCUE

Since 2016, ENDESA has belonged to the Resilience to cope with Climate Change in Urban Areas (RESCCUE) project, within the H2020 framework and funded by the EU, this being the first large European project for innovation in urban resilience. The project is focused on the assessment of the impacts on functional continuity derived from climate change and the guarantee of provision of critical services for the city, and analysis of the interdependence existing between them. Thus, RESCCUE provides practical, innovative models and tools that enable an improvement in the resilience of cities when faced by current or future climatic scenarios. Three EU cities are taking part in the project (Barcelona, Lisbon and Bristol).

In the case of Barcelona, and bearing in mind their critical nature, it was decided to include in the scope of the project the water cycle, mobility and power sectors. The supply of power is doubtless the infrastructure generating the greatest dependence on the rest, is the first to be restored in the event of a climatological disaster, and is therefore considered to be a key element in urban resilience.

### 2.2.2.3. Development of the Smartcities

#### SmartCity Malaga

The first stage of SmartCity Malaga was concluded in March 2013. Over these years, SmartCity Malaga has seen the development and installation of different cutting-edge technologies in the field of distributed production and storage of power, recharging infrastructures for electric mobility and pioneering energy efficiency solutions in buildings, companies and homes, with the active involvement of the end-users. This experiment has proven the viability of this new energy management model in cities, achieving an energy saving of over 20%, a 20% reduction in CO<sub>2</sub> emissions per year, and a significant increase in power derived from renewable sources.

The project was carried out in an area of the city harbouring 12,000 domestic customers, 300 industrial customers and 900 services customers.

After the success and the international recognition received by this pioneering project for a smart city, the city of Malaga has become a "Living Lab," a real laboratory for the Enel Group to develop smart distribution technologies for the electricity grid (SmartGrids).

This new stage of the project guarantees its continuity and establishes SmartCity Malaga as a centre for the experimentation and development of the Enel Group's electrical power distribution technologies. As a real testing ground, it features the technologies installed during the first stage of the project, which have configured the grid as a Smart-Grid, and which enable experimentation with new equipment and new models for the operation and management of any element connected thereto: consumers, generators, storage facilities and combinations thereof. The main lines of research are focused on the analysis of performance indicators, advanced operation of the grid, remote management services, cybersecurity, energy saving measures and the active management of the demand from private customers, buildings and large customers, the integration of renewable energy, storage and electric mobility.

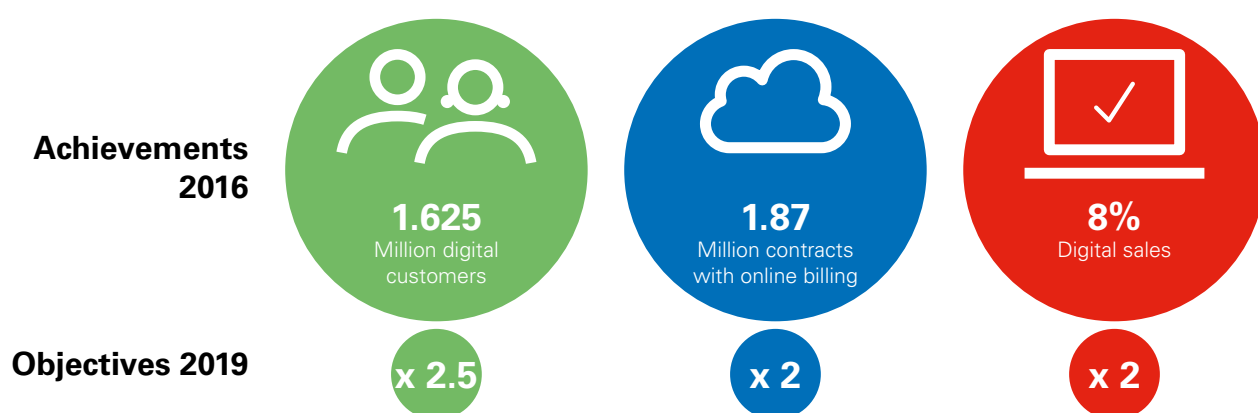


Weather station installed in SmartCity Malaga

## 2.3. Customer digitalisation

### G4-DMA Management of demand EUSS

In 2016, the rate of penetration of Internet in Spain reached 77% of the population, with 35.7 million users, 2.2 times the 16 million users existing in 2006. But the customer not only has access to Internet, but the method of access to the same has also changed significantly. Thus, customers demand a two-way communication and use social networks to share their experiences and opinions, enabling them to adopt new roles. In short, they are much more digital and social customers.





This is mainly due to the fact that the digital transformation process occurring is caused by two fundamental factors: the ever faster rate of technological innovation and the adoption of these innovations by customers.

In this context, the purpose of digital transformation in a company is to transform it into an organisation totally con-








nected to the digital ecosystem, enabling it to act rapidly and with its focus on the customer.

To this end, ENDESA has a Digital Plan whose objective is to accelerate the Company's digital transformation process while always fostering orientation toward the customer, but performing this from a double viewpoint: *Go Digital/Be Digital*.

| Field   | Objective   | Activities   |
|---|---|--|
|  | To transform the customer's digital experience                              | <ul style="list-style-type: none"> <li>Commercial website.</li> <li>New digital channels in social networks.</li> <li>Online rates.</li> <li>Digital billing with hourly consumption.</li> </ul>           |
|  | To digitalise internal processes and to develop an internal digital culture | <ul style="list-style-type: none"> <li>Digital Sales Acceleration project.</li> <li>"Open Power Space" Coworking Space.</li> <li>e-Talent training.</li> <li>ENDESA Energy Challenges platform.</li> </ul> |



In 2016, ENDESA continued with the performance of numerous digital activities oriented toward transforming the customer's digital experience, among which the following are of note:

|   |  |
|---|--|
|    | <p>ENDESA was the first Company to offer a 100% digital energy product, with a price that is always competitive, and with the possibility of carrying out all the procedures online. Over 170,000 customers now enjoy this product.</p>  |
|    | <p>The purpose of this project is the redesign and continued improvement of the Company's digital capabilities, to accompany the customer in the process of contracting products via internet. Thus, for each of the key stages, ENDESA has concentrated its efforts on the following aspects:</p> <ul style="list-style-type: none"> <li>• Promoting the online Sales Forces that are already active (mainly, positioning them on the search engines), and developing others, such as Audience Management (retargeting, look @like), based on the knowledge generated by users who show interest in ENDESA's products.</li> <li>• Improving the contract form in all its steps, to ensure the best customer experience. Thus, ENDESA places at the disposal of its customers both online aid and a telephone helpline for contracting.</li> <li>• Finally, once the contract has been formalised, accompanying the customer. ENDESA has defined and developed an accompanying plan by which it contacts customers who have entered into a contract, at those times when they might have doubts or require further information.</li> </ul> |
|   | <p>Enables the customer to enter a more proactive dimension in the management of his demand and of his home. Nexus is operated via a web-based tool and a mobile app, and provides users of the service with a new method of interacting with their homes, managing them at a distance, providing comfort, peace of mind and monitoring of consumption via internet. Among others, the main functionalities provided by Nexus for our customers are:</p> <ul style="list-style-type: none"> <li>• Controlling the heating, programming and controlling some household appliances and electrical equipment from a distance (adjusting them to the time of day when power is cheaper); finding the electricity consumption of the house and its evolution over time; receiving a warning in the event of leaving a device switched on, and being able to switch it off by remote control.</li> </ul>   |
|  | <p>Customers with smart meters who request the electronic billing service will enjoy the most comprehensive information on their consumption and the price of power hour by hour each day, so that they can save by moving their consumption to those times when the price of power is lower. They can also access energy efficiency advice provided by the Infoenergy online service.</p>   |
|  | <p>This is an initiative launched by ENDESA in 2015, with the aim of helping Twenergy users in search of practical content on efficiency and sustainability to solve a real need. It provides a wide range of efficient, sustainable products in different categories (efficient technology, efficiency in the home, sustainable mobility, etc.) for purchase at competitive prices. It is backed by a Twenergy community, a referent in the field of energy efficiency and sustainability, which provides information, recommendations and guidelines for a responsible consumption of energy.</p>  |
|  | <p>In 2016, ENDESA's presence in the social networks was completed, by adding to the service via Twitter attention via Facebook and WhatsApp. ENDESA wants to be available to its customers via the channels they habitually use, thus to increase options for its customers to be free to choose when and how they contact ENDESA.</p>  |
|  | <p>This is the base platform for customer relations and the point of entry for the performance of all the procedures carried out at ENDESA's digital office. Both this platform on Internet and its associated mobile app undergo a process of constant evolution, and thus new content and functionalities are constantly being included.</p>   |



## ENDESA was awarded the CRC Gold prize for the best E-commerce customer strategy

ENDESA was awarded the CRC Gold prize for the best E-commerce strategy. This was the first edition where this category was awarded one of these prestigious prizes granted over the past 18 years by the Spanish Association of Experts in Customer Relations (AEERC), with the cooperation of the International Faculty for Executives (Ifaes) and the methodology of the IZO customer experience consultancy.

ENDESA's innovative strategy of digital sales of electricity, gas and maintenance services – denominated On-site Technical Services – is based on the Digital Sales Acceleration programme. This programme is part of an ambitious Company Digital Transformation Plan, thanks to which digital sales have tripled over the past 3 years.

This sales strategy is complemented by ONE, the first 100% digital energy rate. Since the launching of ONE, eighteen months ago, over 150,00 customers have opted for this contractual arrangement.

ENDESA was also a runner-up for CRC Gold in the category of best customer service on the Online channel.



## 2.4. Digitalisation of our people

ENDESA believes that the digital transformation of a company represents a real strategic challenge and a change of culture, whose pillar should rest on the commitment and talent of the people forming the same.

For this reason, ENDESA has a Digital Transformation plan, included in the Be Digital approach, by which it intends to promote an internal digital culture in order to successfully face the challenges represented by digitalisation.

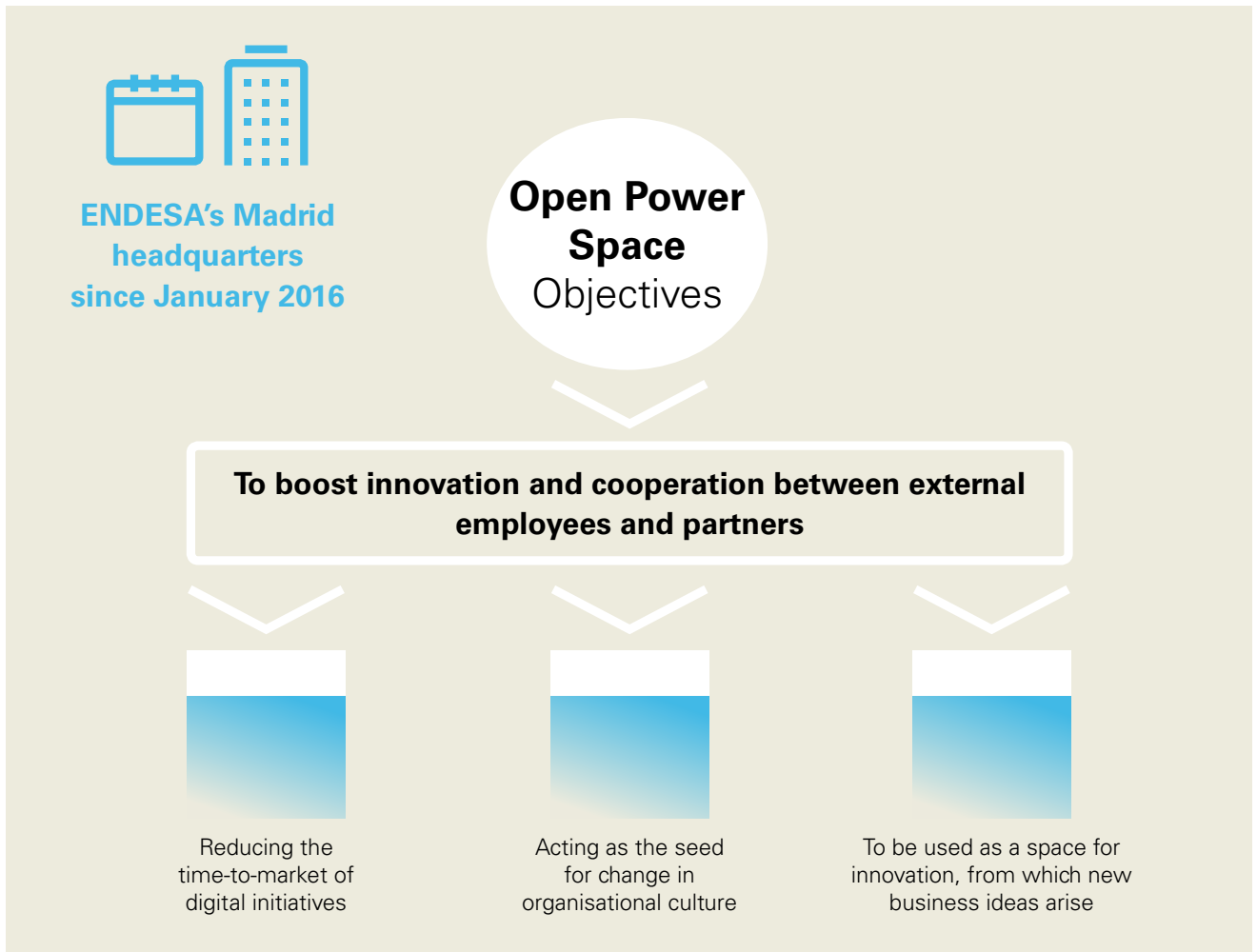
The main activities initiated in 2016 to encourage the development of a digital culture at ENDESA are classified into two fields: the development of skills and the work environment.

### 2.4.1. Work environment

#### The new *Open Power Space*

Under the Open Power framework, in 2016 ENDESA launched an innovative coworking space in Madrid, the ENDESA Open Power Space. This space consists of a nucleus for collaborative work designed to promote cooperation and creative processes, to generate ideas that lead to the creation of a new, more efficient and sustainable energy model.

The Open Power Space was devised to be a space oriented toward the boosting of the Company's cultural transformation by means of innovative projects, with special emphasis on the digitalisation of the Company's activities. With an open design, no offices or allotted spaces, the OPS seeks to boost cooperation, creativity and the use of new work methodologies, and to encourage cooperation between ENDESA's personnel and other external collaborators.



## The new Tech Bar

In December 2016, at its headquarters in Madrid, ENDESA opened a new area to support employees in their daily use of technology, with a better user experience in new, open, friendly surroundings, in line with the current way of consuming technology.

The digital transformation in which ENDESA is immersed, in addition to a change in processes, requires new work routines for the employees. The aim of the Tech Bar is to be a hub for the dissemination of these new working methods, by means of workshops, demonstrations and discussions by which we explain how to maximise the programmes used by employees in their daily activity.

### Enel's first Tech Bar opens its doors. A place where reality meets technology

Come to Enel's Tech Bar to discover "One Click", the new Global ICT Services Model focused on your requirements. Find useful information on how to work collaboratively and make the most of the devices and accessories available. A meeting point where you will find the answers to your questions.

#### Tech Bar. Your date with technology



## 2.4.2. Development of digital skills

The main projects performed in the field of the development of digital skills in 2016 were:

### > Business management digitalisation programme.

Focused on the training of the people making up the sales force, the aim of the programme is to facilitate the use of the new applications that are being incorporated into the marketing business, such as the implementation of an innovative tool for business management.

### > Are you digital?

This is a global pilot project by the Enel Group, which commenced at the close of 2015, in cooperation with the Polytechnic University of Milan. This project seeks to discover the degree of digitalisation of the people working in the Company, and to propose activities to increase it.

ENDESA's employees took part, during the first quarter of 2016, in a pilot study consisting of two questionnaires, to discover their digital abilities and knowledge. Of a total of over 2,000 people invited, nearly 50% took part.

After analysing the results, a number of people were identified who were invited to participate in the *Hack-day*, held in March 2016. In a digital, innovative and co-operative atmosphere, the employees were given the challenge of creating a tool to solve one of the following subjects: *Smart Working 4 Enel's Employees*, *Transforming Energy Use* and *Consumer Daily Life Utilities*. Due to the success of the study, this project is being extended throughout the Company.

### > Reverse Mentoring

In this project, derived from the "Are you digital?" project, the people with digital skills acquire a fundamental significance, as they will help the seniors (usually with

greater work experience) to become acquainted with the new technologies.

### > e-Talent training programme

As an innovative company focused on increasing its digital skills, ENDESA has created the e-talent training programme, with the motto "turn on your digital power". Its aim is to provide to a large group of employees with the necessary tools to introduce them to the current digital environment, to create awareness of the current trends (and their impact on the electricity sector and on consumers) and of the most innovative technologies.

The programme consists of the following stages:

#### > Video pills

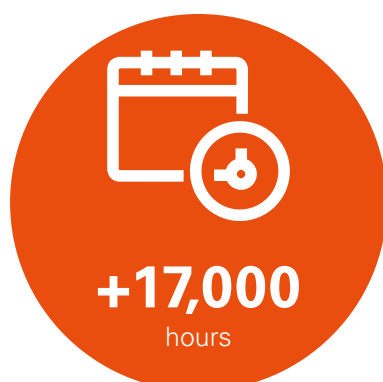
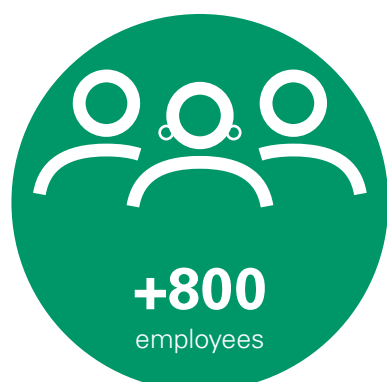
In order to inspire employees, experts in innovation recorded a number of audiovisual pills lasting from 2 to 5 minutes each, on various current subjects related to the digital world. By means of these videos, the participants have the opportunity to understand the new business paradigm and the role played therein by digitalisation.

#### > Digital Inspiration

This is a training block designed to establish the basis for the digital transformation of the talent existing in our employees. It consists of 3 in-person classes where the digital ecosystem, the hyperconnected user and digital talent are discussed, and a series of online training sessions on the future of mobility, collaborative economy and cybersecurity.

#### > "Viralisation" programme

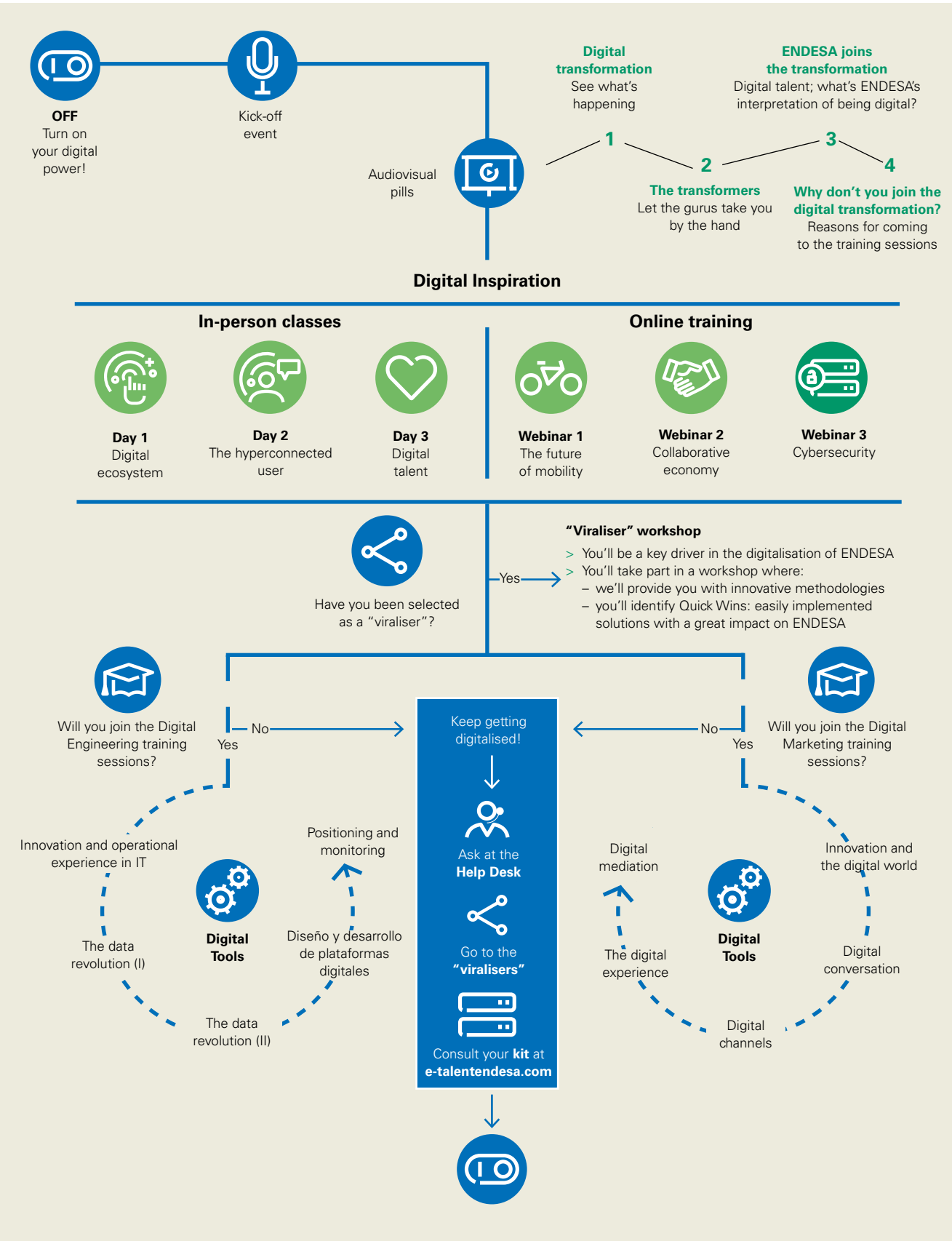
The next stage is a "viralisation" programme whose aim is to spread digitalisation among other colleagues via those participating in e-talent. This means that the latter must motivate the former to likewise become digital professionals. Those chosen to be "viralisers" must



lead the remainder of the employees in the use of new digital tools and in the learning of basic digital skills, and actively disseminate all the innovations regarding the trends of the digital world and the Company's commitment to its transformation process.

> Digital Tools

Finally, the “viralisers” access one of these two modules: Digital Development or Digital Marketing, and receive 5 training sessions, all related to the world of digitalisation.



During 2016, 831 employees took part, and via the challenges undertaken by the participants themselves during the “virtualisation” process, had an impact on 15% of the workforce. This digital transformation programme will continue to be operated in 2017, and new initiatives will be developed.

## 2.5. Cybersecurity

G4-DMA Customer privacy

### Management and furtherance of cybersecurity

Among ENDESA's goals is the construction of the Company's digital future; for this reason, cybersecurity and data protection are essential. This is why ENDESA must be prepared against new threats, to defend its critical traditional business systems, such as the distribution grids and the generation facilities, the details of our customers and the new digital platforms under development by the Company as part of its digital transformation process.

To achieve this, the Enel Group has a cybersecurity procedure and management model that encompasses all the companies of the Enel Group, including ENDESA, sponsored by Top Management and involving all the corporate business areas, and the area responsible for managing the computer systems. The Enel Group also has a Cybersecurity Unit which notifies the Chief Information Officer directly, in order to expedite the decision-making process in a context where the response time is fundamental.

This model is based on the identification, prioritisation and quantification of the existing security risks, in order to adopt

security measures for their minimisation and mitigation. ENDESA therefore identifies the existing processes, the information systems and the assets requiring said risk analysis. On this basis, the appropriate mitigation activities are established in accordance with the type of risk.

When any type of risk or incident is detected concerning the security of information, this is analysed and classified according to its significance. This information is stored in a database for its subsequent analysis, thus to improve the efficiency and effectiveness of the processes. In the event that the incident should generate a situation of crisis that might affect business continuity, the Company's profitability, its reputation or any of its stakeholders, ENDESA will immediately take the necessary action in accordance with the existing policies on crisis management and security emergencies.

This management model also includes the Company's business partners and suppliers, in order to identify possible risks that might impact ENDESA's activity.

On the other hand, in 2016 ENDESA carried out an awareness campaign for its employees in order to create a culture on cybersecurity. This campaign covered 4 aspects: security in the use of Internet and Internet connections, the protection of personal and professional information, the use of computer systems in the family environment, and the use of mobile devices for teleworking.

With the aim of continuing to move forward in the management of cybersecurity, ENDESA has established the following goals in its 2017-2019 ENDESA Sustainability Plan:

- > The establishment and accreditation of a Computer Emergency Response Team (CERT) in 2017.
- > To achieve the protection of 100% of the Internet applications by cybersecurity systems in 2019.
- > The performance of over 15 cybersecurity awareness activities per year over the 2017-2019 period.

## 3. Sustainable Mobility

Mobility has a considerable influence on the framework of Sustainable Development due to its associated environmental pressure and social and economic effects, as well as its inter-relationship with other sectors. The continued growth experienced by the transport sector over the past years and its foreseeable increase makes the challenge of achieving a more sustainable model a strategic priority at a local, national, European and worldwide level.

This priority is even more evident in urban environments, where the private vehicle (mainly internal-combustion powered) is the most widely-used means of transport by the residents, in spite of the presence of an extensive public transport service.

Due to the impact caused by internal combustion-powered vehicles on the quality of the air, in large cities measures are being adopted, such as restricting access to the city centre by internal combustion-powered vehicles or the promotion of vehicles using alternative fuels, principally electricity, with aid schemes for the purchase of the same.

**In most cities, the main cause of atmospheric pollution is wheeled traffic**

In this regard, modern societies demand high, varied mobility, which requires a complex transport system adapted to social needs, that can guarantee the movement of people and goods in a safe, economically efficient way. We must therefore move toward a low carbon-emission economic model; to achieve this, it is essential to develop efficient, flexible transport systems that provide smart, sustainable mobility patterns, thus

improving the quality of life of people and protecting the environment.

Therefore, the process necessary to make possible this change toward new sustainable mobility habits includes the creation of awareness among the residents and the promoting of solutions, electric transport being a key item among these, for an integral, sustainable, urban mobility system.

ENDESA has launched a series of projects covering different fields, from technological to social fields, promoting electric mobility as one of the main drivers toward a new, zero-emission energy model, responding to the new requirements and expectations demanded by society.

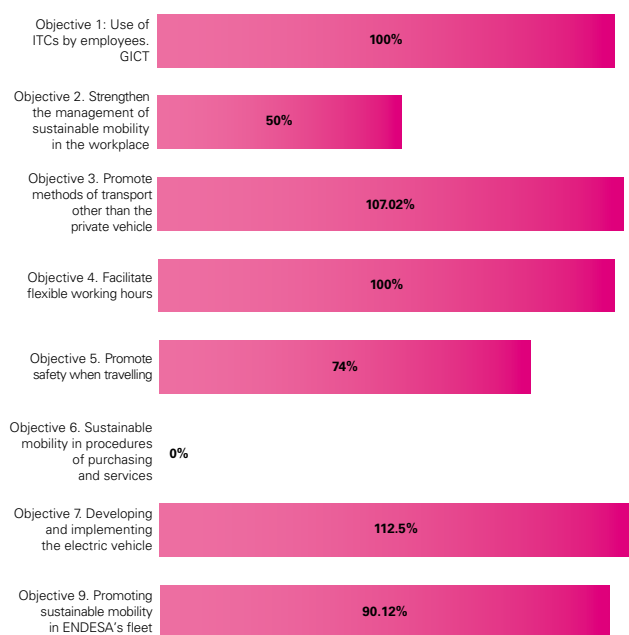
### 3.1. Sustainable, Safe Mobility Plan

ENDESA is aware that it can play a key role in this great challenge from society, and therefore it has been a pioneer in undertaking an integral approach to mobility via its 2014-2016 Sustainable, Safe Mobility Plan.

This Plan came into being as an instrument for the planning of excellence in the management of mobility at ENDESA, seeking the goal of facilitating the attainment of the potential detected, and the integration of all the mobility activities being developed in the different areas and business units, to further a more sustainable mobility.



## Progress of the Sustainable, Safe Mobility Plan in 2016



Thus, the plan was oriented toward favouring the changes necessary in the current mobility model, contributing to the struggle against climate change, improving the quality of life of people by improving economic efficiency in the management of employee mobility. To this end, the plan included measures directed toward different stakeholder groups (employees, customers, collaborators and society in general) in two main dimensions: encouraging a modal shift in the use of transport and promoting the electrification of transport.

In 2016, the last year of execution of the plan, a global compliance of 79.2% was achieved via the performance of over 19 activities. The global achievement of the Plan throughout its execution, from 2014 to 2016, was 77%.

During 2017, ENDESA will embark on a process of strategic reflection in order to design a new plan based on the achievements and opportunities for improvement identified in the 2014-2016 plan.

## 3.2. ENDESA's commitment to electric mobility

ENDESA, in its commitment to the struggle against climate change and to the furtherance of a more sustainable mobility, is committed to the electric vehicle as a key tool.

To this end, ENDESA carries out a number of initiatives to boost the development of electric mobility in 3 complementary directions: promotion and dissemination, technological development and commercial offering.

### 3.2.1. The Mobility Plan for Employees

ENDESA, in line with its strategic standpoint, where innovation and sustainability are fundamental focal points, wishes to involve its employees by offering specific solutions, thus providing an opportunity to take specific steps to favour a change of conduct, in favour of a more sustainable energy culture.

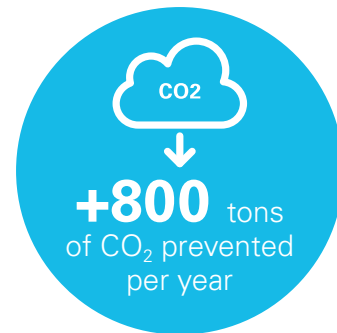
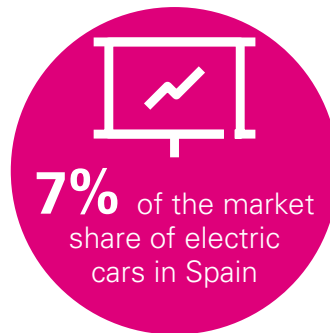
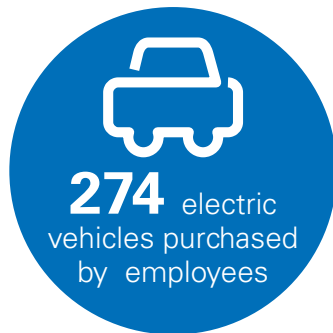
As part of the Sustainable, Safe Mobility Plan, on 31st March 2016 ENDESA launched the second edition of the Employee Electric Mobility Plan in order that new employees might decide to test the advantages of the electric vehicle, in order to reduce the pollutant, greenhouse gas emissions caused mainly during their journey to work.

This new Plan constructed a value proposition for the employee comprised of the following elements:

- > 100% electric cars.
- > Preferential conditions for ENDESA employees provided by the main manufacturers of electric vehicles and leasing companies.
- > A comprehensive leasing offer for private individuals (vehicles, insurance and maintenance) enabling access to an electric car for 24 months by monthly instalments, with no long-term obligations.



## Impact of the Employee Electric Mobility Plan in 2015 and 2016



- > Additional benefits, such as emergency recharges and preferential access to a pool of parking spaces reserved for electric vehicles at the offices where this is possible.
- > Offers for the installation of a domestic recharge point in the home.
- > An economic incentive to contribute to the purchase or leasing of the electric vehicle in exchange for the employee's cooperation in aspects related to the dissemination and image of the project.

Finally, on 31st December 2016 the project closed with 116 electric vehicles purchased by company employees. These 116 vehicles represent 5.2% of the market share of electric cars in 2016, and will prevent the emission of over 350 tons of CO<sub>2</sub> in Spain per year.

The aggregate results of the 2015 and 2016 Plans represent a total of 274 electric cars among ENDESA's employees, representing on average 7% of the total of the market share over these two years. These 274 electric cars, when travelling, will not only prevent the emission of 822 tons of CO<sub>2</sub>, but at the same time will also contribute to reducing the emission of NO<sub>x</sub> and other pollutants that impact people's health, especially people who live in cities.

By means of this initiative, ENDESA's employees have become ambassadors of the mobility of the future and a referent for society, contributing to the furtherance of electric mobility and to the change toward sustainable consumption habits. The traffic restrictions against polluting cars seen recently in cities such as Madrid bear witness to the need to implement sustainable mobility policies, among

which the electrification of transport is revealed to be a key option to achieve this goal.

Due to the success of the 2015 and 2016 editions, and in order to continue to promote the electrification of demand and responsible consumption, ENDESA is working on the launching of new initiatives in 2017.

ENDESA's objective is not only to promote these habits concerning mobility among its employees, but via these, to launch a message to society and to achieve an ever greater penetration of electric vehicles in cities, making this technology available to other citizens and favouring an improvement in air quality in cities, and its corresponding impact on people's health.

ENDESA backs electric mobility as the mobility of the future, clean and non-pollutant, and which is already a reality.

During 2016, the Employee Electric Mobility Plan received several awards and distinctions in the media related to the world of electric mobility, and presentations at congresses and events. Among these, the following are of particular note:

|   |   |  |   |
|---|---|--|---|
|  <p><b>Abril de 2016</b></p> |  <p><b>Abril de 2016</b></p>       |  <p><b>October de 2016</b></p> |  <p><b>December de 2016</b></p>  |
| <p>Award for one of the <b>"100 Best Ideas"</b> by the journal <b>"Actualidad Económica"</b>.</p>             | <p>Paper on the Employee Electric Mobility Plan, published at the <b>II Smart City Congress</b> held in Madrid.</p> | <p>Presentation of the Employee Electric Mobility Plan at the <b>GreenCities Forum</b> in Malaga.</p>            | <p>Recognised as a <b>CLIMATE PROJECT</b> entitled to a grant for up to 3,528 tons of CO<sub>2</sub> at 9.7€/ton until 2023. <i>Secretariat, Carbon Fund for a Sustainable Economy.</i></p> |

### 3.2.2. Electric mobility policy for managers

ENDESA has launched a new plan for the electrification of the fleet of its managers' company cars. The aim is that in 4 years, 4 out of every 10 vehicles in this segment will be hybrids or 100% electric (13% of the total fleet, consisting of about 340 cars). The project forms a part of the 2nd employee electric mobility plan announced recently by the Company.

To encourage the managers to choose this type of model, the company will increase the amount they receive for leasing. Furthermore, the Company undertakes to increase the deployment of the recharge facility infrastructure at its offices.

In the cases where the choice continues to be a traditional internal combustion-powered vehicle, the company will reduce the emissions of this segment even below the stipulations of the European Directives.

The plan for the replacement of the managers' company car fleet by another which is less pollutant is another of ENDESA's measures to develop an energetically more sus-

tainable transport model and thus to improve the quality of life in cities, where 70% of the population will live in 2050 (currently 50%).

This is the Company's commitment to the electrification of demand as a path towards complying with the objectives of the Paris summit against climate change; within this strategy, electric mobility is one of the main focal points.

### 3.2.3. Sustainable management of ENDESA's fleet

Another of ENDESA's focal points to promote sustainable mobility is that related to the management of its own fleet. Therefore, during the past years, ENDESA has implemented measures toward the reduction of its internal combustion-powered fleet and the inclusion of hybrid and electric vehicles.

Thus, in 2016 ENDESA had a total of 78 electric vehicles and 424 hybrids, which together represented almost 20% of the fleet.

Besides, in 2016 ENDESA set in motion a new e-carsharing service at some of its offices in different cities in Spain, by which employees have at their disposal electric vehicles for journeys required for their work. In 2016, almost 100,000 kilometres were covered by these vehicles, thus surpassing the 80,000-km target established in ENDESA's 2016-2019 Sustainability Plan.

In order to continue to move forward in this field, ENDESA's new 2017-2019 Sustainability Plan sets the following targets:

- > To triple the electric vehicle fleet in 2019, compared with that of 2016.
- > To reduce the internal combustion- powered fleet by 15% in 2019, compared with that of 2016.
- > To progressively increase the fleet of electric vehicles to reach a share of 10% of the fleet in 2019.
- > To travel over 500,000 km during the 2017-2019 period via the e-carsharing service.

These measures will enable a 10% reduction in CO<sub>2</sub> emissions in 2019, compared with those generated in 2016 in the management of ENDESA's fleet.

### 3.2.4. Innovation and technological development of electric mobility

In 2016, ENDESA took part in the development and execution of several parallel lines of work directed toward the technological development of electric mobility. In this way, ENDESA has continued to develop a new recharging technology adapted to the evolution of market standards. It has also continued to run demonstrational projects to enable greater awareness of both technological breakthroughs and patterns for their use in the real world.

**ENDESA, in cooperation with Enel, maintains its firm commitment to promoting electric mobility as a key tool in the struggle against climate change**

Enel has developed and installed a smart recharging infrastructure incorporating the smart meter technology developed by the group, currently used by millions of customers throughout Europe, among these ENDESA's customers. Apart from being able to provide a basic recharging service, the Enel Group's recharging stations are connected to the mobility management system (EMMS) in real time, providing value-added functions for the user.

Besides, ENDESA will benefit from in-house technological solutions for the fast charging of electric vehicles under development by the Enel Group via projects such as Crave, for the integration of batteries and renewable energies with fast charging.

#### **ZEM2ALL travels 4.6 million km and prevents the release of 330TN of CO<sub>2</sub> into the atmosphere**

The ZEM2ALL project (Zero Emission Mobility to All), the largest demonstrative electric mobility project in Spain, led by ENDESA and with the collaboration of Telefonica, Ayesa, Mitsubishi Corporation, Mitsubishi Heavy Industries and Hitachi, concluded with an event revealing the main conclusions reached during its course in Malaga, the city chosen for its performance due to its support for the development of the concept of smart cities, and due to its already having been the scenario of the Malaga SmartCity project, also led by ENDESA.

For 4 years, ZEM2ALL has acted as an authentic test for the functioning and public acceptance of electric mobility and has enabled assessment of the impact of pollutant emissions and power consumption within a community. After these years, 4.6 million kilometres have been travelled with zero emissions, over 100,000 recharges have been performed and the release of 330 t of CO<sub>2</sub> into the atmosphere has been prevented, a consumption equivalent to that of 50 homes over a year.



During this period, both demonstrations and promotions of electric vehicles have been prepared, as have innovative proposals for the development and management of the related infrastructure. Among the activities performed during this year, the following are of note:

> **Vehicle to Grid (V2G)**

The V2G (Vehicle 2 Grid) project came into being due to the need to incorporate an ever-larger fleet of electric vehicles into the grid, this being a challenge for said grid, but at the same time representing a great opportunity to improve the efficiency of the electrical system with improvements in the balance between the supply and demand of power. The project consists of the development of a two-way electric vehicle charger able to charge and discharge a vehicle, according to the requirements of the electricity system. ENDESA's V2G system enables the connection and flow of electricity between the grid and the vehicle, and is capable of efficiently managing the charging and discharging capability of the vehicle's electric battery connected to the grid. While the vehicle is connected to ENDESA's V2G system it can act as a generator, producing electricity for the home or supplying the grid.

During 2016, ENDESA has collaborated with the Enel Group in demonstrating the validity of this technology in international projects, constituting the first commercial hub in Denmark with the collaboration of Nissan, and working on tests and demonstrations in Germany or the United Kingdom.

> **Fasto V2G (Vehicle to Grid)**

The Fasto V2G charging system is a two-way charger, capable of charging and discharging a car at 10 kW, which enables the obtaining of great benefits from the different grid applications: Time Shift, Power Balancing and Power Quality Support.

Electric vehicle batteries will soon become a great challenge for our grids. However, the exploiting of EV storage may become a great opportunity to balance supply and demand, increasing the global efficiency of assets.

These characteristics may be achieved by means of smart, efficient, two-way systems thus able to manage charging and discharging, and the relationship between the vehicle battery management system and the grid.

> **Sunbatt**

Sunbatt runs a test platform to verify and estimate the viability of a second useful life for batteries used in electric vehicles and to determine for what type of use it would be viable.

> **CIRVE (Corredores Ibéricos de Carga Rápida)**

Cirve is a European project in which 8 institutions take part, with the target of deploying a grid of 40 rapid charge points in urban and suburban areas, and to boost the existence of this type of infrastructure in Spain.

ENDESA leads the activity corresponding to the access of electric vehicle users to the recharging grid.

> **ULTRAFAST**

The aim of Ultrafast is the development and installation of an ultra-rapid 400kW charger, to offer this service to all the heavy electric vehicles in Barcelona, to test the technology and operative systems associated with

## ENDESA and TMB presented the ultra-fast charge project for electric buses

ENDESA made a public presentation of the ultra-fast charge project for electric buses on which it is working in cooperation with Barcelona Metropolitan Transport (TMB). This system enables the battery of the bus to receive an 80% charge in only 5 minutes, thanks to a charger connected to a pantograph installed on the roof of the vehicle. Currently, this project is under construction in Cisell street in the quarter of Barcelona called Marina del Prat Vermell, in the Sants-Montjuïc district. The presentation was made within the framework of the celebration of the 12<sup>th</sup> Catalan Mobility Day, organised by the Association of Municipalities for Mobility and Urban Transport (AMTU), held in Mollet del Vallès.



the first two 18-metre buses operated by TMB (Barcelona Metropolitan Transport).

This system was launched in Barcelona in 2016, enabling an 80% recharge of the battery of the bus in only 5 minutes, thus making use of the time when stopped and without altering the timetables.

This initiative is part of the H2020 **ZeeUS** project (Zero Emission Urban System), developed within a European consortium to demonstrate the economic, environmental and social viability of electric urban buses.

<http://zeeus.eu/>

> **VICTORIA:**

The VICTORIA project, Vehicle Initiative Consortium for Transport Operation and Road Inductive Applications, commenced in September 2013 as part of the initiatives of the Living Lab of SmartCity Malaga, for the development of new models of electric mobility. This project has entailed the setting-up of the first public transport lane with electric charging by dynamic induction in Spain, by means of a technology that enables the electric vehicle to recharge its battery while in motion, with no need for any cables.

This pioneering initiative was launched in one of Malaga's municipal bus service routes, by a consortium of companies led by ENDESA, with the presence of research organisations and the support of top-notch international companies of the transport sector. The initiative was financed by the Andalusia 2013 FEDER Innterconecta Technology Fund of the Centre for the Development of Industrial Technology (CDTI) with funds from the European Union FEDER (European Regional Development Fund).

During 2016, different activities have been performed for improvements both at a laboratory level and on the infrastructure of the bus lane. The facilities featured on the bus were optimised to improve their efficiency, more versatile control processes for energy transfer were configured, and new envelopes have been implemented in the earthing system with the aid of advanced materials such as graphene, to address the coming final stages of testing and validation of the technical solutions developed therein.

> **PALOMA:**

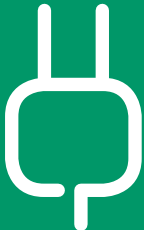


The fundamental goals of the PALOMA project (Prototype for Alternative Operation of Mobility Assets) are the integration of an innovative quick recharge system for electric buses and analysis of the impact on the electricity distribution grid entailed by the integration of these infrastructures.

This proposal is financed by the CDTI via the FEDER-INNTERCONECTA 2016 programme, and will be carried out in the city of Malaga, continuing with the VICTORIA line of work on electric passenger mobility.

Once again, an urban transport route in Malaga is the target for this operation, preparing a bus for the implementation of this system and installing an advanced recharging station in the city centre, including systems for photovoltaic solar generation, energy storage and control of the demand for power.

### 3.2.5. ENDESA's electric mobility tender

For both domestic and company use, ENDESA provides an integral electric mobility solution adapted to its customers' requirements. This solution includes the recharging infrastructure, the installation of the recharge point, the electricity supply and advice on the different power rates.

|   |   |   |
|---|---|---|
|  <p><b>Recharging and infrastructure</b></p>   |  <p><b>Installation of the recharge point</b></p>  |  <p><b>Electricity supply ENDESA's rates</b></p>                           |
| <p>ENDESA will provide you with a recharge point suited to your requirements, be it the model designed for a single-family home or for a community of residents, in compliance with current regulations.</p> <p>A 100% recharge of a vehicle is completed in about 6-12 hours, depending on the capacity of the vehicle's battery and the recharge power.</p> | <p>ENDESA's expert professionals will undertake the following operations:</p> <ul style="list-style-type: none"><li>– Studying the technical viability of the installation</li><li>– Analysing the location for the recharge point, and</li><li>– Installing the recharge point with the highest guarantee.</li></ul> | <p>ENDESA will provide you with the electricity supply contract and will also advise you on the power rates most suited to your consumption requirements.</p> |

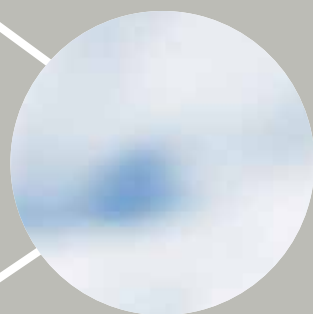
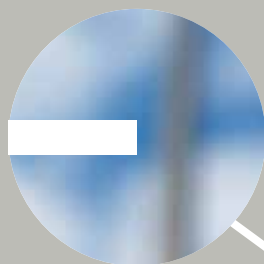
### ECAR (ENDESA's Self-Charge Club)

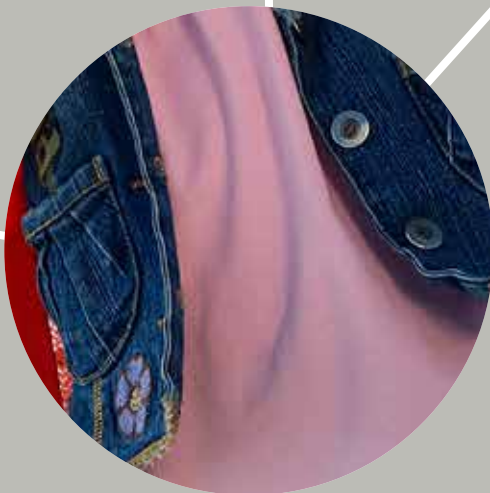
ECAR is a pioneering initiative in Spain which supports electric mobility as well as sustainable transport and tourism, providing a rapid recharge service throughout a network of recharge points for electric vehicles at the disposal of any user. It features a mobile app, via which the user can locate the recharge points, can be guided to these, can view the availability of the same, and recharge.

The project was launched in Mallorca with the installation of 6 rapid recharge points (50 kW, entailing an 80% recharge of a car battery in 20 minutes), at a distance of approximately 35 km from one to the next, to effectively cover the requirements of the entire island. Currently, the service is available both to customers belonging to the club and to occasional users of cars rented from companies belonging to the project. The power supplied by all of these recharge points is guaranteed to be 100% from renewable sources.

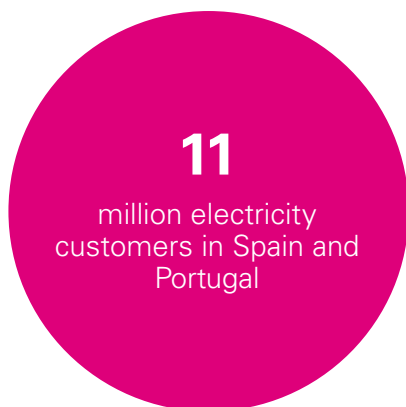








6\_Customer focus



## Compliance with the 2016-2019 Sustainability Plan

|                           | Objective  | 2016<br>(31/12) | 2016<br>Objective | Activities of note  |
|---------------------------|--|-----------------|-------------------|---|
| <br>sustainable<br>cities | Sale of Value-Added Products and Services promoting renewable energies and efficiency (profit, MME). | 17.3            | 12.4              | Energy efficiency projects at the port of Porto and at the Barcelona Aquarium.<br>New integral photovoltaic energy solution for domestic customers. |
|                           | Global satisfaction with the Company *.  | 7.2             | 6.9               | Commercial attention excellence plan.   |
|                           | Number of NGV service stations open to the public associated with fuel changes.                      | 6               | 2                 | Public compressed gas station in the metropolitan area of Paris.  |
|                           | Electricity losses in distribution (%).  | 8.4%            | 8.7%              | Project for the digitalisation of the low-, medium- and high-voltage electricity distribution grid.   |
|                           | Continuity of supply (Interruption time, own + programmed SAIDI, min).                               | 58              | 62.5              |   |
|                           | Recovery of Energy (GWh).  | 2,001           | 2,000             | Activities to fight electricity fraud.  |

\* Customer Satisfaction Index (includes the three segments).

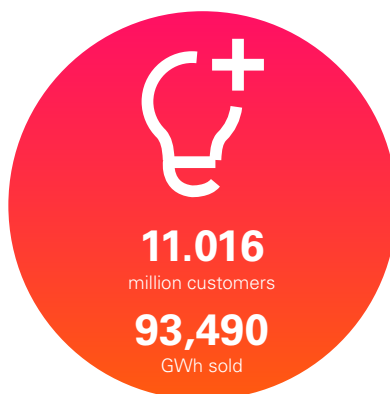
# 1. Quality and safety in electrical supply

EU3 EU10

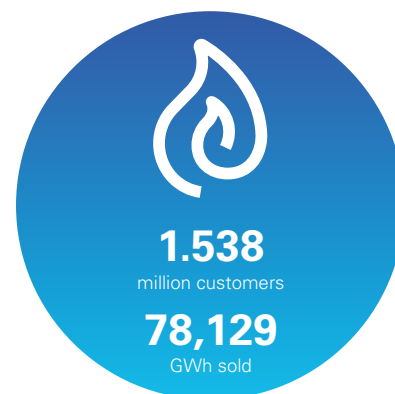
## Distribution of electricity



## Marketing of electricity



## Marketing of gas



## Electricity distribution

ENDESA considers it a priority to guarantee access to the electricity supply, and also its continuity, safety, efficiency and quality; for this reason the development of the necessary infrastructures to achieve this is essential, particularly in those areas where access to the same is more complicated.

The number of customers with contracts to access the Company's distribution grids increased by 0.12% in 2016, reaching a total of 12,314,392.

ENDESA distributes electricity in 27 Spanish provinces in ten autonomous communities: Catalonia, Andalusia, the Balearic Islands, the Canary Islands, Aragon, Extremadura, Castile and Leon, Navarre, the Valencian Community and Galicia, covering a total area of 194,687 km<sup>2</sup> and a population of almost 22 million inhabitants.

ENDESA supplied 102,901 GWh to the customers of its distribution grids in 2016, this being 1.6% more than in 2015.

The total power distributed via ENDESA's grids reached 115,602 GWh in 2016, measured at the power plant bus-bars, representing 44% of total Spanish demand. This last reached 265,317 GWh, according to the Spanish electricity system operator\*.

## Electricity sales

ENDESA had 11,016 electricity customers at the close of 2016, this representing a fall of 0.9% in comparison with 2015. The sale of electricity to this group of customers rose to a total of 93,490 GWh in 2016, representing a 0.6% increase in comparison with 2015. The number of customers in the liberalised market reached 5,423, entailing a 6.7% increase over the previous year, and now representing 49% of the total of customers.

## Evolution of ENDESA's electricity supply in the Spanish and Portuguese markets

|   | 2013   | 2014   | 2015   | 2016   | % variation<br>2016-2015 |
|---|--------|--------|--------|--------|--------------------------|
| Number of customers in the regulated market (thousands)   | 7,574  | 6,663  | 6,029  | 5,593  | -7.2                     |
| Number of customers in the liberalised market (thousands) | 3,906  | 4,543  | 5,083  | 5,423  | 6.7                      |
| Energy sales in the regulated market (GWh)                | 20,554 | 16,560 | 14,934 | 13,815 | -7.5                     |
| Energy sales in the liberalised market (GWh)              | 75,568 | 77,368 | 77,965 | 79,675 | 2.2                      |

\* Report by the Spanish Electricity Network (REE): «Preview of the Spanish Electrical System Report 2016».

# Gas sales

ENDESA's gas sales increased by 9.1% in comparison with 2016. The total number of gas customers also increased, by 5.3%, due to the increase in number of customers in the liberalised gas market, 8.8% in comparison with 2016.

## Evolution of ENDESA's gas supply in the Spanish and Portuguese markets

|   | 2013   | 2014   | 2015   | 2016   | % variation<br>2016-2015 |
|---|--------|--------|--------|--------|--------------------------|
| Number of customers in the regulated market (thousands)   | —      | 202    | 288    | 262    | -9                       |
| Number of customers in the liberalised market (thousands) | 1,214  | 1,004  | 1,173  | 1,276  | 8.8                      |
| Gas sales in the regulated market (GWh)                   | 1,169  | 964    | 1,039  | 1,464  | 40.9                     |
| Gas sales in the liberalised market (GWh)                 | 47,871 | 45,622 | 47,034 | 48,270 | 2.6                      |
| Gas sales in the international market (GWh)               | 9,463  | 9,493  | 14,926 | 19,474 | 30.5                     |
| Gas sales to wholesalers (GWh)                            | 13,213 | 18,264 | 8,588  | 8,921  | 3.9                      |

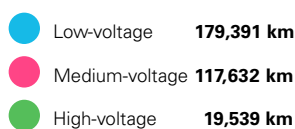
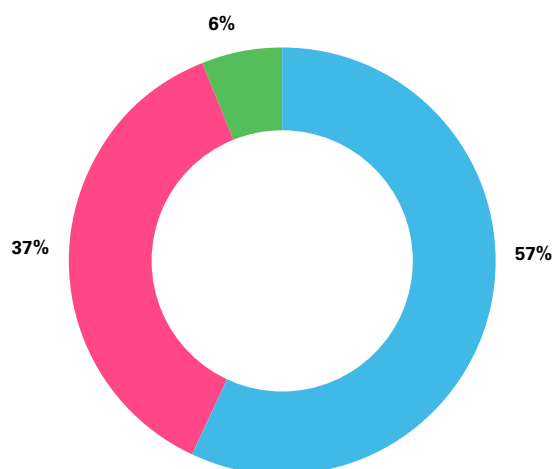
## 1.1. Development and improvement of distribution infrastructures

**EU4 EU10 G4-EUSS Availability and reliability**

To ensure the correct supply of power to its customers, ENDESA's Distribution Grid infrastructures are planned and operated so as to adapt continuously to the capacity required by its current customers, to the extensions of the grid requested by new customers and to the attention necessary for regulatory or legal activities, or those subject to agreements.

The length of ENDESA's distribution grid lines in Spain reached 316,562 km, of which 39.5% correspond to underground lines. The number of substations at the close of the year was 1,240.

Along with the development of these infrastructures, a large number of activities were performed to improve the quality of supply, such as maintenance work, the renovation of facilities, or an increase in the automation of the high- and medium-voltage grid. With regard to this last, the Company's Automation Plan for the Medium-Voltage Grid has continued to be implemented during 2016, with a total of 33,620 remotely-controlled elements.



## Electrical power distribution facilities in Spain and Portugal

|                                       | 2013    | 2014    | 2015    | 2016    | % variation<br>2016-2015 |
|---------------------------------------|---------|---------|---------|---------|--------------------------|
| Length of distribution grid lines     | 323,631 | 314,528 | 317,675 | 316,562 | -0.35%                   |
| High-voltage overhead lines (km)      | 18,821  | 18,849  | 18,728  | 18,774  | 0.25%                    |
| Underground high-voltage lines (km)   | 745     | 748     | 751     | 765     | 1.86%                    |
| Medium-voltage overhead lines (km)    | 77,597  | 77,554  | 77,567  | 77,190  | -0.49%                   |
| Underground medium-voltage lines (km) | 39,946  | 40,324  | 40,869  | 40,442  | -1.04%                   |
| Low-voltage overhead lines (km)       | 97,026  | 94,909  | 95,763  | 95,609  | -0.16%                   |
| Underground low-voltage lines (km)    | 89,498  | 82,145  | 83,997  | 83,782  | -0.26%                   |
| Substations (number)                  | 1,244   | 1,240   | 1,237   | 1,240   | 0.24%                    |
| Substations (MVA)                     | 84,890  | 85,783  | 85,854  | 86,324  | 0.55%                    |
| Transformer centres (number)          | 131,491 | 131,636 | 132,307 | 132,771 | 0.35%                    |

Other activities have concentrated on the reduction of the environmental impact of the grids and on the development of various specific plans agreed upon with the Authorities.

## 1.2. Continuity of supply

Continuity of supply in Spain is measured by two main indicators: the System Average Interruption Duration Index (SAIDI) and the Number of Equivalent Interruptions of the Power Supply (NIEPI), whose calculation procedure is governed by Royal Decree 1955/2000. The SAIDI and NIEPI levels are audited annually by an independent external company.

During 2016, the SAIDI in the markets supplied by ENDESA in Spain stood at 45 minutes, three minutes less than in 2015. Dependability of service has stood at 99.99% of hours throughout the year.

Likewise, the own+programmed SAIDI stood at 58 minutes, surpassing the target of 62.5 minutes established in ENDESA's 2016-2020 Sustainability Plan.

### EU28

In 2016, the NIEPI (Number of Equivalent Interruptions) level stood at 1.2, a one-tenth increase over last year's datum.

With regard to the continuity of supply indicators of the main autonomous communities served by ENDESA, the following are of note:

- > Mainland system: a significant improvement in SAIDI has been observed in all the communities, with values of 53 minutes in Andalusia, 53 minutes in Aragon, 40 minutes in Catalonia and 42 minutes in Extremadura. Among the improvements in comparison with 2015, of particular note is Extremadura with a 20% reduction, while Aragon improved by 13%, Catalonia by 9% and Andalusia by 5%.
- > Islands: In the case of the Canary Islands, the SAIDI is 27 minutes, a 9% improvement on 2015. Meanwhile, in the Balearic Islands it reached 39 minutes, being the only community to show an increase compared with the previous year, due to adverse weather conditions with storms during the last quarter of the year.

### EU29

### System Average Interruption Duration Index of the Installed Capacity (SAIDI) of ENDESA in Spain (minutes)

| Interruption time | 2013 | 2014 | 2015 | 2016 | Variation<br>2015-2016 |
|-------------------|------|------|------|------|------------------------|
| Andalusia         | 53   | 51   | 55   | 53   | -4%                    |
| Aragon            | 54   | 57   | 61   | 53   | -13%                   |
| Balearic Islands  | 31   | 32   | 36   | 39   | 8%                     |
| Canary Islands    | 31   | 32   | 30   | 27   | -9%                    |
| Catalonia         | 43   | 50   | 44   | 40   | -9%                    |
| Extremadura       | 56   | 48   | 53   | 42   | -20%                   |
| ENDESA            | 46   | 49   | 48   | 45   | -6%                    |

## 1.3. Safety in the facilities

### G4-DMA Customer health and safety EUSS

ENDESA complies with current legislation regarding personal safety, both of its workforce and of the general public, at all its facilities:

- > The high- and medium-voltage facilities undergo three-yearly inspections of their safety and suitability.
- > The facilities connected to the HV/HV and HV/MV distribution substations feature protection that isolates any fault that may occur.
- > The MV lines feature intermediate protection such as lightning conductors and surge arrestors, to prevent overvoltage surges caused by lightning strikes.
- > The MV/LV transformer centres and the LV lines feature similar safety measures.

- > Regarding the hook-ups to the grid supply, the connection facilities feature their corresponding protection, as required by current legislation.

With regard to the health of the population, ENDESA shares with the remainder of operators from the electricity sector and with society in general the concern about the possible effect that might be caused by the electromagnetic fields generated by its facilities. It therefore carries out various technical verifications, and where applicable, adaptation procedures, to ensure that their operation will not cause any impact on the public health.

### G4-PR1

At ENDESA, all the products and services provided to customers comply with current legislation, including that concerning health. Furthermore, ENDESA is continuously updated by means of the latest studies performed in this field, and plays an active role in the forums of the electricity sector to contribute our knowledge and initiatives (construction or operational techniques, etc.) in the field of the prevention of related risks to health.



## 2. Excellence in commercial attention

### 2.1. Commercial attention excellence plan

For ENDESA, excellence in commercial attention is the key value in the relationship with its customers, always seeking maximum efficiency in the functioning of its channels, tools and commercial attention platforms via a process of constant innovation and improvement.

ENDESA has a Commercial Attention Excellence Plan in order to provide its customers with the best possible attention and whose goal is to improve the main customer satisfaction indicators year after year.

During 2016, this plan focused its activities on the following aspects, among others:

- > Multi-lingual attention and preventive management of dissatisfaction via the telephone channel.
- > Evolution of the [www.endesaclientes.com](http://www.endesaclientes.com) website.
- > Implementation of improvements in the billing process.
- > Optimisation of the quality of information (updating and enrichment).

Among the most significant results of the Plan in 2016, the following are of note:

- > The 5% increase in mass market customer satisfaction with the helpline channel.
- > The 13% increase in the number of contracts formalised in the e-billing service.
- > The improvement of nearly 7 percentage points of mass market customers detecting no errors in their bills.
- > The 11 % reduction in average waiting time at offices and service points.

In order to ensure compliance with the improvements identified in the Plan, a monthly follow-up is performed on 20 key indicators, enabling verification of the impact on the improvement of ENDESA's commercial quality.

#### 2.1.1. In-person attention

ENDESA's in-person attention is organised according to the customer segment, to better adapt to the requirements of each customer:

- > **Large Customers and Companies:** ENDESA has a team of agents, organised by sector and territory, via which it seeks to achieve an in-depth knowledge of the customer's needs and to provide personalised, competitive solutions. The Company has approximately 350 personalised commercial agents distributed throughout our territory, and supplements its coverage by means of a helpline and Internet service.
- > **General Public:** ENDESA has 11 sales offices in Spain and 2 in Portugal, and 288 service points distributed throughout the country, aided by the Call Centre and ENDESA's virtual office ([www.endesaclientes.com](http://www.endesaclientes.com)).

| 2016 (Spain)          | Service points | Offices | Total      |
|-----------------------|----------------|---------|------------|
| Andalusia-Extremadura | 89             | 3       | <b>92</b>  |
| Aragon                | 24             | 1       | <b>25</b>  |
| Balearic Islands      | 18             | 1       | <b>19</b>  |
| Canary Islands        | 25             | 2       | <b>27</b>  |
| Catalonia             | 64             | 3       | <b>67</b>  |
| Our own territory     | 220            | 10      | <b>230</b> |
| Expansion             | 68             | 1       | <b>69</b>  |
| Portugal              | 0              | 2       | <b>2</b>   |
| ENDESA                | 288            | 13      | <b>301</b> |

## 2.1.2. The call centre

The ENDESA call centre managed more than 18 million calls in 2016. Approximately 45% of the calls attended were due to interactions related to billing and payment collection processes, 23% corresponded to contract procedures and 10% to the notification of faults in the supply network.

Likewise, 12% of the total call traffic was related to requests for new contracts, preserving the call centre as one of the Company's main channels.

The ENDESA model enhances resolutions in the *front office* and currently more than 80% of interactions are resolved in the first contact.


In this context, in 2016 an ambitious working program has been carried out which will allow taking the telephone channel to the **Smart Contact Centre** framework, through the following steps:

- > Know the composition of the customer portfolio and its service requirements.
- > Analyse the negative customer experiences with the telephone channel, from the triple standpoint of knowing what has happened, identifying the source cause and determining what could have been resolved in the *front office*.
- > Redesigning the service processes in order to minimise the aspects that may lead the customer to have a negative experience with the Company.
- > Guarantee that all customer groups fit into this Smart mode, so that any customer who decides that the telephone channel is his or her means of contact does not have to be put into a second channel to close their requirements.

In this framework, the telephone channel has advanced towards Smart management wherein the basis is learning from the negative experiences stated by the customer, which are redirected to the personalised customer service team (DOIT). What is learned in the DOIT is later tested in a laboratory that tests how to redirect those experiences

before they can arise and which provides guidelines to the *front office* on the best way to act.

During 2016, ENDESA has advanced from a general telephone channel towards a value-based service structure in the *front office*, which is complemented with a differential services structure. In this way, ENDESA has offered a preventive model to manage customer dissatisfaction, a service for non-Spanish speakers and an exclusive service for people with speaking and hearing difficulties.



6% improvement in the quality perceived by customers thanks to the implementation of the Smart Contact Centre strategy

This change in philosophy has enabled an improvement in the quality perceived by customers of 6%. Furthermore, this Smart Contact Centre strategy has allowed ENDESA to obtain the prestigious Contact Centre Platinum Award for best customer experience.

## 2.1.3. Online service



1,519,000 customers registered in [www.endesaclientes.com](http://www.endesaclientes.com), 12% more than in 2015

At the end of 2016, ENDESA's commercial website, [www.endesaclientes.com](http://www.endesaclientes.com), achieved 1,519,000 registered customers, 12% more than in 2015, with over 2,506,000 contracts and more than 162,000 new registered customers. These users have performed more than one and a half million interactions per month, with bill consultation being the operation most performed both on the website and in the App.

During 2016, electronic invoicing has also received a great boost. At year-end, it had 1,636,000 contracts in force with e-invoicing, 15% more than in 2015.

The mobile app has been updated offering customers new functionalities such as online payment, power change, hour curve and push notifications.

Since March 2013, more than 350,000 downloads have been made from ENDESA's app, 100,000 of those in 2016.

2016 saw the incorporation of new channels: WhatsApp (May 2016) and Facebook (August 2016) with more than 15,000 cases dealt with.

ENDESA is currently developing a digital transformation process where the customer is positioned as a fundamental element of that transformation. For more information, see the *Innovation and Digitisation* chapter of the report.

## 2.2. Resolution of complaints and new-contract applications

G4-PR8 G4-DMA Customer privacy

At ENDESA, complaints are managed centrally by the Complaints Unit (UAR) and via the people who work at the six existing Regional Complaints Units (UTR). Their main responsibilities consist of:

- > Detecting the causes that disrupt normal commercial activity.
- > Defining measures to be taken to resolve them, and specifying improvements in the management systems.
- > Seeking cost efficiency in complaint resolution.
- > Resolving complaints in the shortest possible time.

- > Acting as liaisons with public or private bodies in the defence of consumers.
- > Intervening in social networks when complaints are made in them.

In order to seek a standard of efficiency and minimise administrative sanctions, this year has seen the putting out to tender of contracts that manage the complaints from Official Bodies. We can highlight the implementation in ENDESA Distribución of the new CUATRO program to manage complaints. The volume of complaints logged during 2016 stayed constant with respect to 2015. The resolution level was 101% over generation, which meant a decrease in the gradient with respect to 2015 by a number close to 5,000 complaints. Regarding the business line, the weight of complaints in each line stayed constant, electricity being 75%, gas 14% and those related to marketing of value-added products and services by 11% of the total.

The average resolution time of complaints handled by salespeople is approximately 14 days, 69% more than 2015 due to the greater complexity of management types.

Finally, it should be highlighted that the complaints made in the last quarter of 2016 shall be for the first time reported to the CNMC (National Markets and Competition Commission) during the first fifteen days of the month of April 2017. With this information, the CNMC can compare with the other electricity and natural gas marketer and distributors that exceed a certain threshold.

### 2.2.1. ENDESA's Customer Ombudsman

G4-PR5 G4-DMA Labelling of products and services

ENDESA's Customer Ombudsman, the only one in the Spanish electricity market, works independently from the Company's management teams and was appointed to provide customers with an additional means of dialogue in connection with the services provided by ENDESA in the market, listening to in-house and external representatives and pro-

posing to the Company recommendations for ascertaining customers' needs and expectations and methods to improve service quality.

## The Customer Ombudsman is an independent office, the only one in the industry

José Luis Oller Ariño has been ENDESA's Customer Ombudsman since 2005.

## Complaints handled

G4-PR5

ENDESA's Customer Ombudsman received 1,408 complaints within the scope of his activity in 2016, 3% more than the same period of the previous year.

By type, most complaints concerned the commercial cycle of contracting, billing and collection. Of these, those related to sales and contracting have undergone greatest growth in 2015 and come to 32% of all cases.

Complaints concerning metering equipment and meter reading reduced slightly with respect to 2015, representing 21% of the complaints received. The same has occurred due to claims received for supply incidents, which involve 13% of cases.

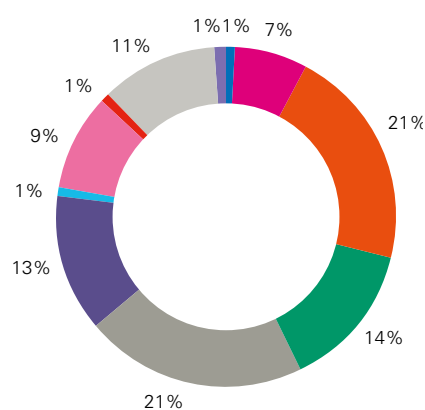
Most complaints received correspond to electricity supply and domestic customers.

76% of the complaints processed have been resolved with a total 52%, or partially 24% favourable result for the customer.

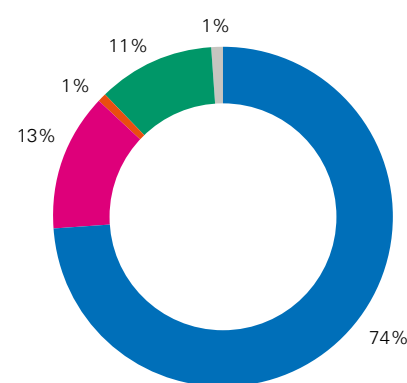
Most complaints have been resolved via mediation between the customers and ENDESA (37%) or via a personalised on-line management process (36%). Only in 24% of the cases has understanding not been possible between the customers and ENDESA and it has been necessary for the Ombudsman to issue a final decision.

Likewise, the average time to resolve complaints was reduced to 53 days.

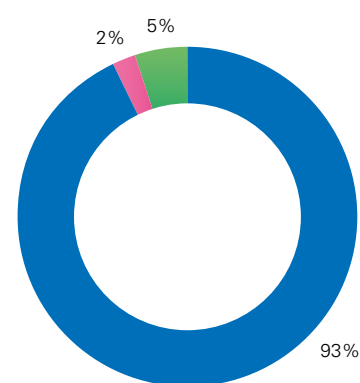
Type of complaints



Services



Type of customers



- Quality of supply
- Collection
- Contracts
- Metering equipment
- Billing
- Supply issues
- Infrastructure
- Readings
- New supplies
- Sales
- Service provision (STP)

- Electricity
- Gas
- Other services
- Gas services
- Electricity services

- Domestic
- Corporate
- Small business

## Perceived quality

G4-PR5

Overall customer satisfaction with ENDESA's Ombudsman increased slightly to 7.4. The large majority of customers stated that they were satisfied or very satisfied with the service.

The treatment and the information received from the Ombudsman were the most highly-valued aspects. Customers also appreciated the assurance transmitted by the Ombudsman and most stated that they would recommend the service to other customers.

## Other activities

In 2016, the Ombudsman issued 15 notifications of dysfunction with specific cases wherein the analysis of the Ombudsman Office has detected an error or dysfunction which it seeks to correct in relation to the Company's different procedures or actions.

The notifications issued have been particularly related to the contract, billing and complaint management due to supply issue processes. In all cases, the notifications have been accompanied with proposals for improvement of the affected processes.

Likewise, the Ombudsman issued a recommendation related to repairing errors that cause the disconnection or undue cancellation of supplies to customers.

## 2.3. Responsibility for informing customers about ENDESA's products and services

G4-PR6 G4-DMA Marketing communications

G4-DMA EUSS Provision of information

ENDESA's customers have the right to be informed about the characteristics of the products and services that they

consume. Therefore, the Company complies with regulatory requirements regarding the information provided to customers at all stages of the commercial cycle. These regulations cover the following issues:

- > When a supply contract is entered into or amended, the customer is informed of the different tariffs available, and the power rating most suited to his/her needs.
- > When power supplies are cut-off due to programmed work on the grid, customers and the general public are given sufficient notice. If a customer's supply is disconnected due to non-payment of bills, the customer must be informed beforehand, and this may only be done if the Company has proof of this situation.
- > There are also other circumstances under which time limits for providing information are prescribed, such as giving estimates for new supplies and dealing with customer complaints.

In the deregulated market, ENDESA complies strictly with the obligation to disclose the origin of the electricity billed.

ENDESA goes beyond the legal requirements, in order to achieve excellence in the provision of information to its customers.

Thus, in 2009 the Company created a business unit to manage relations with consumers' associations and public bodies, which has been consolidated since that time. This unit has held regular meetings and taken part in consumers' forums to communicate the measures taken by ENDESA with regard to its customers and to find out what their main concerns are, in order to be able to adopt the most appropriate measures as regards consumption.

G4-PR3

In the management of Large Customers there are 3 product categories subject to procedures regarding information and Labelling of products; electrical projects, efficiency and gas products and material supply. The current legislation is followed in their delivery and installation.

In Companies there are four product categories that comply with current legislation in terms of labelling, permits,

certificates, etc.; efficient equipment (lighting, batteries, etc.); projects and installations (electrical projects, gas projects...), maintenance and services (electrical maintenance, audits, management services...).

## 2.3.1. Eliminating access barriers to information about products and services

### G4-DMA Marketing communications

ENDESA strives to eliminate potential communication barriers concerning information on its products and services, whether they be physical, social or language-related.

The endesaclientes.com website has a large section to explain in detail the electricity and gas bills both in the free and regulated markets, item by item.

All commercial and informative communications sent by ENDESA to its customers in Spain, including bills and leaflets, are written in Spanish and Catalan.

The endesaclientes.com website, in addition to Spanish and Catalan, is also available in English. This is to meet the requirements of foreign customers. It has been calculated that 900,000 British citizens live temporarily or permanently in Spain, mainly on the Mediterranean coast and on the islands, as well as other nationalities which use English as a second language.

ENDESA can communicate in English via [www.endesa-clientes.com](http://www.endesa-clientes.com), the Apps and the online chatroom, email, twitter, Facebook and WhatsApp covering the information and customer service needs of these customers on the internet.

The website has resources and supports to guarantee access to the customer services of people with disability or the elderly.

The call centre has a customer service department in various languages, offering the possibility of speaking in Spanish, Catalan or English. It also has the Telesor application, to assist communication with people who have difficulties speaking.

ENDESA's sales offices and points-of-services are located at street level, with accesses adapted to people with reduced mobility.

### ENDESA implements a channel for people with disability

ENDESA becomes the first Company in implementing a channel aimed at people with hearing or speech disabilities, which allows customers to make any consultations on their bill, contract, or receive personalised information.

### 3. Access to electricity for vulnerable customers

#### G4-DMA EUSS Access to electricity

ENDESA is aware of the serious problem of fuel poverty in many Spanish homes, which has been particularly aggravated by the recent financial crisis. Precisely due to its commitment to society it understands that it should respond to this social problem within the framework of the energy sphere. The Company has been pioneering in signing agreements with local and regional governments and public bodies to avoid the supply disconnection of financially vulnerable families. In 2016, there are 166 agreements in force, and 39,699 contracts in force at year-end. More than 124,000 bills have been managed. Furthermore, thanks to the agreements reached throughout Spain, ENDESA can give coverage in this regard to more than 57% of households in 26 Spanish provinces (more than 10 million households).

On the other hand, ENDESA finances the Subsidised Rate, 25% discount of the total bill for those customers with power supplies less than 3 kW, pensioners, large families or with

all those members in working age in a situation of unemployment.

At 2016 year-end, 977,452 ENDESA customers used the Subsidised Rate, of which 76% are customers with contracted power less than 3 kW and the remainder are pensioners, large families or families with all members unemployed.

ENDESA is committed to avoiding electricity supply disconnection for vulnerable customers (certified by the corresponding Public Administration Social Services departments). This was stated during the presentation of their new 2017-2019 Strategic Plan to investors on 23 November 2016. This commitment forms part of its contribution to Sustainable Development Objectives, specifically SDO 7 of Access to energy.

In 2016, ENDESA has performed different actions aimed at providing access to electricity to vulnerable groups. For more information, see the chapter: *Responsible relationship with communities*.



## 4. Disconnections due to non-payment and reconnections in domestic customers

EU27

ENDESA has procedures in place to minimise the effects of disconnections due to non-payments of domestic customers, avoiding the disconnection of vulnerable customers.

Of the residential customers disconnected due to non-payment, 57% were disconnected less than 48 hours and 8% were disconnected for duration of between 48 hours and one week, 6.28% between one week and one month and 3.48% between one month and one year.

Likewise, 70% of the domestic customers disconnected have been reconnected in the following 24 hours, 4.34% between 24 hours and one week and only 0.33% more than of week after disconnection.

Until 2015, ENDESA's Sustainability Report included information relating to disconnections in the «General Public» sector as a whole. However, since 2016 ENDESA makes the distinction between domestic and non-domestic customers in this segment (corresponding in both cases to customers of ENDESA's reseller company: ENDESA Energy and ENDESA Energy S.XXI).

### Disconnections and reconnections due to non-payment in the residential sector, itemised by duration of the disconnection and regulatory regime (number)

|  | Spain<br>(domestic customer) | Spain<br>(general public) |
|--|------------------------------|---------------------------|
| Disconnected domestic customers                                | 160,819                      | 205,297                   |
| Domestic customers disconnected less than 48 hours             | 91,923                       | 115,455                   |
| Domestic customers disconnected between 48 hours and one week  | 13,112                       | 17,136                    |
| Domestic customers disconnected between one week and one month | 10,106                       | 13,045                    |
| Domestic customers disconnected between one month and one year | 5,593                        | 7,065                     |
| Domestic customers disconnected more than one year             | 0                            | 0                         |
| Domestic customers reconnected in the following 24 hours       | 113,091                      | 141,947                   |
| Domestic customers reconnected between 24 hours and one week   | 6,989                        | 9,831                     |
| Domestic customers reconnected after one week                  | 536                          | 731                       |

Domestic customer contract is that with CNAE 9810 9820 or 9700.

General public contract is a contract with metering point of type 4 or 5, basically LV less than 50 kW. (Includes domestic customer and small businesses).

# 5. ENDESA's energy solutions

G4-EN7

G4-DMA EUSS demand management

## 5.1. Value-added products and services (VAPS)

ENDESA is highly aware of the transformation occurring in the energy sector worldwide promoted, for other reasons, by the appearance of a new profile of more active customer and who demands greater decision-making capacity in managing his/her energy consumption. The technological advances, especially in the area of telecommunications and digitisation, are accelerating said transformation.

This new context allows the appearance of new business opportunities based on developing energy solutions that promote sustainability and allow diversifying the offer of products and services that ENDESA offers its customers.

ENDESA, as leading company in the energy sector in Spain, wants to position itself actively in this new context. Hence, it commits to innovation and the development of new products and services as engines for adaptation to the needs of its setting, both customer and regulatory, and enhance the use of efficient technologies to favour energy saving.

This is all reflected in ENDESA's strategic pillars to lead the energy transformation within the updating of its 2017-2019

Strategic Plan, where it refers to value-added products and services:

- > Maximise our customers receiving products and services in our portfolio and which allows them to have a more sustainable consumption.
- > Position ENDESA as benchmark in emerging trends such as e-mobility, storage, e home, etc.
- > Continue developing new communication channels with our customers that allows them to have a more sustainable customer experience in their relationship with energy.
- > Continue supporting our customers by investing in them in solutions with a high potential for saving, such as conversions of gas to other fuels, energy efficiency projects such as lighting, heat recovery, etc., and of course, renewable energies.

ENDESA has set the target of doubling the gross margin obtained by the sale of VAPS in 2019 with respect to 2016. To achieve this, the Company plans to invest more than €242 MM until 2019.

During 2016, ENDESA has continued to develop its portfolio of products and services (VAPS) and advance in new business models and sales channels. This allows it to market to its customers (households, SMEs and large companies) a series of products and services that aid their sustainability, giving them economic improvements, lower emissions and operating and/or energy efficiency improvements.



### 5.1.1. Actions on business customers (B2C approach, *Business to Business*)

G4-EN27

As regards to the development of new business models, in the field of medium and large-sized companies, ENDESA strengthens its position as ESE (Energy Services Company) and it proposes to its customers to invest in improving their installations and manage them integrally. In this way, the company perceives a saving in his energy bill through which it can recompense the improvements made by ENDESA in its installations.

Among the projects developed in 2016, we can highlight the public compressed gas station (CNG) for fast refuelling of vehicles in the metropolitan area of Paris (Ile de France) for the SIGEIF (Association of Town Councils for the Manage-





ment of Gas and Electricity of Ile-de-France). It is the largest public gas station in France, with 4,000 m<sup>2</sup> of surface area and 2 gas pumps, including the possibility of extending them to 4, to thus achieve the simultaneous fuelling of 4 trucks. This project is included in ENDESA's strategy of committing to gas as alternative fuel in heavy vehicles, with the aim of reducing pollution levels in urban areas. Natural gas for vehicles (NGV) is a fuel which, compared with oil, reduces particle emission by 95%, 100% of SO<sub>x</sub> emission and 65% of NO<sub>x</sub> emissions. BioNGV, methane of renewable origin, also allows reducing 90% reduction in CO<sub>2</sub> emissions. ENDESA will continue working to provide specific solutions to pollution problems with an ambitious plan to develop filling stations.



Another project to highlight is that of energy efficiency and saving that ENDESA has developed in the Barcelona Aquarium, where 3,200 light points have been replaced by LED technology that more accurately reproduce the marine environment. All of this has reduced light pollution, with energy savings of almost 70% (indirect decrease of some 1,200 tons/year of CO<sub>2</sub> into the atmosphere), achieving a more attractive setting and decreasing the possible stress and improvement of the animals' wellbeing.



Furthermore, ENDESA and Madrid City Council have signed a 100% green energy supply agreement to the city council for 2017, totally from renewable sources and high-efficiency cogeneration, estimating savings of 5% in the energy bill. The supply of renewable energy is one of the keys in ENDESA'S commitment to the environment and energy efficiency and it is aligned with the Company's sustainability policy.

## 70% saving in lighting consumption in Porto port thanks to ENDESA

ENDESA has signed an energy efficiency agreement with the Terminal de carga Geral y de Graneis de Leixões, one of the concession companies of Porto port. The measure has meant a considerable decrease in lighting energy consumption, which is an annual saving of 60,000 Euros, and a reduction of 227 tons of CO<sub>2</sub> per year, equivalent to 73,000 trees planted.





## ENDESA designs custom lighting for the Barcelona Aquarium to favour animal welfare

Barcelona Aquarium has new LED-type lighting designed expressly by ENDESA with the aim of aiding animal welfare, since it favours their visual capacities and decreases their possible stress. With this in mind, the Company has developed a Project adapted to the characteristics of each one of the 66 aquariums present, both for the fish and coral areas and the public spaces.

In addition to benefitting marine fauna, the new lighting technology allows considerably decreasing energy consumption, power and maintenance, contributing at the same time to energy saving and thus reducing the carbon footprint by 334,554 tons per year. Additionally, their long durability, established at 50,000 hours reduces waste generation.

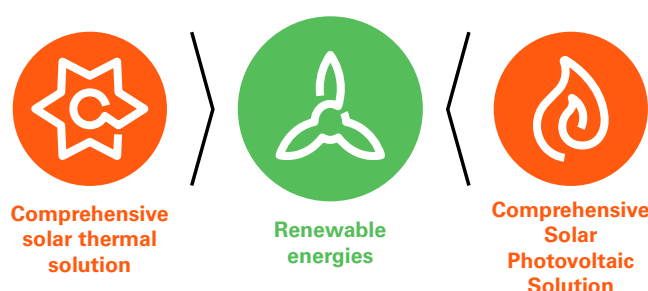


## 5.1.2. Actions on households and small businesses (B2C approach, *Business to Customer*)

### ENDESA's Comprehensive solutions

With respect to homes, during 2015 ENDESA has continued to develop its portfolio of Comprehensive Solutions

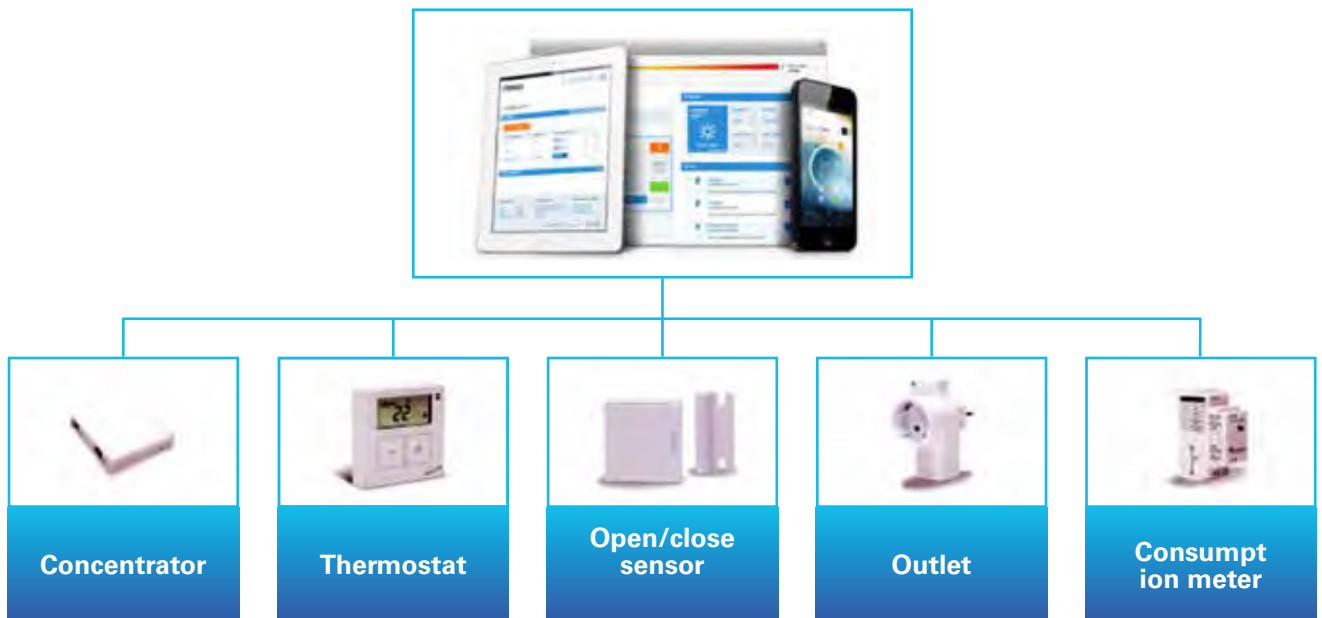
projects. Under this "Comprehensive Solution" concept ENDESA gives small consumers the possibility of paying for energy equipment for his/her home (boilers, heaters, water tanks, air conditioning apparatus) in convenient instalments, with an associated preventive and/or corrective maintenance service and with ENDESA's maximum guarantee during the term of the contract. In 2016, we can highlight the launch on the market of the Comprehensive Solar Photovoltaic Solution, whereby customers with detached homes can reduce costs in their bill by committing to clean and Solar Thermal energy, so that customers get hot water in their home with an important saving in their bill, whilst respecting the environment.



### IoT («Internet of Things»): ENDESA NEXO

As interesting innovations in this area and advancing in the ENDESA's continuous desire to give our customers tools that help them to understand and manage their consumptions, the NEXO project was launched in 2016. With this, customers become more proactive in managing their demand and that of their household. Nexo is developed through an ecosystem of devices that are managed through a web tool and application for mobile devices and allows service users to have a new way of relating to their home, remotely managing it and offering them comfort, peace of mind and control of their consumption over the internet. The functionalities that Nexo offers our customers include:

- > Control heating, always maintaining the ideal temperature in the home.
- > Program and control some electrical appliances remotely.



- > Make savings, making the electrical appliances operate when energy is lowest or programming it to switch off to avoid standby.
- > Know the electrical consumption of the home and its evolution over time.
- > Receive alerts if you want to switch something on at home and be able to switch it off remotely.

### 5.1.3. E-mobility

ENDESA has established the policy of electric vehicle development as one of the main channels for the fight

against climate change. Hence, it offers its customers a comprehensive commercial offer which includes the sale and installation of the charging infrastructure, plus electricity supply and advice on the rates best suited to consumption.

Likewise, ENDESA has created the first self-charging club (ECAR) a pioneering initiative in Spain to support e-mobility, facilitating the autonomy of electric vehicles. This project was launched in Majorca, with 6 fast charging points. In this way, the members of ecaR have a charging point close by to drive their electric vehicles with peace of mind.

For more information about ENDESA's commitment to e-mobility, see the chapter *Innovation and Digitisation*.

## 5.2. Raising customer awareness about the efficient use of energy

ENDESA continually performs communication actions to raise awareness about the efficient use of energy. The most noteworthy are

|   |   |   |   |   |
|---|---|---|---|---|
|  <p><b>Info energy</b></p>   |  <p><b>Diagnosis of energy efficiency</b></p>  |  <p><b>twenergy</b></p>  |  <p><b>advice and guides</b></p>  |  <p><b>forums and platforms</b></p>  |
| <p><b>It is a free information and advice service</b> so that customers can control and manage the energy consumption of their homes, based on a digital and easily customised service. Customers access detailed information which helps them understand their electricity consumption, comparing it with that of homes with a similar consumption pattern to theirs (in their district, municipality and province), and personalised advice and tools which inform them how to reduce the amount of their bills. In this way, they can be more aware of their energy consumption habits and discover how they can be increasingly efficient, thus having the possibility of reducing their electricity bills.</p> | <p>It is a <b>free online advice service</b> for small businesses. Through the Online Energy Efficiency Diagnosis website, a small business can assess its energy efficiency and receive measures of improvement to optimise consumption of its installation and, therefore, reduce its bill.</p> | <p>This has become the most important <b>online community</b> worldwide for sustainability and energy efficiency. Launched in 2009, it received approximately 3.9 million visits in 2015 (17% more than the previous year), it has over 54,000 registered website users and over 130,000 followers on social networks (mainly Facebook and Twitter). Twenergy is based on a website and its own profiles on the main social networks: Facebook, Twitter, YouTube, and LinkedIn.</p> | <p><b>Bill advice:</b> A space is reserved on the back of the bill to give customers advice on how to save energy and protect their installations.<br/><b>Savings advice:</b> <a href="http://www.endesaclientes.com">www.endesaclientes.com</a>. Specific communications in their first year of contract (leaflet, information, guides...)</p> | <p><b>Participation in forums and platforms domestically and internationally,</b> which are most relevant in raising awareness and disseminating information about energy efficiency. "The Companies for Energy Efficiency Platform", promoted by ENDESA in 2011, with the participation of front-line companies from a variety of sectors, aims to join forces to achieve greater energy efficiency by promoting more sustainable environmental behaviour. Hence, it promotes cooperation in various efficient lighting and air-conditioning initiatives, the use of alternative energy sources in production processes, the modernisation of equipment and process optimisation. In this way, it has achieved savings of 3.5 million tonnes of CO<sub>2</sub>, equivalent to the emissions of 750,000 average Spanish families each year.</p> |



## 6. Customer satisfaction



G4-DMA Labelling of products and services G4-PR5

The customer holds centre stage in ENDESA's business model, and for this reason, the measurement of Customer Experience is fundamental. Therefore, all the sections, products, channels, services and processes have suitable tools to perform this function.

G4-PR5

In order to measure customer satisfaction, over 120,000 customer interviews were conducted by telephone or online, covering over 4,000 indicators. In order to process this quantity of information in a BIG DATA environment, over 100 million customer touch points were processed.

The main methodology used in the measurement of customer satisfaction is telephone surveys. The total weight of online surveys continues to increase year-on-year, now being 27%.

In 2016, ENDESA continues as leading company in mass customer satisfaction in the electricity sector for the 7th year running, with 2% advantage over the competition.

### Customer satisfaction index (free electricity market, general public)

| 2014 | 2015 | 2016 |
|------|------|------|
| 6.61 | 6.42 | 6.91 |

In this way, ENDESA fulfils the objecting of achieving a score greater than 6.9, established in its 2016-2019 ENDESA Sustainability Plan.

Likewise, ENDESA's perception is consolidated as leading company in satisfaction with advice (+7% above the competition). In satisfaction with the Commercial Cycle (+4%), we can highlight the valuation with clarity of the bill (+10%) and the price (+4%), making ENDESA a benchmark in customer advice.

Regarding customer loyalty, satisfaction indicators improved, with customers scoring 4% better than the competition, respectively.

Among mass market customers in the gas sector, ENDESA was considered to be the leader in customer satisfaction for the third year running, with an advantage over the competition, having a score above 7.

ENDESA Gas established itself as the leader in billing (+4%), highlighting clarity of bills (+5% above the competition) and the percentage of customers rating the bill as useful (+5%). There is also an advantage in satisfaction with Advice +4% with respect to the competition.

The Company's non-mass customers continued to highly rate the service provided by their account managers, with scores close to 9 (+4% VS 2015).

The main significant improvements are found in aspects related to account manager proactivity, an attribute that has undergone the most positive evolution in recent years and which, in 2016, obtained a good score (+4% vs. 2015).

In this line, the Satisfaction with the Account Manager among ENDESA's large customers evolved +2%, with scores above 8. The item which has best evolved is Overall Proactivity Satisfaction, growing +3%.

## > Customer experience-Sale

The quality monitoring offered by the sales (Task Forces and Telesales) of both mass market and personalised revealed scores of 8.59 for the Task Forces channel and 8.41 for the Telesales channel. The satisfaction indicators of ENDESA's range of services, certified by the Spanish Standards Office (Aenor) reached scores over 8.

## > Customer experience – Service channels

The service level of the offline service channels in ENDESA is rated as good both in customers dealt with through channels and in person.

The telephone channel, which attends to the deregulated market customers, improved its satisfaction by 7% with respect to the previous year, due to better perception of the satisfaction with the number of attempts to contact (+5%), satisfaction with treatment (+6%) and satisfaction with the clarity of explanations (+6%).

In 2016, face-to-face channels were still those most highly valued in ENDESA. High points in satisfaction were given to the treatment received, the clarity of the explanations, order in the establishment and the waiting time in those customers who have requested the pre-arranged appointment service.

In 2016, the improvement in e-invoicing service (+7%) is remarkable with a +9% improvement in its punctuality.

## > Customer experience-Process

Customer Satisfaction increases in those customers who have subscribed to our online tariff via the website (+6%). The best performing indicators in 2016 are the information we give in the contract process (+3%) and the speed we have managed it with (+6%).

## > Studies on Value-added products and services

The satisfaction of customers with the offers of value-added products and services presented by ENDESA continues being good, both mass market and large cus-

tomers. The offers of gas and lighting stand out with scores over 8 and A scores in the case of assessing information and advice received.

As regards execution or completion of the works associated to VAPS, the satisfaction level of the service received is 8, highlighting the performance of the maintenance service in Transformation Centres.

## > Customer Ombudsman

The new personalised complaints management incorporated in 2015 obtains significant improvements both in the service sector and in the solution service.

In general, the customers score the service offered by the Office with an 8 when the Ombudsman mediates between ENDESA and the customer.

## > New projects

In 2016, ENDESA has started to digitise its information model using a tool called Quality Thermometer, which is going to allow the following:

- Real-time reporting with notifications of significant changes.
- Obtain personalised defined information for each user.
- Facilitate multi-device accessibility.
- Manage dissatisfaction (close the loop).

Dissatisfaction management has become one of the main levers for improvement in the Company, making it possible to learn to correct and improve processes, in addition to recontacting the customer to give him/her a satisfactory solution.

Overall, a thorough review of the open responses provided by those surveyed has been made, with new methodologies that have made it possible to more accurately know the customers' needs.

In the customer experience area, the new measurements are noteworthy:

- Sales through the Task Forces channel in the mass market in Portugal. The first results give an A score in sales.
- ENDESA Customers app, with good score in the ease of use and current image.
- Digital Service, the ENDESA web chat or the Facebook form, where customers can resolve their procedures or doubts and are scored above 8.
- New telephone service model for the mass market customers with greatest consumption, which has been scored as good by the customers.

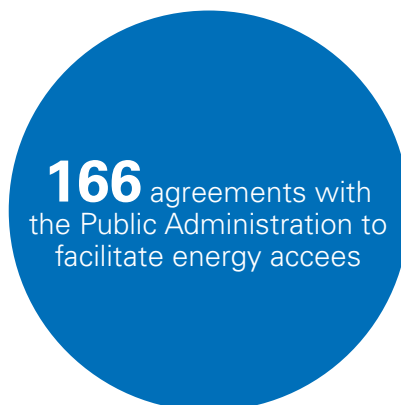
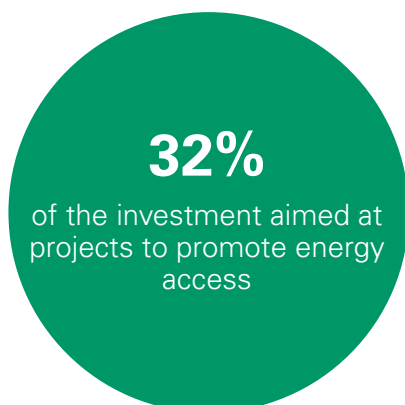
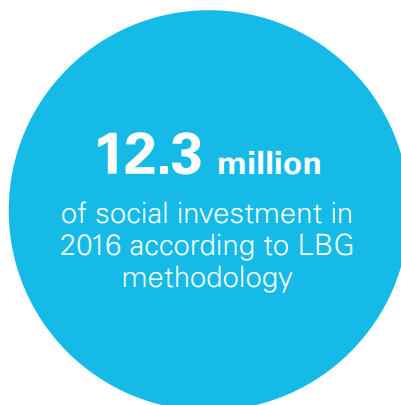
### Written complaints received by the regulated and deregulated market in Spain (thousands)

| 2014  | 2015  | 2016  | % variation<br>2016-2015 |
|-------|-------|-------|--------------------------|
| 25.05 | 29.83 | 28.71 | -3.75                    |






7\_Responsible relationship  
with the Communities



## Compliance with 2016-2019 Strategic Plan

|   | Objective   | 2016<br>(31/12) | 2016<br>Objective | Main actions   |
|---|---|-----------------|-------------------|--|
| <br>Responsible<br>relationship<br>with the<br>communities | Access to energy<br>(number of beneficiaries).          | 240,249         | 176,000           | 33 projects including: <ul style="list-style-type: none"> <li>– Agreements signed against energy poverty.</li> <li>– Energy volunteering program.</li> <li>– Professional training in the electric sector for people at risk of exclusion in Spain.</li> <li>– Promoting SMEs.</li> <li>– ENDESA Educa (ENDESA Educates)</li> </ul>  |
|   | Socioeconomic development<br>(number of beneficiaries). | 41,458          | 32,000            | 31 projects including: <ul style="list-style-type: none"> <li>– INCENSE: program to encourage innovation and employment specialising in hi-tech.</li> <li>– Transfiere Forum (Malaga). Professional and multi-sector gathering of Spanish innovation.</li> <li>– Junior enterprise.</li> <li>– Occupational training.</li> <li>– Assignment of use of company assets.</li> </ul> |
|   | Education (number of beneficiaries).                    | 31,616          | 4,000             | 136 projects including: <ul style="list-style-type: none"> <li>– Education projects.</li> <li>– Projects to support family and social services.</li> <li>– Projects to promote health and safety.</li> <li>– Projects to protect the environment and biodiversity</li> </ul>   |



# 1. ENDESA's commitment to the communities

G4-SO1 | G4-SO2 | G4-EC7

G4-DMA Indirect economic consequences

G4-DMA Local communities

ENDESA's commitment to the development of the communities where it operates is one of the cornerstones in the framework of ENDESA's 2016-2019 Sustainability Plan, following the strategy of integration of sustainability in the business process, through a «Creating Shared Value» (CSV) approach. This enables legitimising the business and reinforcing its sustainability, generating roots in the community and promoting social progress in the local environment where it operates. To do this, it is necessary to effectively and efficiently make use of and optimise the capabilities and skills the company has from an integrated standpoint and generate measurable benefits in society responding to current or future requirements.

This approach is a key tool, which is added to the other actions planned to give a response to the strategic priority of «responsible relationship with the communities» to tackle 3 identified critical factors:

- > Unfavourable public perception with respect to the energy sector, aggravated after the economic crisis, which demonstrates a greater distancing between electricity companies and the needs and requirements of the stakeholders and general society.
- > The role that ENDESA can play in current society, as key agent for its development, mainly at a local level in the business environment, with electricity as vital element to maintain social wellbeing.
- > A political and social context, with complex, interconnected global challenges, which makes it essential to innovate in the way of approaching and interacting with the customer/citizen to cover new society expectations and build links of trust which guarantee the sustainability of the business in the long-term.

Three areas of action have been identified to respond to these challenges:

- > Active listening and alliances with strategic partners: promoting active listening of social and institutional agents of reference in material affairs of the Company, establishing collaboration alliances and creation of shared value, which promote putting down local roots and social trust.
- > Implementation of sustainability initiatives and projects aligned with the materiality and commitments of the UN Sustainable Development Objectives assumed by Enel Group, incorporating the creating shared value within the Company's business strategy, with the following objectives:
  - Integrating the social demands of the business model with the application of methodology for creating shared value with the local communities where it operates.
  - Facilitating access to energy for people belonging to groups in a vulnerable situation.
  - Promoting education and social-economic development in the communities where we operate.
  - Promoting and coordinating the execution of projects relating to Sustainable Operating Efficiency in all territories and businesses.
  - Executing social and/or environmental actions that promote responsible management of assets and contribute to strengthening the Company's social commitment.
- > Measurement, dissemination and awareness raising: measure the impacts on the community and the returns for the Company of sustainability projects, improving the



quality of the information offered and communicating it suitably, thus approximating the company to citizens, both society and employees:

- Calibrating the response level of the projects to the needs of the main publics ENDESA is related to through measurement tools of achievements, impacts and returns in the sustainability projects, rendering an account systematically and transparent to society through appropriate communication.

ENDESA has provided 12.3 million Euros in the social development of the communities where it operates, of which 8.7 million are monetary contributions or in kind

## 2. Action under the Creating shared value approach

ENDESA is in the midst of the implementation process of the Creating shared value approach, as a sustainability integration tool in the business strategy and operations. To do this it applies a thorough and stringent methodology of accompanying the businesses in all phases of the value chain throughout the useful life of the assets, which allows incorporating the social and environmental variables in decision-making. The CSV Plans are obtained as an end product of this methodology. These are a set of action programs and initiatives aimed at improving the relationship with the local environment of the asset accompanied, and which require being constantly reviewed and updated, aligning Company objectives with its stakeholders' priorities. Progressive implementation of this methodology is being performed, and it is planned to gradually extend it to all Company areas, assets and operations in the coming years.

This perspective is integrated in the Sustainability Plan, both on a country and group level. Likewise, the actions and projects CSV (creating shared value), must be

linked to Enel's general strategy, to the UN Sustainable Development Objectives (SDO), to circular economy solutions and to the inclusive social approach, with the aim of providing a shared value for the communities and for the Company.

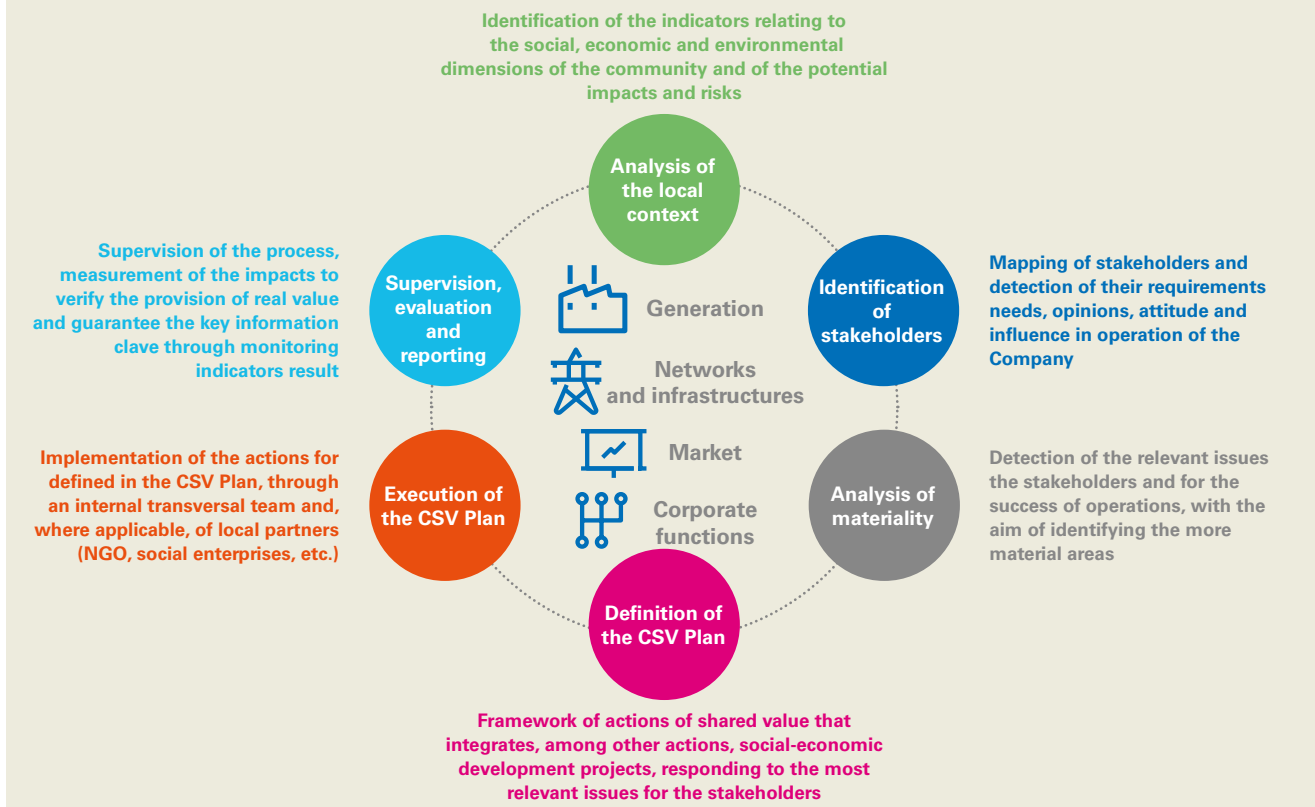
There are currently 13 CSV plans operating in ENDESA's business, which are in different development phases: 11 correspond to thermal generation installations, one to renewable generation installation and, finally, one to the infrastructure and networks area.

The 3 CSV plans that are most advanced correspond to those performed in the power stations in Candelaria in Tenerife, Las Salinas in Fuerteventura and Punta Grande in Lanzarote, accompanying their operation and maintenance activity.

Work is being done to achieve greater knowledge of the local environment of these 3 sites, from a social, economic and environmental standpoint, in addition to of its stakeholders, with the aim of defining action plans that allow a better relationship with the community and better integration with

## CSV - Creating shared value

### The way of integrating sustainability in the business



the local setting of these assets. To do this, contrast meeting have been held with the town councils, residents' associations and other local agents referring to the social-economic and political context they are currently in.

According to the relevant issues detected, actions have been defined to improve the community's knowledge of the business (*Open plant measures*), measures to facilitate access to energy and local social-economic development initiatives. Thus, for this first period, the following initiatives have been defined in each of the lines of action in the 3 power plants:

> **Open Plant.** Actions aimed at the opening-up of the plants for their better integration in the local communities, with measures aimed at disseminating knowledge of the sector and Company. Talks are being organised together with the town councils on the electricity system, optimising the energy bill and responsible consumption and efficiency recommendations. The power plants also offer the possibility of performing practical workshops in their facilities in order for vocational training students to perform work experience specialising in electrical engineering, such as that which has taken place in 2016

in Candelaria. Furthermore, for years now, visits have been organised to the power plant for different groups and education sessions have been performed in schools via the ENDESA Educa program, which has given workshops in 29 schools in the municipalities of Candelaria, Puerto del Rosario, Arrecife and Tegui, reaching more than 2,000 students.

> **Access to energy** to groups in a situation of energy poverty, since the Canary Islands is one of the provinces with greater indices of social exclusion and lower indices of family income. In this regard, programmes such as the Energy Volunteering program are being implemented. Thus, in Candelaria and Puerto del Rosario 35 volunteers from both power plants will attend to a total of 50 families in the two towns. Furthermore, training seminars are offered to Social Services and NGOs in bill optimisation and energy efficiency. All of this is a measure additional to the Non-disconnection of supply agreements for vulnerable homes that ENDESA has been signing with the different municipalities within the fuel poverty plan.



> **Social-economic development**, with participation in local development programs. Two initiatives are being worked on to promote employability of groups in a situation of vulnerability:

- the **«Actívate y empléate» (Get active and get a job) program** for unemployed people resident in the town of Puerto del Rosario, designed together with the town council and ENDESA. It aims to give training to improve employability for this group, combining job seeking strategies with the acquisition of generic

management skills, placing special emphasis on the characteristics of the population it is aimed at and the characteristics of the job market in Puerto del Rosario.

- It is participating in the **«Training Young people in Candelaria»** program for young people under the age of 30, designed together with the Red Cross and the Candelaria Town Council, aimed at training and achieving the official qualification of Trade Assistant, to cover the need detected by the Red Cross in Candelaria of developing this professional training to cover jobs in the region.

Another initiative under development is the **«Art with Energy»** program in Puerto del Rosario, a competition that the Town council has been holding since 2011 within the Urban Art week of the town. Cultural and artistic activities are organised during several weeks and, forming part of the Town Council program, there is a façade decoration contest. This has the intervention of professionals and amateurs and the participation of all the residents and visitors to the town. In this collaboration ENDESA offers 8 transformer stations and the wall of the Salinas power plants for them to be decorated with murals painted by local artists and schools. This aims to contribute to improving the appearance of the town's districts and sociocultural development.

# 3. Categorisation and detail of the sustainability projects

ENDESA's sustainability projects and initiatives are implemented in the different territories where the Company operates and by each of the Company's Business areas, together with its two foundations, the ENDESA Foundation and the Sevillana ENDESA Foundation. The management of these projects is coordinated by the Sustainability Department and aligned with the criteria, objectives and guidelines provided by the joint action framework at the level of Enel Group, in addition to the material issues in the social area that are required by our stakeholders in Iberia.

Since 2015, a joint action framework has been adopted in Enel Group for the management and monitoring of sustaina-

bility projects, with a common approach and categorisation, enabling the use of synergies between the different countries where the Group operates, the implementation of a common language used in management and the sharing of objectives to jointly face the challenges of the company in each territory.

As regards the new categorisation of projects implemented throughout the Enel Group, 3 project groups are established that have an impact on communities, as is a fourth group, concerning internal operating efficiency, which is beyond the scope of this chapter (for this reason, hereinafter the analysis will be centred on categories 1 to 3).

## Sustainability projects. Categorisation of the projects/initiatives

### 1 ACCESS TO ELECTRICITY

#### Energy projects

- Access to electricity for vulnerable homes.
- Training and education to promote employment and employability.
- Energy efficiency.
- Awareness-raising/knowledge/research in energy.

### 2 SOCIAL-ECONOMIC DEVELOPMENT

Projects promoting the economic development of communities by supporting local business activity, furthering shared value (see CSV, "Creation of Shared Value") and in line with the local materiality matrix.

### 3 SUPPORT FOR THE LOCAL COMMUNITY LOCAL

Activities to aid communities, unrelated to energy or economic development (mainly social activities and CSR):

- Protection of the environment and biodiversity.
- Education.
- Support for families and social services.
- Local initiatives and events.
- Promotion of culture, sports, health...

### 4 OPERATING EFFICIENCY THROUGH SUSTAINABILITY

Projects carried out at the work facilities of the Group and its business processes, or carried out by and for Enel's employees, promoting a sustainable way of life and work. These will be projects managed/monitored by the Sustainability team (**they are not ordinary business operations**).

#### Social Projects

#### Internal efficiency projects

This categorisation seeks improving project management to align them with the Group's materiality and priorities according to its commitments to the UN Sustainable Development Objectives (SDO), through their monitoring and tracking, in addition to the measurement and enhancing thereof.



The basic motivation that guides ENDESA's social contribution is:

- > Providing business activities with social value, by creating relationships of trust which, in the long term, generate support in communities and encourage social progress.
- > Supplementing the Company's function as a basic service provider, facilitating the access to electricity of the most susceptible groups.
- > Providing a response to the needs of the main stakeholder groups, on both a local and global level, with whom the Company interacts.

- > Enhancing, by means of its contribution, the generation of wealth and the progress of society.

For this reason, the shared-value social projects will be projects that:

- > Accompany business, generating wealth for the local community.
- > Respond to the material issues of the social sphere of our stakeholders (furtherance of employment, fuel poverty, training, biodiversity, etc.).
- > Concentrate particularly on susceptible groups (disadvantaged families, persons under vulnerable circumstances, childhood and youth, new entrepreneurs, etc.).

- > Are managed in cooperation with the social representatives of the communities participating in the project.
- > Have continuity in time and potential to replicate successful actions.
- > Provide benefits for society and returns for the company which are verifiable and measurable.
- > Are systematically, transparently reportable, and are appropriately transmitted to society.

The Iberian territorial divisions and their Sustainability Committees, as well as ENDESA's various business lines and its Foundations, have launched projects and initiatives in accordance with the above criteria, coordinated and monitored by the Sustainability Division, which in turn guarantees coherence of priorities throughout the Enel Group.

## 3.1. Access to energy projects

One of ENDESA's main approaches in social development is the development of projects in line with the company's core business, with initiatives to favour access to energy. This framework includes all the energy-related projects that minimise the economic barriers to susceptible groups, offering education and training in the field of energy, guaranteeing accessibility to technologies and infrastructure, and promoting energy efficiency.

This type of initiatives, furthermore, responds to ENDESA and our parent company, Enel Group's commitment to the UN Sustainable Development Objectives in section 7 of «Affordable and non-polluting energy».



Promotion of access to sustainable, affordable and modern energy benefitting  
**3 million people** until 2020

Commitment



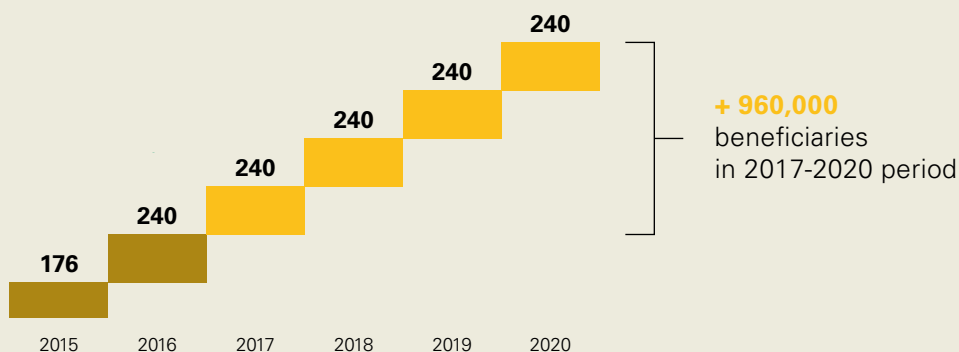
→ **+ 3 MM** (2015-2020)

Contribution



→ **+ 1,37 MM** (2015-2020)

No. beneficiaries in thousands





## 32% of ENDESA's social budget, according to the LBG methodology, has been invested in projects to facilitate energy access



In 2016, and according to LBG methodology, ENDESA has invested more than 5.2 million Euros in social projects in this area, with the management of 33 initiatives, which have benefitted more than 240,000 people. The most relevant can be highlighted:

- > **Agreements signed against fuel poverty.** ENDESA is aware of the serious problem of fuel poverty in many Spanish homes and has tackled a line of action that gives response to this social problem. Indeed, the Company has been pioneering in signing agreements with town councils, provincial councils, autonomous communities and public bodies to guarantee the supply to vulnerable families, suitably accredited by the social services and who are in a default situation. In 2016, the number of agreements in force has increased to 84%, going from 90 in 2015 to 166 in 2016. Thanks to this, around 39,699 contracts have benefitted from these actions, favourably managing more than 124,000 bills. Furthermore, thanks to the agreements reached throughout Spanish geography, ENDESA can cover in this regard more than 10 million homes from 26 Spanish provinces. ENDESA plans to reinforce and expand on this type of initiative.
- > **Professional training in the electrical sector for people at risk of exclusion in Spain.** The ENDESA Foundation manages projects whose aim is to improve the employability of young long-term unemployed people with limited means and at risk of social exclusion. The aim is to provide access to the job market, and consequently social integration, to young people and adults by means of the educational development of their personal and professional skills. This programme is run jointly with

a number of NGOs such as Caritas, the Padre Pulgar Association and Norte Joven, and also in cooperation with Public and Private Educational Institutions. The practical experience for training the students takes place at the company's own facilities (for example, the pupils at El Ferrol perform their practical experience at the As Pontes Thermal Production Facility) or with other contractors. This training was given in 8 Spanish cities in 2016 (Madrid, Huesca, Huelva, Tenerife, Ferrol, Ponferrada, Palma de Majorca and Tarragona), benefiting 177 unemployed people, of which, thanks to this training, 21% (37 young people) have found work. It plans to continue with this line of action, in a very serious unemployment situation in Spain.

- > **Energy volunteering.** The Energy Volunteering program is a social development program, started in 2015, in the field of energy, carried out jointly by ENDESA and ECODES (Ecology and Development Foundation) aimed at homes which are in a situation of fuel poverty, and with action on two levels: on the one hand, these families are given advice on how to optimise their electricity bill and reduce energy consumption and on the other, situations of risk in the electrical installations are identified, which are later corrected by certified installers. As a result of the actions in Barcelona and Zaragoza, interventions have been performed in 45 homes with the aid of 41 volunteers, and a total of 241 people have benefitted (both directly and indirectly) in both territories. There is an average saving potential (aggregate) of 23% in the bill (with a maximum of 55% in one of the homes), of which a large part is due to application of the subsidised rate and decrease in contracted power. Likewise, it is estimat-



## Most common defects in plugs



Dual mechanism, switch/plug, obsolete, without access, behind the headboard of the bed with unsuitable circuit shunts.



Obsolete plug behind bedside table, out of box, various circuit shunts connected without guarantee of connection with risk of electrical contact and fire.



Plug in bad condition, located in corner with difficult access in wall with a lot of damp.

ed that —after implementation of energy efficiency measures— it is possible to achieve an additional 13% saving, which makes a total of 36% saving per home. In financial terms, this is translated into an average saving of €131/per year per home.

After the results obtained in this first edition, ENDESA and the ENDESA Foundation are going to gradually scale the Energy Volunteering Program in the different territories of ENDESA. To do this, a new edition has been launched which, in addition to the two territories where it is present, (Barcelona and Zaragoza) 3 new destinations are added: Seville, Candelaria (Tenerife) and Puerto del Rosario (Fuerteventura).

> **Driving SMEs.** ENDESA has taken part in 2016 in the fifth edition of Driving SMEs, a project developed by 14 large companies that seeks to provide strategies and advice to small and medium-sized companies for their development. During 9 months, it has visited 12 Spanish cities, performing meetings with more than 3,000 managers. Through 12 micro-speeches, the large companies have provided their knowledge and recommendation in 4 basic pillars: finance, innovation, internationalisation and energy efficiency. The latter has been the cornerstone of the micro-speeches given by ENDESA. The SMEs have been able to see through practical cases that invest in more lighting systems can save up to 70% in the businesses, that each degree of temperature adjusted

in the air conditioning apparatus gives a 7% reduction in consumption, or that overhauling the cooling apparatus for other more efficient ones can give a saving up to 39% in the bill. Furthermore, and since 2015, ENDESA has awarded the «Sustainability and energy efficiency award» to the Participating company that most stands out in these areas.

Driving SMEs involves both the public and private sector, with the presence of companies of recognised experience in the domestic and international spheres of different economic sectors. This makes it possible to have a global project which offers the SMEs knowledge and practical and innovative solutions in the key areas of business.

> **ENDESA Educa (ENDESA Educates).** An educational initiative whose goal is to create a new social conscience based on sustainability and energy efficiency. To this end, it has a wide range of activities which it offers free of charge to schools, adapted to their different needs. It includes visits to electrical facilities, guided activities at ENDESA's Information Centres, workshops given at the schools themselves, and online activities via [www.ENDESAeducacom](http://www.ENDESAeducacom).

The goal of all of these is to encourage the efficient, rational use of energy, a commitment undertaken by ENDESA Educa. In 2016, more than 45,000 participants



from 605 educational centres have benefitted. There have been almost 300,000 participants at ENDESA Educa's classrooms over the past 9 years. The programme also organises visits to ENDESA's facilities to explain how electrical infrastructures work in a real context.

For more information: [www.ENDESAeducacion.com](http://www.ENDESAeducacion.com)

**300,000 participants in ENDESA Educa's classrooms, since it started 9 years ago**

- > **Twenergy.** A Spanish-language reference website on energy efficiency, promoting the responsible consumption of energy, providing users with solutions and tools to enable them to be more efficient in their energy consumption. It is also committed to giving a voice to profession-

als of energy efficiency via articles, digital meetings, and by supporting different industry initiatives.

In line with the commitment to promote environmentally friendly activities, Twenergy has developed the **«Zero Emissions Asia Challenge»** project within the 11<sup>th</sup> edition of its Solidary Project. In this project, Alicia Sornosa —Twenergy correspondent— has performed a charity route of more than 7,000 km throughout India, from Bombay to Delhi with the aim of publicising the charity projects promoted by two Spanish NGOs in Nepal.

During the more than 60 days of the route, Twenergy has driven a Crowdfunding raising more than €3,000 for those two NGOs. In its commitment to the environment Twenergy shall eliminate the environmental footprint of Alicia Sornosa's trip, by planting one tree for each benefactor of this crowdfunding. This has created a wood of more than 300 trees that are going to be planted in 2017 in an area razed by flames.

At the end of 2016, Twenergy has more than 53,000 registered users, more than 140,000 followers in social networks, with over 17 million visits, since it started in 2009.

**In 2016, Twenergy now has more than 52,000 registered users and more than 140,000 followers in social networks, with more than 17 million visits since it began in 2009**

For more information, more project examples are given in section 3.3.6. **Corporate Volunteering Projects.**

## 3.2. Projects for social-economic development of communities

ENDESA is committed to the social-economic development of the communities where it is present, providing initiatives to drive their progress via the support, generation and creation of the local economic fabric. In this way, ENDESA contributes to the commitment established by Enel with respect to Sustainable Development Objective 8.

This includes non-energy-related projects for the furtherance of employment, generation of infrastructures, transfer of abilities and skills and support for local business activities.

In 2016, the Company has invested more than 825,000 Euros in this type of initiatives, representing 10% of social investment with the management of 31 projects that have benefitted more than 41,000 people.

10% of social investment in Spain and Portugal (Same percentage according to LBG methodology) was devoted to social-economic development projects

8 DECENT WORK AND ECONOMIC GROWTH



Promotion of employment and sustainable economic development, which is inclusive and sustained for **1,500,000 people** until 2020

Commitment



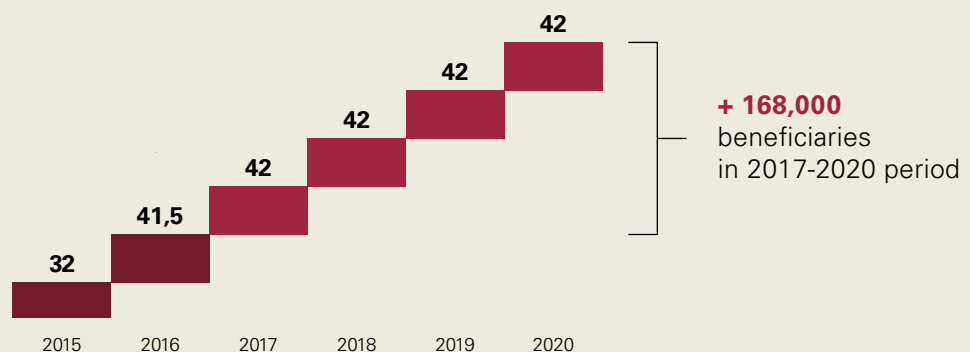
→ **+ 1,5 MM** (2015-2020)

Contribution



→ **+ 241 mil** (2015-2020)

No. beneficiaries in thousands



Some of the most significant initiatives are as follows:

- > **INCENSE** (INternet Cleantech ENablers Spark). A programme co-financed by the European Commission within the FIWARE Accelerate programme, coordinated by Enel, in which ENDESA, together with Accelerace and FundingBox, is a partner. Its aim is to further innovation and high-technology specialised employment in the European energy sector, accelerating the development of clean technology-related products and services. Two calls have been performed in 2016 to choose the 42 best start-ups in the energy sphere from among 486 applications presented by SMEs and entrepreneurs from 31 European countries. These start-ups have received up to 150,000 Euros (non-refundable) and acceleration services for the development of their products and services. 14 start-ups chosen in the first call completed their acceleration program in January 2016 and 28 start-ups chosen in the second call received the acceleration services during 2016, in both cases ending with presentations of their projects to investors. 12 winning INCENSE start-ups are cooperating with the INCENSE business partners for the development of their projects. With this initiative, the aim of both Enel and ENDESA is to support innovation, the business world and social-economic growth.



- > **Transfiere Forum (Malaga)**. A professional, multi-sector meet where participants have a business opportunity to find potential technology partners in the scientific field and the business sector. ENDESA promotes and actively collaborates in its staging. In 2016 edition, more than 300 people have attended, 30% more than in 2015, and 5,500 working meetings have been held in the networking area. Likewise, more than 500 companies and institutions registered in 1,900 technological projects, 190 research groups and 40 universities visited the Malaga facilities.

- > **Junior Enterprise**. ENDESA Foundation has joined Youth Business International, a global network formed by private, independent not-for-profit organisations, domestic in nature, specialising in providing support services for the young entrepreneurs, with presence in more than 40 countries. The ENDESA Foundation and the Youth Business Spain Foundation (YBS) launched the «Entrepreneurship Skill Development Program» in 2016. The aim is to enable the creation of 300 new businesses and 500 jobs by training 1,188 young people in a 3-year period. The project's beneficiaries are young people between 18 and 35 years of age who have a business idea but do not have the training, the financial resources or the experience to get started.

- > **Occupational training**. The ENDESA Foundation, in collaboration with «Ayuda en Acción» and the Integra Foundation, has carried out a job integration program in the area of Cornellá, Barcelona, where 145 people at risk of social exclusion referred by other NGOs and the Town Council social services were attended to. After the training performed through 7 «Strengthening Schools» given by volunteers from companies, 62 people have been recruited in around twenty companies, among which we can highlight FCC Construction, Urbaser, ACCIONA FS, NISSAN, CLECE, Carrefour Market and EULEN, among others.

This program is going to be taken to other vulnerable districts in Barcelona and neighbouring towns with a greater poverty index, with the aim of training 240 people and achieving that a minimum of 80 find a job.

- > **Assignment of use of Company assets**. ENDESA has assigned, during 2016, multiple unused company assets to town councils and other social institutions, in order to favour the social and economic development of the communities. As examples, we can highlight the authorisation for cork extraction in land belonging to ENDESA to Montejaque Town Council (Malaga), the assignment of the use of the Guardiola de Berguedá castle to the town council of said town (Barcelona), the assignment of land for public installations to the town council of La Pont de Suert (Lérida), the assignment of use of premises in Madrid to the residents' association to install a kindergarten, the assignment of use of space in CH Talarn to establish

an industrial museum, the assignment of mountain refuges to the Federation of Mountaineers of Catalonia or the assignment of land for use as green route in Escatrón-Samper.



For more information, more project examples are given in section 3.3.6. *Corporate Volunteering Projects*.

## 3.3. Local community support projects

ENDESA gives support to local communities through various types of projects that have the aim of improving the wellbeing of people and communities, maintenance of their cultural identity, conservation of their heritage, improvement of the environment and local biodiversity, sports, the promotion of healthy habits and the support of coverage of basic needs.

More than 5 million Euros allocated to local community support projects, of which 558,000 Euros were allocated to the environment and biodiversity and 4.5 million Euros to the other initiatives

When performing these actions, ENDESA bases itself on the knowledge and sensitivity of each local reality and collaborates with the main social organisations in the environment where it operates, getting support from the territorial units. This axis of action has been the greatest investment ENDESA has received, arising from the needs demonstrated by our environment, with 58% of the budget corresponding to more than 5 million Euros, 136 projects managed and more than 606,000 beneficiaries.

### 3.3.1. Education projects

ENDESA is committed to promoting access to quality, inclusive education, in line with the fourth UN sustainable development objective, that both the Company, and its parent company, Enel Group, have adhered to.

Multiple initiatives linked to this area have been developed, among which we can highlight:

- > **The Country of students.** Free press program for teachers and students of 2<sup>nd</sup> cycle of ESO (secondary school), middle and intermediate level FP (vocational training) which promotes multidisciplinary learning through a recreational educational proposal for team work and personal development of students.





Support for the education  
of **400,000 people** in 2020  
through different educational projects

Commitment



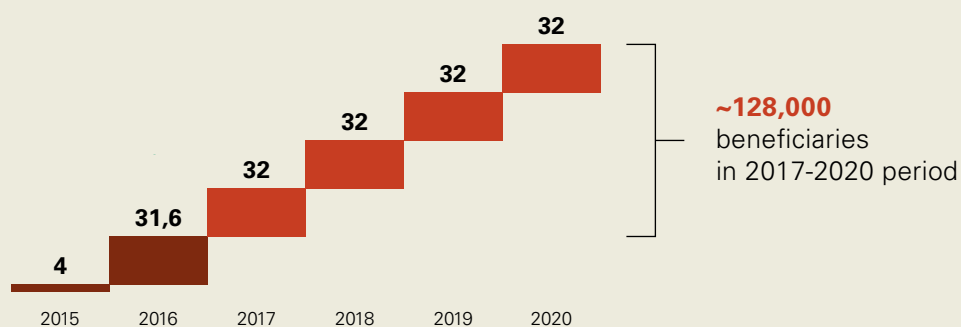
→ **+ 400 thousand** (2015-2020)

Contribution



→ **164 thousand** (2015-2020)

No. beneficiaries in thousands



> **«Investiga I+D+I» Research Program.** In collaboration with the San Patricio Foundation, this educational program has the aim of encouraging secondary students' interest in research in addition to motivating their future studies.

> **Agreement with the Higher Polytechnic University of the Balearic Islands (UIB).** Program to promote engineering and mathematics in secondary schools in the autonomous community.

> **Awards to encourage academic excellence.** Don Bosco Award for research and technological innovation, Award to the best end-of-degree project in the ICA and Journalism award in the Alberta Giménez Higher Education Centre (CESAG).

> **Postgraduate studies.** Master's degree in environmental technology of Huelva University and ENDESA Red Chair.

Likewise, one of ENDESA Foundation's main lines of action is the contribution and promotion of projects that transform and innovate primary, secondary, baccalaureate education and higher education for students and teachers. Furthermore, it promotes academic excellence in the university with subsidies, study grants and chairs. These actions include:

> **Promotion of young talent with high abilities and few resources.** School & Talent is a program for training and accompanying students with talent performed in 4 schools of the ENDESA Educational network of the Escuelas Profesionales de la Sagrada Familia (SAFA) Foundation: Andújar, El Puerto de Santa María, Écija and Úbeda. It has 203 direct and indirect beneficiaries.

> **Driving technological enterprise.** The «ENDESA Foundation » is a training project for teachers and 1,020 students in 51 centres in the Community of Madrid Secondary Education (12-16 years), in technological entrepreneurship, strengthening knowledge in creative technology by programming and robotics.

> **Strategic alliances with universities in Spain and the USA.** 2 Fullbright postgraduate grants for Spanish students in leading universities in the USA; 1 undergraduate research grant with Rovira i Virgili University; 4 grants in European Union Law with the Carlos III University; 7 postgraduate grants with the Carolina Foundation; 1 Chair of social inclusion with the Rovira i Virgili University; «Science, Technology and Social Ethics» program of the Science, Technology and Religion Chair of the Engineering School (ICAI) of the Pontificia of Comillas University, and Program to recruit pre-doctoral research staff of the University of Catalonia.

The financial investment in the education projects of both ENDESA and the ENDESA Foundation came in 2016 to more than 973,000 Euros with close to 32,000 beneficiaries

### 3.3.2. Support projects for the family and social services

In 2016, ENDESA has performed many actions to mitigate critical situations in families and people at risk of exclusion. We can highlight some of these:

> **Agreement with Save the Children and Ecoembes,** to donate the money raised with the reuse of recyclable waste for its donation to childhood. In 2016, and for the third year running, the Head office has continued to promote the selective collection of recyclable waste, managing to raise more than 3,800 Euros, which have been allocated to the Save the Children social intervention centre in Leganés (Madrid) where it attends to 160 children at risk of exclusion and their families. ENDESA's contribution has been allocated to equipping the Centre with school support materials for the educational reinforcement of children and the fitting out and refurbishment of communal spaces, classrooms and playroom of the Centre.



> **Resource collection campaigns and assistance to disadvantaged groups.** ENDESA cooperated with various NGOs in the collection either of resources or directly of food. Among these we highlight the Solidary Christmas Concert in Mangualde (Portugal), where 200 baskets of essential commodities were given to families in need. Also, during Family Day in Barcelona school material was collected to support the program «Promotion of the school success» of the Red Cross. 250 kg of food was also collected in the East Division of Catalonia for people in a vulnerable situation of the region. Finally, several campaigns to collect toys and children's food have been carried out in the Canary Islands, Madrid and Catalonia, with more than 2,300 children benefitting as a result of these initiatives.

> On the other hand, ENDESA and the Sevillana ENDESA Foundation have collaborated with different NGOs and foundations to mitigate precarious situations of vulnerable groups. Among them, the Madres Agustinas Recoletas, who provide assistance in basic needs to underprivileged people; the Alalá Foundation, which supports social and employment integration of people at risk of social and labour exclusion; the Nazaret Foundation, which has the aim of caring for children from families who cannot look after them; The Red Cross in its campaign «Now more than ever» or the NGO No Child without a Home, in Tangiers.



### 3.3.3. Culture promotion projects

ENDESA remains interested in promoting culture in society, collaborating in many initiatives in this field, such as the San Cugat Theatre Auditorium, the Royal Theatre Foundation, the Gran Liceo Theatre in Barcelona or the Maestranza Theatre in Seville. Likewise, in 2016 it has taken part in exhibitions, concerts, museums, the publishing of books, etc. As examples, we highlight the Natural History Museum of the Balearic Islands, the Cantonigrós International Music Festival, the "Romantic Picasso" exhibition or the Ancient Music Festival of the Pyrenees. It is estimated that these initiatives have benefitted over 241,000 people.

Likewise, the ENDESA Foundation continues with its commitment to preserve and recover culture and art in its different facets. In particular, in 2016 it has devoted part of its resources to the artistic lighting of high-impact heritage, in addition to promoting their energy efficiency with these actions. As examples, we can highlight the Reina Sofía Museum, the Sorolla Museum, the Santa María de Albarracín Museum and some emblematic churches such as Santiago in Jerez or Santo Domingo de la Calzada. Approximately 4 million people have benefitted from visiting these monuments.

### 3.3.4. Health and safety promotion projects

> **Health Projects.** The Company supports different NGO and associations in the field of health, either in disease research, or accompanying and aiding patients and their families. Among these we highlight our cooperation with the Precinct Cardiovascular Research Foundation; the Spanish Association for Amyotrophic Lateral Sclerosis; the Spanish Paediatric Haematology and Oncology Society; the Eyes of the World NGO, which fights preventable blindness; the collection and donation of eyeglasses for persons at risk of exclusion; and cooperation with the Medical Smile NGO, which provides animation for hospitalised children. In 2016, it invested more than 478,000

Euros in this type of projects, which have benefitted more than 24,000 people.

> **Projects to attend to people with disabilities.** ENDESA and the Sevillana ENDESA Foundation collaborate with different associations and foundations which have the aim of supporting people with physical or intellectual disabilities and their families. As an example, we can highlight collaboration with the Seville Autism Association; with Atades, Association to care for people with Intellectual Disabilities; Osonament, which promotes the social and professional insertion of people with mental health problems or the agreement with the Randstad Foundation for the employment of disabled professionals in the Canary Islands. Likewise, in 2016 the agreement has been renewed for the sports group of disabled people Econy, which has the aim of contributing to the consolidation and dissemination of wheelchair basketball playing, of which this group is one of the biggest supporters in the Canary Islands.

### 3.3.5. Projects to protect the environment and biodiversity



These are projects which, on a voluntary basis with regard to the Company, encourage the disclosure, preservation, recycling, regeneration and improvement of the environment in general and of biodiversity in particular, for the preservation and improvement of community environments. In 2016, ENDESA has allocated 6% of the total of its social investment to these projects.

6% of the ENDESA's social investment was invested in projects to protect the environment and biodiversity

Some of the initiatives are highlighted below:

> **Activities for the dissemination of environmental and biodiversity issues.** During 2016, ENDESA sponsored the publication of a number of studies, in order to drive the dissemination and awareness of society regarding these matters and also to act as reference material. As examples, we highlight the following: “XXVII Balearic Ornithological Yearbook,” cooperation with the Biodiversity Observatory, participation in Conama, the study of the biotic environment of the As Pontes lake, the study of the influence of genetic and metabolic factors in the rising mobility of the native trout of the Pyrenean rivers, the study of the factors that decrease the population of Pyrenean desmans (*Galemys pyrenaicus*) in the Cardós valley or the study of the biodiversity in mining areas restored by ENDESA, among others. These projects have meant an investment of close to 300,000 Euros.

Likewise, the ENDESA Foundation develops environmental initiatives such as the promotion of energy efficiency and the ecological culture through educational initiatives. These include:

- Preparation of the ENDESA Foundation ecobarometer to monitor the values, attitudes and knowledge of society and, in particular, of youth (16-25 years) about the ecological and environmental culture acquired through education and research about the role education plays in gaining that culture.



- Educational Ecoinnovation Awards, a national competition to promote good school practices in ecological and environmental culture.
- Environmental education in Barranco de Añaza: after its recovery, activities are performed to encourage collaborative learning, the improvement and conservation of the environment, healthy living habits and generating alternative learning spaces that assist and promote young people joining the job market.

> **Programs to protect avifauna and other species.** ENDESA undertakes numerous voluntary to protect birds in general and those in danger of extinction in particular, as well as some other species (bats, tortoises or Pyrenean desmans). During 2016 we can highlight, among others, of note is the monitoring and marking of kites, an endangered species in Majorca; conservation of endangered species of bat in ENDESA's hydroelectric power plants, corrective measures for the populations of cinereous vultures (*Aegypius monachus*) and large carrion birds; the preservation of endangered species of bats; the preservation and protection of the Montagu's harrier, or the Mediterranean turtle recovery project European roller. ENDESA has contributed close to 172,000 Euros to this type of project in 2016.



> **Regeneration of natural spaces.** In line with tradition, ENDESA goes beyond its obligations where the regeneration of natural areas is concerned, and in addition to complying with the corresponding legislation, continues to invest in the improvement of the areas near the power stations. Many projects of this type were performed in 2016, such as the enrichment of biodiversity in the Pyrenean areas of Lleida, a number of environmental activities carried out in the surroundings of the river Eume, or reforestation of the burnt area in Madrid by planting native forest species. In total, over 81,000 Euros have been devoted to these works.

## 3.3.6. Corporate volunteering

With its commitment to corporate volunteering, ENDESA cooperates in the performance of many social development projects with the involvement of its employees. Corporate volunteering acts as a catalyst for the remainder of the initiatives which increase the closeness and involvement of the company with its stakeholders and offers development and commitment to the participants. In 2016, there were 290 volunteers (219 in working hours and 71 outside of working hours), who have devoted more than 2,700 hours to performing different social initiatives. Some of the most outstanding projects in this field are as follows:

EU26

### a) Volunteering in Access to energy projects

- > **Energy Volunteering Program**, see section 3.1. *Access to energy projects*.

### b) Volunteering in projects of social-economic development of the communities

- > **Coach project.** ENDESA has continued with this project, developed via the Exit Foundation and launched in 2013, with great success among its employees. The initiative consists of Company employees providing mentoring and coaching to young people at risk of social exclusion. The employees accompany the young people for a few days and give them advice to improve their employability and to promote their social and labour inclusion. In 2016, 45 volunteers have taken part and 116 young people have benefitted.



- > **Training volunteering “You know more if you share what you know”.** Launched last year, this project is a proposal for employee volunteering, working hand-in-

hand with the Randstad Foundation in workshops on different subjects, but always focused on improving the employability of the users of the Foundation. Thus, there are workshops for preparing interviews, English or coaching. The workshops are given by ENDESA employees during working hours in the cities of Barcelona, Madrid, Zaragoza, Palma de Majorca and Seville. At the end of 2015, 12 employees were performing this voluntary activity and 66 persons actively seeking employment were benefiting from the same.

- > **Job launchers.** Its aim is to improve the long-term unemployed getting back into the job market in groups over the age of 45, young people without qualified training, women with little professional experience, or people at risk of social exclusion, etc. In this project, voluntary employees, coordinated by NGO professionals specialised in this type of process, work in the search for jobs, either employed or self-employed. In 2016, 11 volunteers have taken part and more than 200 people have benefitted from the program.
- > **Improvement of the employability of women who are victims of domestic violence in Seville.** Project started in 2016 together with the Integra Foundation, where ENDESA employees, as volunteers, offer workshops to improve the options of finding a job for women who have gone there in search of help. The aim is to develop a series of skills during the 6 months their commitment lasts. In this first phase, 15 volunteer employees have helped 12 Andalusian women to improve their employability.

### c) Volunteering in local community support projects

- > **Companies Solidarity Day.** ENDESA took part, for the third year running, in the Companies Solidarity Day, an event whose purpose is to promote and facilitate companies' social involvement via corporate volunteering. On this occasion, there was a gymkhana for children with intellectual disabilities.
- > **Solidary races.** ENDESA has encouraged the participation of volunteer employees in races with a social purpose. In this regard, it has taken part in the Atades race «For a new school» and in the race against domestic violence. 61 employees took part, in total.

## 4. Quantification of ENDESA's social investment in the community

G4-EC8

### London Benchmarking Group LBG España



For the eighth year running, ENDESA's report on social activities has been presented according to LBG methodology.

ENDESA has belonged to the workgroup of the London Benchmarking Group (LBG) Spain since 2008. This methodology enables the measurement, management, assessment and communication

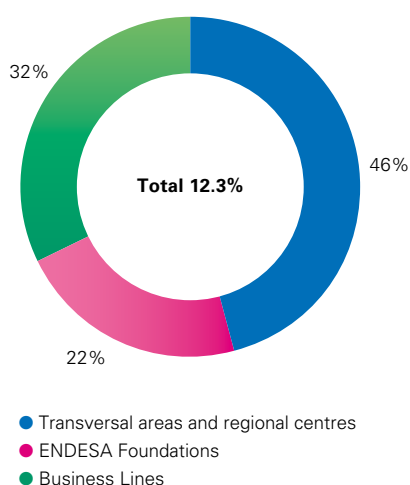
of the contributions, achievements and impacts of the Company's investment in social development in society.

In 2016, and according to LBG methodology, ENDESA has provided 12.3 million Euros in social investment allocated to the communities in the areas where it operates, of which 8.7 million are monetary contributions or in kind. Of the total of this investment, 1.7 million Euros are distributed through the ENDESA Foundations, 4.6 million Euros through the transversal areas and regional centres and 2.4 million through the Company's different business lines.

### ENDESA's investment in social development projects 2016 (thousands of Euros)

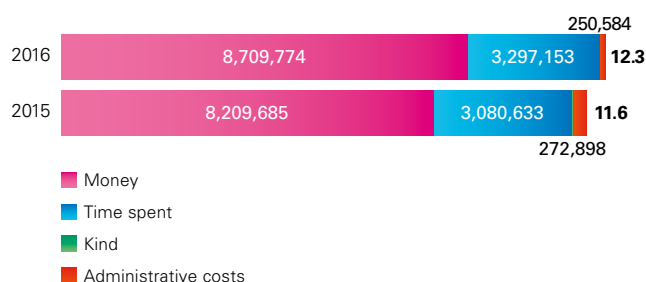
| By area                                | Money + kind | Time spent   | Administrative costs | Total         |
|--|--------------|--------------|----------------------|---------------|
| Transversal areas and regional centres | 4,571        | 1,009        | 77                   | <b>5,657</b>  |
| ENDESA Foundations                     | 1,711        | 964          | 73                   | <b>2,748</b>  |
| Business Lines                         | 2,432        | 1,325        | 101                  | <b>3,858</b>  |
| <b>Total Iberia</b>                    | <b>8,714</b> | <b>3,298</b> | <b>251</b>           | <b>12,263</b> |

### ENDESA's investment in social development 2016



The LBG in ENDESA's social projects in 2016 has risen slightly since it is an increase of 6% with respect to 2015 (12.3 million Euros in 2016 compared with 11.6 million Euros in 2015). Furthermore, this investment has benefitted 20% more people (888,508 direct beneficiaries) thanks to the optimisation, the use of synergies, the greater involvement of employees, the minimisation of accessory costs and improvement management.

## Evolution of the investment in social development Iberia



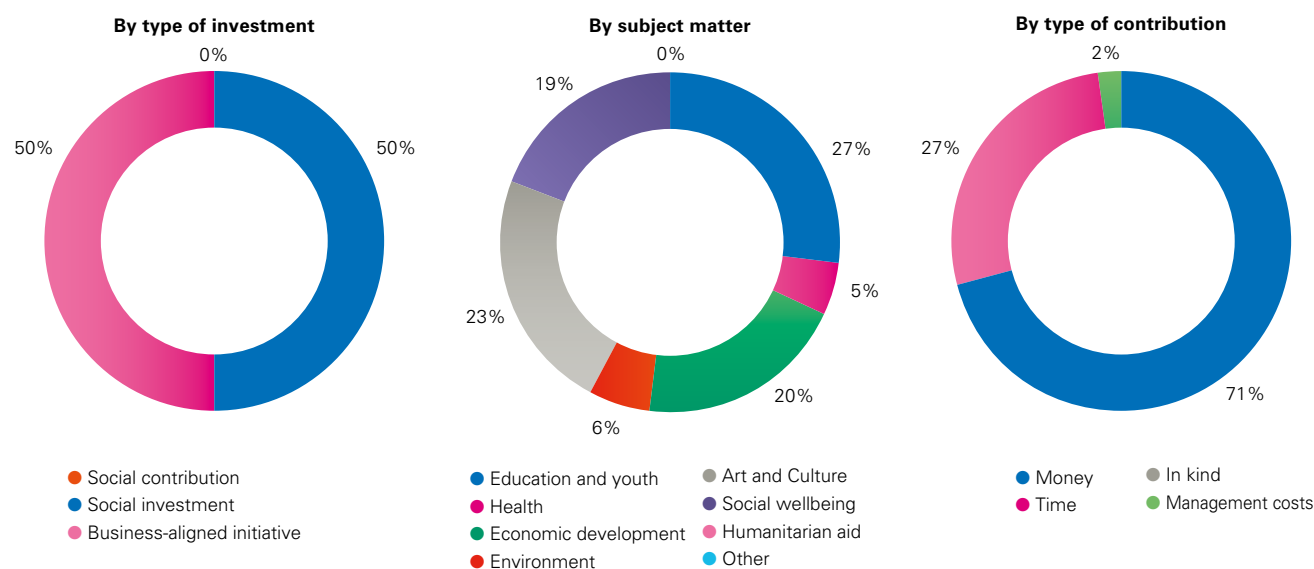
The number of projects has been reduced from 224 in 2015 to 200 in 2016, continuing the trend of focussing the management to fewer but better optimised activities and with a greater level of impact. The social investment level for 2016, considering only the financial contribution and in kind, has meant 0.6% with respect to the net profit of continuous ac-

tivities attributable to ENDESA shareholders, a 1% decrease with respect to 2015 (0.7%). Nevertheless, this ratio cannot be compared to the previous year, since in 2016 there has been a change in the Company perimeter due to the incorporation of Enel Green Power Iberia in ENDESA since the month of July.

With respect to project type, the LBG methodology distinguishes between social investment initiatives, which consist of projects on strategic matters of the Company with long-term commitment, and business-aligned initiatives, which seek to promote business interests by means of support for social causes. In 2016, a balance has been achieved between both categories, with 6 million Euros investment in each one (45% of social investment and 57% in business-aligned initiatives in 2015), which in turn reflects the long-term strategic commitment to communities where it operates under the creating shared value approach between the Company and the local community.

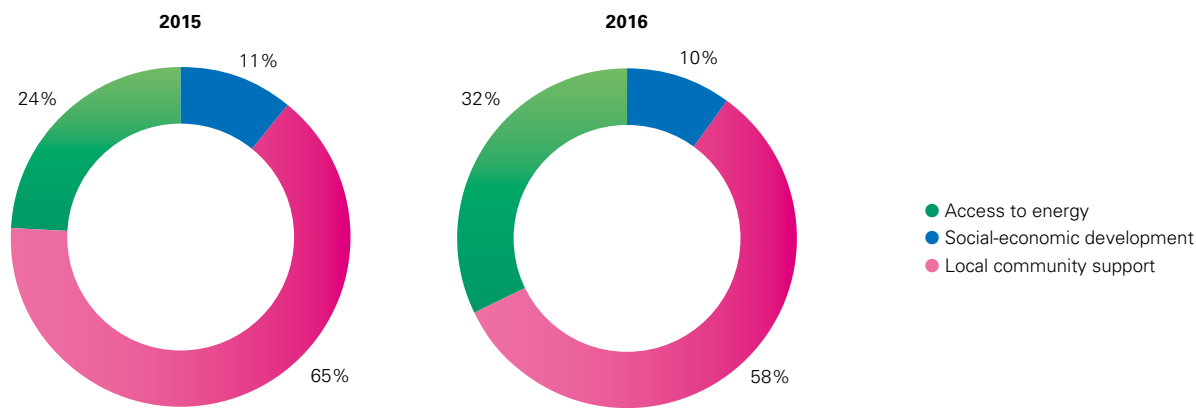
From a subject matter standpoint, according to LBG classification, it should be highlighted that 27% of the investment has gone to education and youth initiatives, 23% to art and culture, 20% in economic development projects and 19% in projects to promote social wellbeing.

## ENDESA's contribution in 2016 to social development projects



Furthermore, if we follow the Enel project classification (explained in the previous section), the distribution of the financial investment (money + kind) has been the following:

Financial investment: money + kind

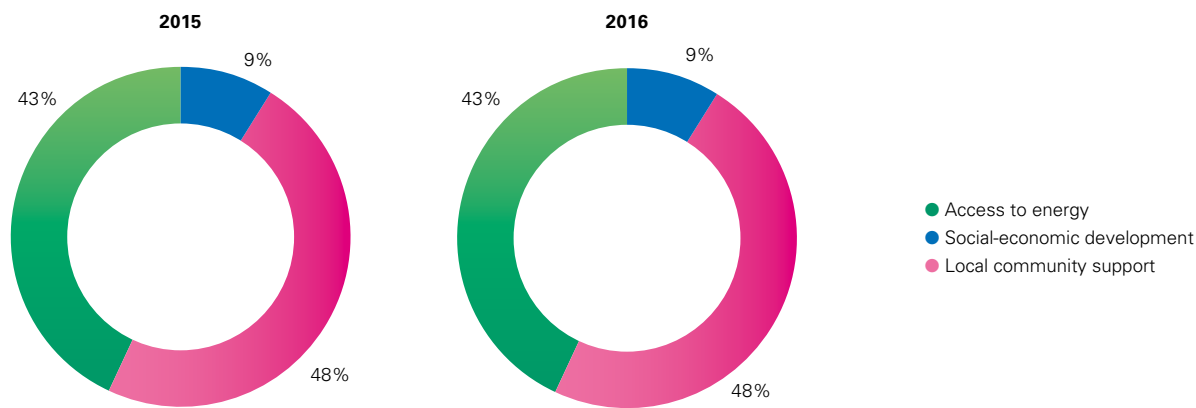


There has been a considerable increase in access to energy projects, going from 24% in 2015 to 32% in 2016, a result of the demonstrated Group commitment to reinforce this line of social action. The investment in social-economic development has remained practically stable, from 11% in 2015 to 10% in 2016. Finally, local community projects have had the greatest investment level, with 58% of the total. However, the latter has undergone a slight decrease with respect to last year of 7 %, mainly due to the reduction in cultural projects, since they do not enter in the strategic priorities the group has in the social sphere, going from 30% in 2015 to 18% in 2016.

If we add to the above, and always following the LBG methodology, the investment in management time and administrative costs, the distribution of the contributions changes with respect to the above: the category with greatest contribution continues to be local community support, with 48%, followed by access to energy projects with 43%. It should be highlighted that in this case there are no differences with respect to 2015 in distribution of the company provision in each category.

Finally, we should comment that in 2016, there have been no physical or economic displacement of people due to Company activities.

Total LBG contribution: money + kind + time + management costs





## 4.1. Achievements, impacts and returns

In 2016, the implementation and development of the methodology has been maintained enabling a strict estimation of the achievements, impacts and returns of social development projects in communities. To do this, the new tool was used defined under the LBG framework in 2015, a result of ENDESA's participation in the LBG Spain workgroup, whose aim was to establish the premises, criteria and variables for the estimation of said information.

Furthermore, progress has been made in the improvement of systems to measure project impacts and returns on a quantitative level. To do this, a measurement system through indicators has begun to be applied, which enable monetising the benefit provided to society (SROI method) and the possible return for the Company (own method). In this regard, two pilot experiences have been performed in 2016 in Iberia with positive results in the implementation.

### 4.1.1. Achievements and impacts

Achievements are considered to be the quantified or estimated result of an investment performed via a social development project in a certain period of time, and Impacts are the estimation of how the initiative has influenced the reality of the actors involved.

In 2016, 96% of the projects have been managed through strategic alliances with public and private bodies, a signal of

ENDESA's commitment to contributing in projects with lasting vocation. It has collaborated with a total of 1,398 public and private institutions to develop 200 projects which have been carried out in the social sphere. 47% have been primary and secondary centres, 14% public institutions and 10% NGO and social foundations.

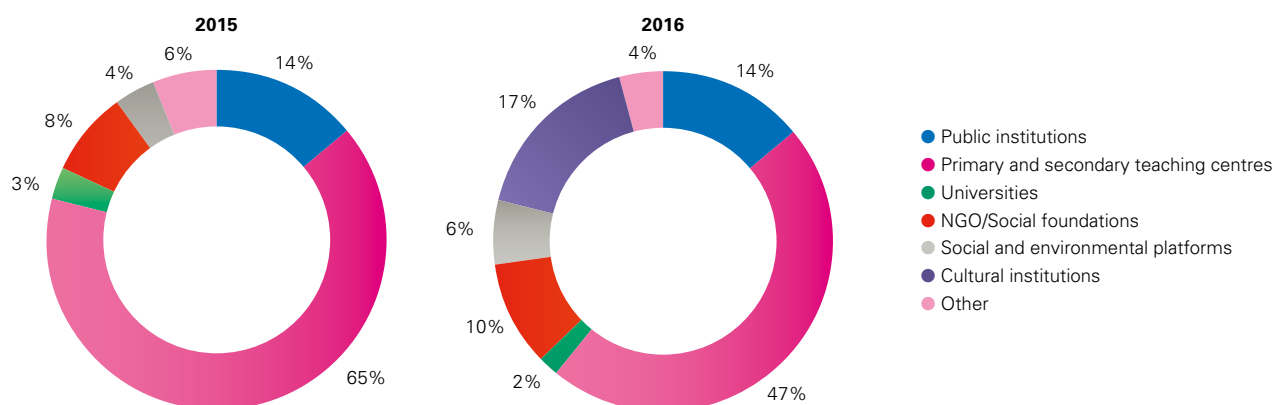
Furthermore, it is estimated that the results obtained by the institutions due to collaboration with ENDESA has translated, in 62% of cases, in an improvement of its services or increase in capacities and in 23%, in an increase in its recognition.

With respect to number of beneficiaries, in 2016 an estimate has been made of a total of 888,508 direct beneficiaries from 200 social development projects performed by ENDESA, which is a 20% increase compared to the previous year (737,002 in 2015). From these, 46% correspond to local communities as a consequence of the creating shared value objective where the Company operates.

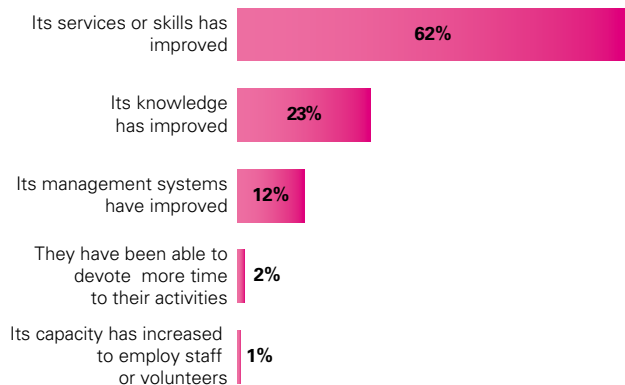
Next come the projects aimed at empowering women with 16% of beneficiaries. Thirdly, with 9% of the total, are children and teenagers and with 7% the people in a vulnerable situation with over 65,000 beneficiaries. This is an increase of almost 80% with respect to beneficiaries of 2015 in this category (36,222 people).

Of the total estimated beneficiaries, close to 150,000 people (16% of the total) experienced a positive impact in their quality of life, an improvement of 5 % with respect to the previous year's result. 12%, 105,000 people, acquired new skills or improved their professional development and over 600,000 (72%) experienced a positive change in their behaviour or attitude as a result of the initiative.

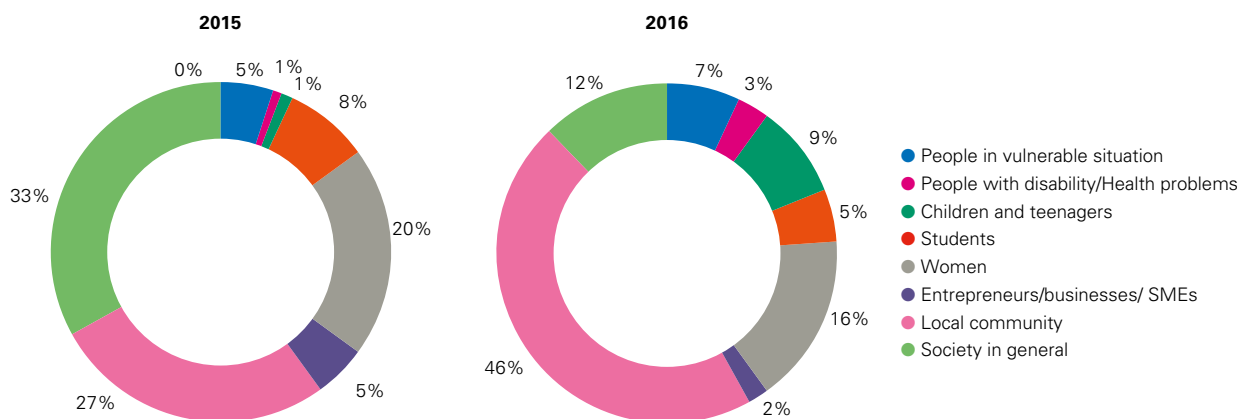
#### Type of institutions it has collaborated with



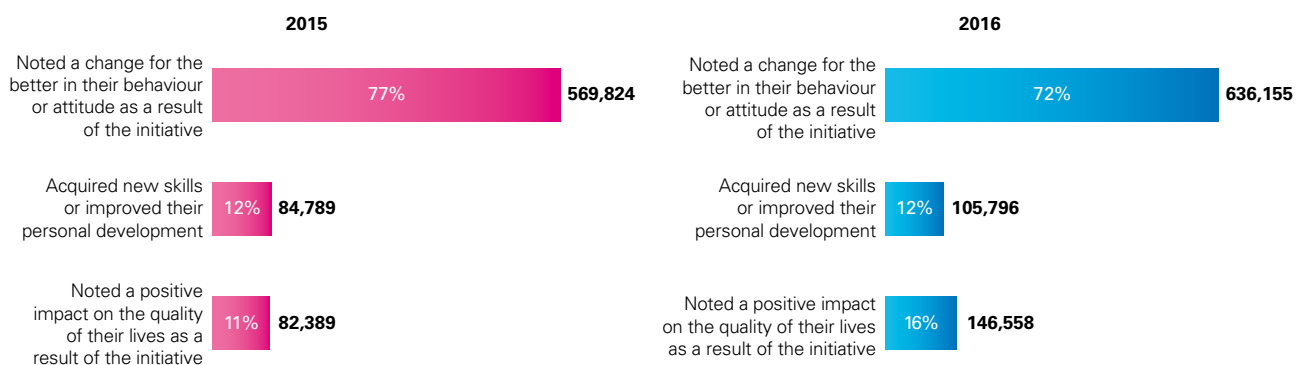
## Estimated results of collaboration with the institutions



## Type of project beneficiaries



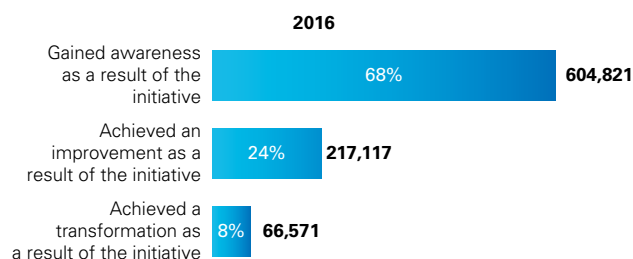
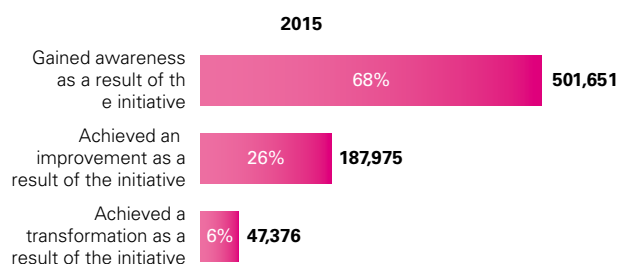
## Depth of change in benefits as a result of projects



Likewise, more than 66,500 people achieved a positive and relevant transformation in their lives as a result of the initiatives. This is a rise of 1% with respect to the level achieved in 2015. 24% achieved improvement and 68% (more than 600,000) has raised awareness thanks to the projects.

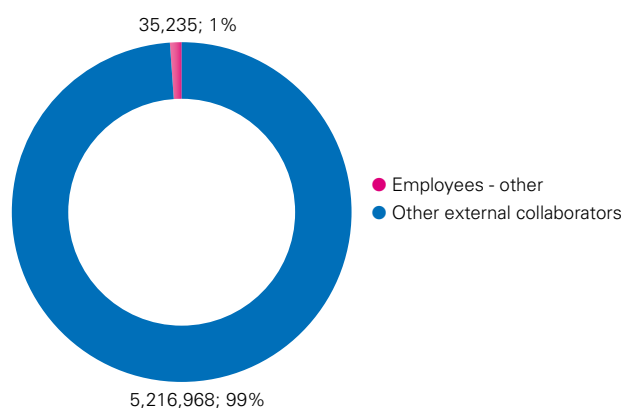
These estimated results are an increased in the quality of the projects managed as the percentages of living quality and achievement of transformation with respect to the previous year have improved.

## Benefits experienced as a result of the projects



Besides, taking into account the multiplier effect, as an additional result of ENDESA's social development projects, other agents have provided a total of 5.2 million Euros to these, by means of economic investment or in kind.

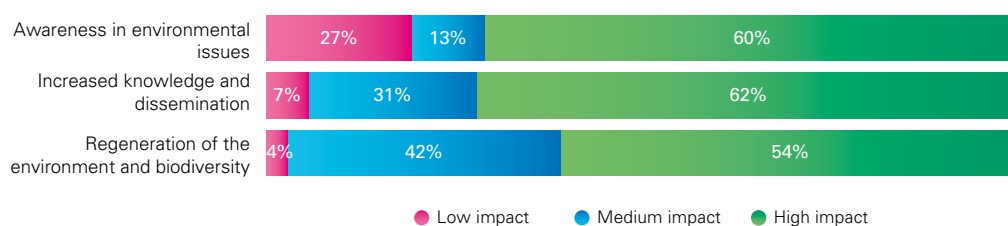
## Contributions of other agents to ENDESA's social development projects 2016



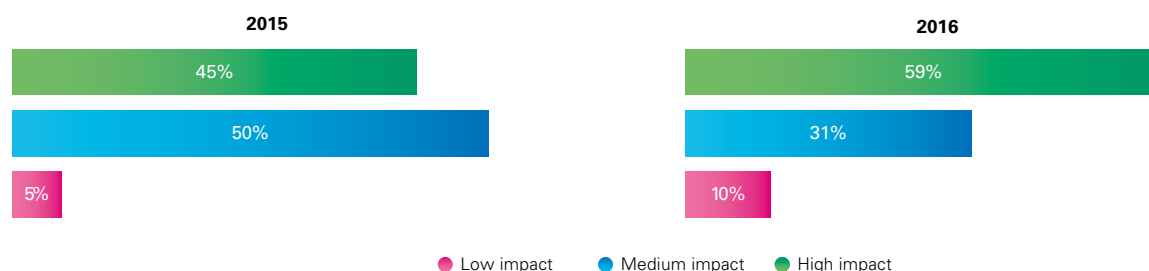
Finally, the types and level of positive impacts on the environment have been assessed, and on biodiversity in 37 social development projects aimed at this subject area. The highest impact has taken place in knowledge expansion and dissemination projects, which include specific study initiatives and research on this subject area, in addition to educational and scientific dissemination actions. As average impacts, we can highlight projects to regenerate the environment and biodiversity of specific areas and biodiversity conservation actions, with special focus on species in danger of extinction.

Of 37 environmental and biodiversity projects managed, 59% have had a high positive impact, an increase of 14 percentage points with respect to the previous year.

## Estimation of the type and level of impacts in environmental and biodiversity projects



## Estimation of the level of positive impacts in environmental and biodiversity projects

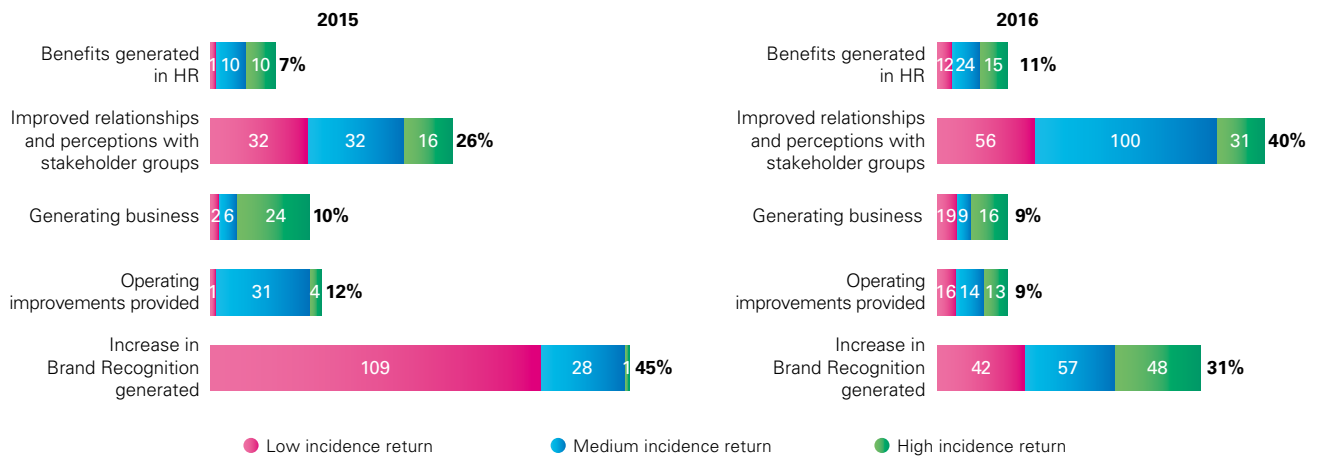


## 4.1.2. Returns

Returns are considered to be the benefits a company may obtain due to the management of social projects beyond its social licence.

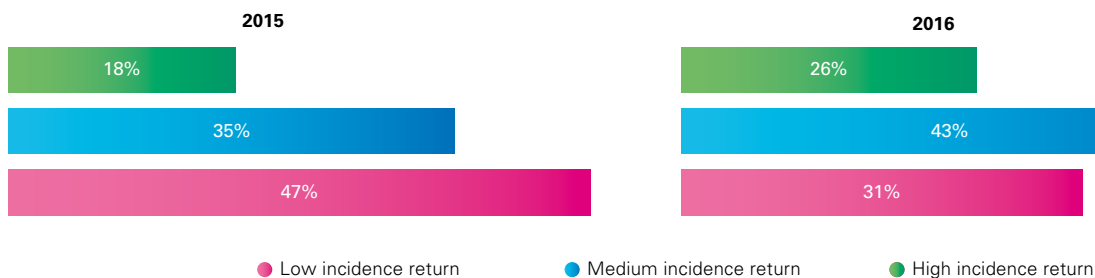
With regard to the returns and level of incidence for ENDESA of the social projects carried out, it is estimated that there have been 472 positive impacts in the company from 200 social projects carried out in 2016. The greatest impact of said project returns is in the improvement of the stakeholder relations and perceptions (40%) and in second place, in the increase in brand recognition (21%). These two returns coincide with the two main ones estimated in 2015, although in a different order.

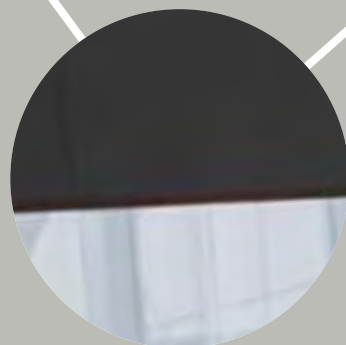
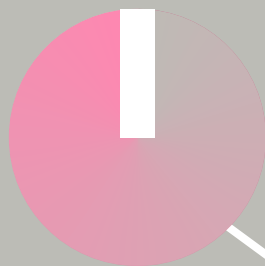
### Estimation of returns for ENDESA of the social development projects performed



Furthermore, 26% of projects have had high incidence in the Company, an increase of 8 points with respect to the previous year. Likewise, the medium incidence returns have also increased, from 35% in 2015 to 43% in 2016.

### Estimation of the incidence level for ENDESA of the social projects performed

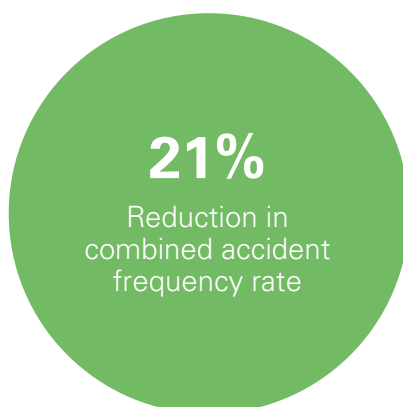






8\_Our People





## Fulfilment of Sustainability Plan 2016-2019

|                   | Objective   | 2016<br>(31/12) | 2016<br>Objective | Main actions  |
|-------------------|---|-----------------|-------------------|---|
| <br>Human capital | External recruitment of women (%).  | 30.45           | 37                | – ENDESA signatory of the Empowerment principles of women<br>– Policy of Diversity and Inclusion.<br>– Parental Program: program designed to balance family and professional needs. |
|                   | Positions of responsibility covered by women (%).                             | 29.3            | 20.8              |   |
|                   | Executive positions covered by women (%).                                     | 16.4            | 18.9              |   |
|                   | Average number of hours/employees in training programs.                       | 45.8            | 41                | – Annual training plan.   |
|                   | Average number of hours/employees in online training programs.                | 12.85           | 11.2              |   |
|                   | Number of employees participating in digital transformation training program. | 561             | 500               | – Reverse mentoring: digital mentors.<br>– E-talent training program.   |
|                   | Employees benefitted by improvement in working areas in offices.              | 468             | 300               |   |
|                   | Number of conciliation services offered to employees.                         | 15              | 12                | – Equipping of new working spaces for 468 employees in buildings of Zaragoza, Cordoba and Bilbao.   |



#### Human capital

| Objective  | 2016<br>(31/12) | 2016<br>Objective | Main actions  |
|--|-----------------|-------------------|---|
| Employees trained in programs about energy challenges: sustainability. | 3,478           | 4,000             | – “Súmate al reto energético” (Join the energy challenge) program.  |
| % of employees covered by Company assessment systems.                  | 100             | 50                | – Knowledge interview, coaching.<br>– Succession plans.   |
| Fatal accidents.   | 1               | 0                 | – Occupational Safety and Health Courses<br>– Specific action plans against the accident rate.  |
| Combined accident frequency index.                                     | 1.01            | 1.2               | – Maintenance and creation of alliances with the collaborating companies and action plans with contractor companies with high accident rate.  |
| Accident frequency index in employees.                                 | 0.29            | 0.66              | – «Safety walks»: visits by senior management to the SPM (Joint Prevention Service)<br>– «DELFO»: own management tool for Occupational Safety and Health and information integration. |
| Accident frequency index in contractors.                               | 1.45            | 1.45              | – Formal health and safety committees to represent workers.   |
| Number of medical examinations.  | 79,880          | 70,514            | – 147,697 hours of occupational safety and health training for own staff. 6,995 people have attended occupational safety and health training courses.                                 |
| Number of awareness-raising actions.                                   | 230             | 223               |   |
| Number of safety inspections.  | 65,675          | 61,408            |   |

# 1. ENDESA's workforce

G4-10 G4-LA12 EU15

ENDESA had 2016 9,694 employees at December 31<sup>st</sup>, 9,684 in Spain and 9 in Portugal.

During 2016, 556 new staff have been recruited in Spain and Portugal, and 862 contracts have been terminated in the same area. ENDESA's workforce has gone down 3.07% with respect to 2015.

## ENDESA's workforce at 31 December

|                    | 2014   | 2015   | 2016  |
|--------------------|--------|--------|-------|
| Spain and Portugal | 10,500 | 10,000 | 9,694 |

## Average workforce

|                    | 2014    | 2015     | 2016    | %<br>Variation<br>2015/2016 |
|--------------------|---------|----------|---------|-----------------------------|
| Spain and Portugal | 10,776* | 10,242.9 | 9,819.4 | -4.1%                       |

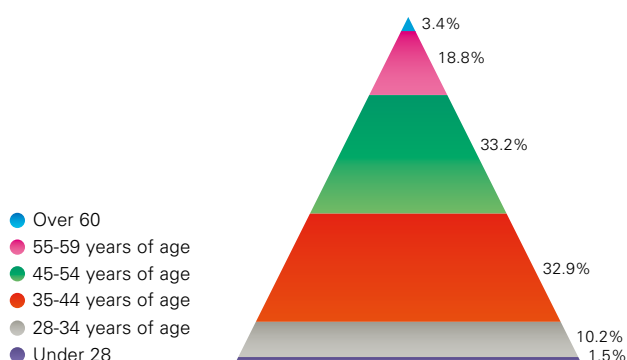
\* Homogenized with 2015 without ENDESA Latin America.

Some details that allow the ENDESA's workforce as a whole to be characterised are shown below.

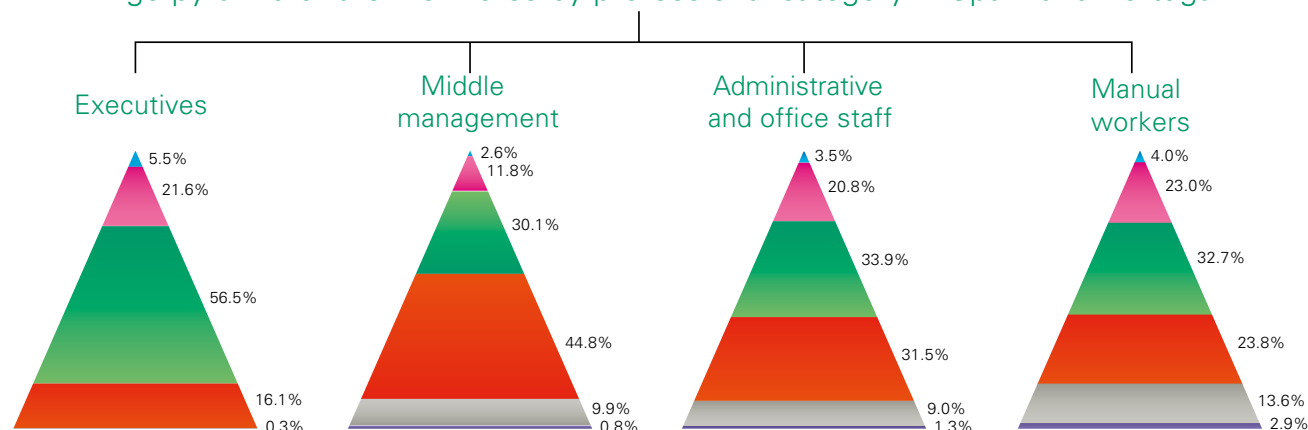
G4-LA12

The segmentation of the workforce by age shows that the largest number of employees, 33.2%, was in the age range 45 to 54. The average age of the workforce was 46 years.

## Age pyramid of the workforce in Spain and Portugal



## Age pyramid of the workforce by professional category in Spain and Portugal



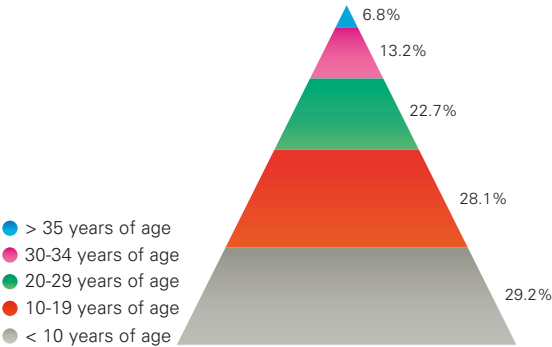
97.6% of the workforce had a permanent contract, which meant 9,458 contracts. The figure of temporary contracts was 236. The average time an employee has been in the company is 18.1 years of age: over 70.8% of employees have been working in the company for over 10 years.

As regards working day, the large majority of employees work full-time. 9,689 employees have full-time contacts and 5 part-time.

## 97.6% of the workforce had a full-time contract

G4-10

### Years working in the company in Spain and Portugal

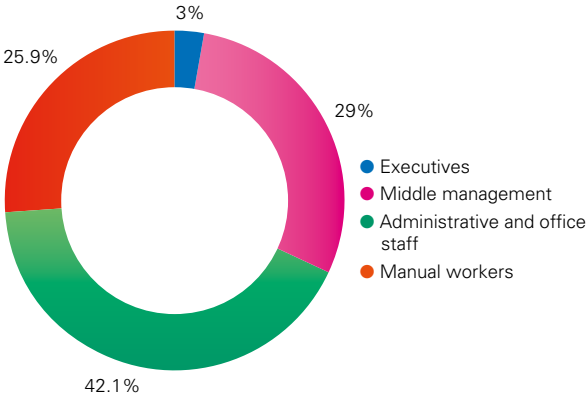


By workforce category, 42.1% were administrative and of-  
 fice staff, followed by middle management (29%), manual  
 workers (25,9%) and executives (3%).

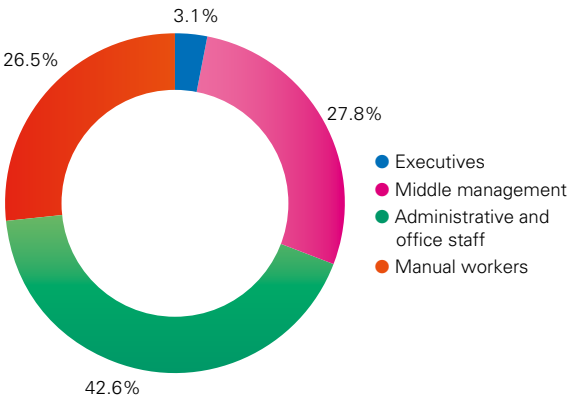
## Contractor employees per job type

| Content      | Spain       |               |
|--------------|-------------|---------------|
| Full-time    | 2014        | 14,923        |
|              | 2015        | 15,923        |
|              | 2016        | 13,183        |
| Part-time    | 2014        | 1,774         |
|              | 2015        | 2,341         |
|              | 2016        | 2,957         |
| <b>Total</b> | <b>2016</b> | <b>16,141</b> |

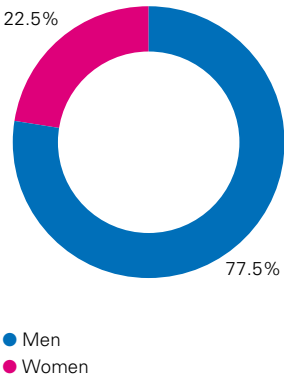
## Distribution of the workforce in Spain and Portugal 31 December



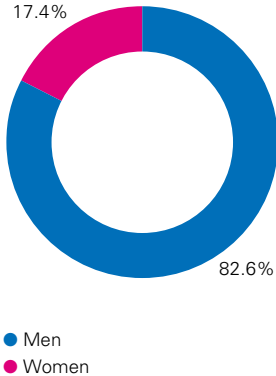
## Distribution of the average workforce in Spain and Portugal at 31 December



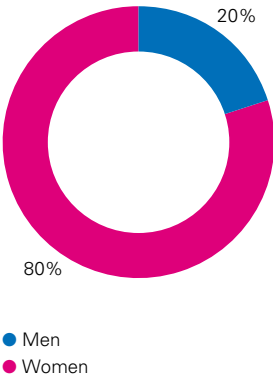
### Permanent contracts by gender in Spain and Portugal



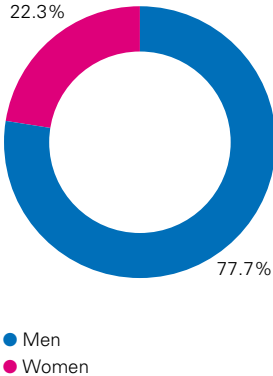
### Temporary contracts by gender in Spain and Portugal



### Part-time contracts by gender in Spain and Portugal



### Full-time contracts by gender in Spain and Portugal



With respect to the distribution by sex, the workforce was formed by 77.6% men and 22.4% women.

### Distribution of the workforce in Spain and Portugal by sex (%)

|       | Executives | Executives | Middle management | Middle management | Administrative and office staff | Administrative and office staff | Manual workers | Manual workers |
|-------|------------|------------|-------------------|-------------------|---------------------------------|---------------------------------|----------------|----------------|
|       | 2015       | 2016       | 2015              | 2016              | 2015                            | 2016                            | 2015           | 2016           |
| Men   | 85.3       | 83.6       | 69.6              | 69.2              | 72.9                            | 71.1                            | 96.6           | 96.9           |
| Women | 14.7       | 16.4       | 30.4              | 30.8              | 27.1                            | 28.9                            | 3.4            | 3.1            |

### Distribution of the workforce in Spain and Portugal

|                                      |             |               |
|--------------------------------------|-------------|---------------|
| Number of women                      | 2014        | 2,261         |
|                                      | 2015        | 2,147         |
|                                      | 2016        | 2,168         |
| Number of men                        | 2014        | 8,239         |
|                                      | 2015        | 7,853         |
|                                      | 2016        | 7,526         |
| <b>Total number of the workforce</b> | <b>2014</b> | <b>10,500</b> |
|                                      | <b>2015</b> | <b>10,000</b> |
|                                      | <b>2016</b> | <b>9,694</b>  |

#### EU15

### Employees in Spain eligible for retirement in the coming years by professional category (%)

|                         | Retirement next 5 years | Retirement next 10 years |
|-------------------------|-------------------------|--------------------------|
| Executives              | 5,49                    | 27,08                    |
| Middle management       | 2,55                    | 14,33                    |
| Personal Administration | 3,49                    | 24,28                    |
| Manual workers          | 4,04                    | 26,99                    |
| <b>Total</b>            | <b>3,42</b>             | <b>22,18</b>             |

## 2. Leadership and people development

ENDESA continually seeks to identify and develop personal potential so that their performance can contribute to making the Company a benchmark in the sector. In this light, the Leadership Model and the Talent Development Model ensure the personal development based on recognition of merit and contribution.

### 2.1. Leadership model

G4-LA10 G4-LA11

The leadership model is based on the Group's vision, mission, values and behaviour. The Open Power values are present in all people management systems and these are:

|                 |   |
|-----------------|---|
| <h2>VALUES</h2> | <b>Responsibility</b><br>Each one of us is responsible for the group's success, at all levels. We place our energy at the service of people to improve their life and make it more sustainable.   |
|                 | <b>Innovation</b><br>We live and work with curiosity, we make an effort to go beyond the usual and overcome our fears to open energy to new uses, technologies and people. Learning both from what we get wrong and what we get right.  |
|                 | <b>Trust</b><br>We act competently, honestly and transparently to gain the trust of our colleagues, customers and external collaborators, valuing individual differences. We also trust in their capacity to create value and share it. |
|                 | <b>Proactivity</b><br>We take charge of our work in first person. We continually interpret the global scenarios and challenges to get ahead of changes, redefining the priorities if the context so requires.                           |

G4-LA11

In 2016, in ENDESA, 85.35% of employees received regular performance and professional development appraisals through any of the Company's appraisal systems, assessing in this way 8,273 employees, 2.6 more than in 2015.

This such considerable increase was due to inclusion of the new «Performance Appraisal (PA)» system which is added to the already existing Performance Management (GR), Management by Objectives (MBO) and Salesforce Objective systems. 10,522 appraisals were performed in 2016.

#### Integral unemployment appraisal system





#### Number of performance and professional development appraisals

|      |         |
|------|---------|
| 2014 | 3,931   |
| 2015 | 3,102   |
| 2016 | 10,522* |

\* Includes Performance Management (GR), *Management By Objectives* (MBO), Salesforce Objective (OFV) and for the first time this year Performance Appraisal (PA).

## Dissemination of regular appraisals (at least once per year) of performance and professional development

| Spain and Portugal   |     |       |       |
|--|-----|-------|-------|
| Employees that receive regular performance and professional development appraisals         | %   | 2014  | 41.15 |
|  |     | 2015  | 32.75 |
|  |     | 2016* | 85.35 |
| Employees that receive regular performance and professional development appraisals (men)   | %   | 2015  | 71    |
|  |     | 2016* | 77    |
| Employees that receive regular performance and professional development appraisals (women) | %   | 2015  | 29    |
|  |     | 2016* | 23    |
| Total employees appraised  | n.º | 2014  | 3,931 |
|  |     | 2015  | 3,102 |
|  |     | 2016* | 8,273 |
| Executives appraised   | n.º | 2014  | 263   |
|  |     | 2015  | 329   |
|  |     | 2016* | 298   |
| Middle management appraised  | n.º | 2014  | 2,426 |
|  |     | 2015  | 2,526 |
|  |     | 2016* | 2,440 |
| Administrative and office staff appraised  | n.º | 2014  | 1,173 |
|  |     | 2015  | 243   |
|  |     | 2016* | 3,516 |
| Manual workers appraised   | n.º | 2014  | 69    |
|  |     | 2015  | 4     |
|  |     | 2016* | 2,019 |

\* Includes Performance Management (GR), *Management By Objectives* (MBO), Salesforce Objective (OFV) and for the first time this year *Performance Appraisal* (PA) appraisals.

## 2.2. Talent development

G4-LA10

ENDESA has continued with different professional development actions it has been rolling out in recent years. We can highlight the individual knowledge interviews on people, *coaching*, *mentoring* and *reverse mentoring*, consulting for team development, workshops for skills development,

business knowledge seminars and definition of succession plans.

These actions performed as a whole in 2016 meant an increase in the number of people involved in this type of programs greater than 36% with respect to 015.

- > **Knowledge interviews.** 2016, ENDESA has continued with the Conocer interview initiative, which consists of an interview performed by Human Resources experts with each one of the employees. The purpose is to

know, first hand, their interests, aspirations and motivations. Before the interview, a self-profile is completed designed to discover, at that time, the profile of the individual interests. At the end of 2016, 9,102 people from the Company have had this interview.

- > **Coaching.** ENDESA has continued commitment to coaching. During 2016, 273 people have benefited from this type of individual or group actions. ENDESA has an internal coaching network which performs these processes.

Additionally, 141 people managers have taken part in the coaching workshops, compared to 127 in 2015. The subject matters covered have been, among others, feedback, communication, listening, creation of trust within the team, and coordination of actions, among others, which offer the managers coaching tools to transform the manager profile in ENDESA.

During this year ENDESA reinforced an internal consulting line which gives ad hoc solutions to the needs posed by the businesses. This action is performed by internal development experts applying coaching techniques and tools.

- > **Reverse mentoring.** In 2016, as part of the Digital Transformation Plan, a reverse mentoring plan has been initiated, with the participation of 27 mentors and 30 *mentees*. It is an innovative initiative where the mentors, compared with conventional mentoring, are people who are younger than their mentees and provide their wide experience in digital skills. This has been carried out in 3 areas of the company: marketing, systems and communication.

- > **Succession plans.** In 2016, ENDESA has continued designing succession plans to identify the successors of the positions of greatest responsibility (Top 200) and the have included the group executive positions. The succession plans identify both people prepared for success in the short term and those in the medium to long term. The identification is governed by segmentation criteria, giving relevance to the groups of women and young people. Specific development actions are also identified for the successors.

- > **Business Knowledge Seminars.** In 2016, the stage of the business knowledge initiative started in 2015 has closed. More than 830 people have taken part in this, added to the almost 900 that took part in 2015. The Business Knowledge Seminars are an innovative development initiative which has a twofold objective: increasing the participants' knowledge and giving them a global and integrated view of the company's different areas of activity.

# 3. Training

## 3.1. Key figures and relevant aspects

G4-LA9 | G4-DMA Employment EUSS | G4-LA10 | G4-DMA Training and education | G4-SO4 | G4-HR7 | G4-DMA Safety measures

### Training in ENDESA in 2016



ENDESA establishes its annual training plan to guarantee the adequate performance of the people within the organisation, in terms of safety and efficiency, in addition to encouraging the professional development of the workforce. Likewise, the 2016 Training Plan has been focussed on fulfilling the company's strategic objectives and enhancing its values of responsibility, innovation, proactivity and confidence.

During 2016, new internal training procedures have been implemented which have enabled better knowing the needs and priorities of people and thus achieving greater degree of efficiency. These improvements have been reflected in a general increase in training activity.

To perform this activity, ENDESA has invested 27.2 million euros, 4.34 million euros in direct costs of the training activity.

During 2016, 3,150 training events have been performed in ENDESA. 8,728 employees took part in these events. This activity enabled giving 444,063.4 hours training, reaching

an average of 45.8 hours per employee, greater than the previous year at 40.1. In this way, ENDESA has fulfilled the target of 41 hours per employee set in ENDESA's 2016-2019 Sustainability Plan.

G4-LA9 | G4-DMA EUSS employment

### Total hours training

|      |           |
|------|-----------|
| 2014 | 408,700.1 |
| 2015 | 401,296.1 |
| 2016 | 444,063.4 |

| Total hours in-person and online training | People trained | Participations | No. events | Total Costs of Training (thousands of euros) |
|---|----------------|----------------|------------|--|
| 444,063.4                                 | 8,728.0        | 48,028         | 3,150      | <b>*27,222.2</b>                             |

\* Includes cost of working hours.

## Número de horas de formación según tipo de formación

Spain and Portugal

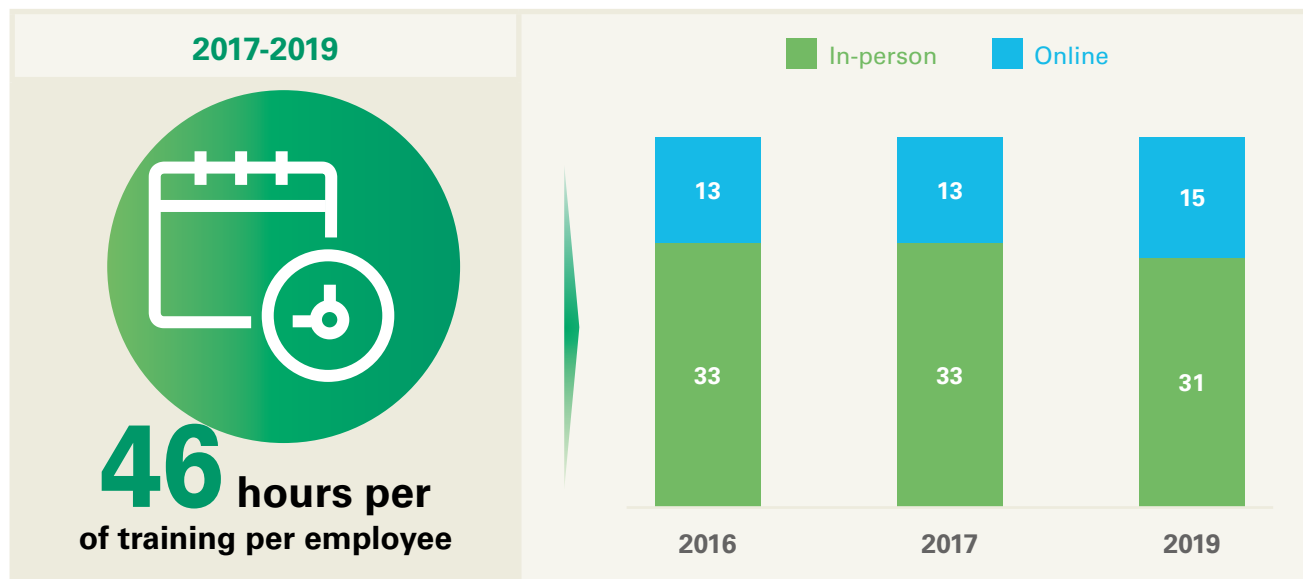
|                                       |      |           |
|---------------------------------------|------|-----------|
| Online management training            | 2014 | 6,944     |
|                                       | 2015 | 10,370    |
|                                       | 2016 | 14,274    |
| In-person management training         | 2014 | 38,777    |
|                                       | 2015 | 45,345    |
|                                       | 2016 | 50,353    |
| Online technical/specific training    | 2014 | 100,433   |
|                                       | 2015 | 118,031   |
|                                       | 2016 | 110,309   |
| In-person technical/specific training | 2014 | 262,546   |
|                                       | 2015 | 227,550   |
|                                       | 2016 | 242,936.4 |

## Average hours training per employee, itemised by gender and professional category

|  |       |             |
|--|-------|-------------|
| Executives                               |       |             |
| 2014                                     |       | <b>46.7</b> |
|  | Men   | 43.2        |
|  | Women | 68.3        |
| 2015                                     |       | <b>56.6</b> |
|  | Men   | 54.0        |
|  | Women | 71.7        |
| 2016                                     |       | <b>29.9</b> |
|  | Men   | 28.8        |
|  | Women | 35.4        |
| Middle management training               |       |             |
| 2014                                     |       | <b>60.1</b> |
|  | Men   | 62.0        |
|  | Women | 55.4        |
| 2015                                     |       | <b>58.3</b> |
|  | Men   | 57.5        |
|  | Women | 60.0        |
| 2016                                     |       | <b>52.9</b> |
|  | Men   | 52.8        |
|  | Women | 53.2        |
| Administrative and office staff training |       |             |
| 2014                                     |       | <b>33.0</b> |
|  | Men   | 34.2        |
|  | Women | 27.5        |
| 2015                                     |       | <b>27.9</b> |
|  | Men   | 28.2        |
|  | Women | 26.9        |
| 2016                                     |       | <b>42.3</b> |
|  | Men   | 44.7        |
|  | Women | 36.4        |
| Manual worker training                   |       |             |
| 2014                                     |       | <b>20.3</b> |
|  | Men   | 23.2        |
|  | Women | 11.4        |
| 2015                                     |       | <b>40.8</b> |
|  | Men   | 41.0        |
|  | Women | 36.2        |
| 2016                                     |       | <b>45.4</b> |
|  | Men   | 45.7        |
|  | Women | 36.1        |

To continue promoting training (both online and in-person), ENDESA has established a new objective in its ENDESA 2017-2019 Sustainability Plan:

### 2017-2019 Sustainability Plan: annual hours training per employee



## 3.2. Type and content of Training

ENDESA's commitment to comply with current legislation in relation to each one of the areas where it operates includes numerous training actions, among which we can highlight those relating to safety, criminal risk prevention, sustainability and the environment.

### Sustainability Training

|  |      |         |
|--|------|---------|
| Hours training in issues of sustainability (environment, safety and health, etc.) per employee | 2014 | 13      |
|  | 2015 | 13      |
|  | 2016 | 18      |
| Total training hours in sustainability   | 2014 | 135,993 |
|  | 2015 | 125,732 |
|  | 2016 | 175,882 |

### Energy sustainability training

The important process of transformation to a new energy model must include a strengthened commitment to sustainability as proposed by the Group's Open Power positioning.

Hence, this year an innovative training program has been set in motion: «Súmate al reto energético» (Join the energy challenge). The objective is that people in ENDESA are aware, informed and trained about sustainability and the Company position in this matter. In this way, it aims that ENDESA employees can internalise the principles of sustainability in the area of action, both professional and private, and that with a change of energy behaviour they become a benchmark for society.

### Health and safety training

In the area of occupational health and safety, the Occupational Safety and Health courses are aimed at all the workforce with mandatory character, combining online and in-person methodology, depending on the content and public objective. Additionally, specific actions are carried out for specific positions of responsibility as regards occupational safety and health such as the Occupational Safety and Health Delegates, the Occupational Safety and Health Resources and members of the emergency teams. In order to update knowledge both in legislation and ENDESA's own procedures, courses and the corresponding refreshers are given.

## Training in ethical conduct and criminal risk prevention

Regarding prevention of criminal risks, and after the initial campaign in 2015, new editions of the «Criminal Risks Prevention Model» have been launched, for the new incorporations, and by way of «recovery» for those who could not attend last year. This course, prescribed by the Audit area, covers the objective of publicising and raising awareness in people in the Company about the responsibilities and risks incurred in this area in performing typical duties, in order to prevent criminal risks.

ENDESA's Ethics Code and the Zero Tolerance to Corruption Plan involve performing training in their knowledge. In this regard, this year we can highlight the development and teaching of the online «EDE Code of Conduct» course, aimed at the people from Distribución.

### G4-SO4 G4-HR2 G4-DMA Training and education

## Employees who have received training on the fight against corruption, itemised by professional category (\*) Spain and Portugal

|  |     |      |
|--|-----|------|
| Executive training                       | no. | 25   |
|  | %   | 9%   |
| Middle management training               | no. | 182  |
|  | %   | 6.5% |
| Administrative and office staff training | no. | 248  |
|  | %   | 6.1% |
| Manual worker training                   | no. | 244  |
|  | %   | 10%  |

(\*) Criminal Risks Prevention Model.

## Environmental training

During 2016, environmental training has continued to be reinforced to fulfil the requirements established to renew the different ISO 14001 certificates and the Integrated System for Environmental Management, Energy and Indoor Environment Quality (SIGAEC) that the company has.

## Digitisation training

Immersed in a digitisation environment, the training in digital transformation has meant an important chapter where more than 11,142 hours have been given through various method-

ologies such as: *webinars, workshops, e-learning*, in-person classes, etc. To do this the training program called e-talent has been designed which aims to generate a cultural and attitude change. Through the «viralisers» identified through the program an impact on 15% of the workforce has been generated.

## Other training activities

Training in management, leadership and social skills has been transversally managed between the different businesses and support areas. It aims to improve the skills of the different categories and professional units, so that corporate culture is shared. During 2016, the investment has significantly increased exceeding 65,000 hours.

Another of ENDESA's fundamental commitments upheld throughout the years is technical training of employees. This allows their professional progress and gives them the necessary qualifications to perform their activity. Close to 379,000 hours of technical training have been given in 2016 in the Generation, Renewables, Distribution, Marketing, ICT, Procurement and Support Areas.

Belonging to a multinational group, ENDESA encourages language learning, mainly English and Italian, with a wide range of different types of language programs

### G4-HR2

## Training of the employees in policies and procedures related to relevant human rights for their activities

| Spain and Portugal  |       |      |     |
|---|-------|------|-----|
| Training of employees about policies and procedures related to human rights relevant for their activities | hours | 2014 | 106 |
|   |       | 2015 | 48  |
|   |       | 2016 | 200 |
| Employees that received training in human rights  | no.   | 2014 | 32  |
|   |       | 2015 | 6   |
|   |       | 2016 | 1   |
| Employees that received training in human rights  | %     | 2014 | 0   |
|   |       | 2015 | 0.1 |
|   |       | 2016 | 0   |

## Training security staff

G4-HR7 G4-DMA Safety measures

The safety services are provided by external staff and their organisation adapts to the coverage requirements of the services necessary to guarantee the Company assets at any given time.

In any case, these services are provided by properly accredited professionals authorised by the Ministry of the Interior. Part of their training includes aspects about private safety legislation, basic rights of people and human rights.

## 4. Attracting and retaining talent

ENDESA has carried out *Employer Branding* actions to improve the Company's positioning in the job market and continue to get known as an attractive place to work in. The focus in these recent years has been attracting young talent and, to do this, the Company has attended job fairs in different universities, international employment congresses and professional training centres. The presence in these forums has the aim of letting young people know the company's strong commitment to innovation and that it seeks to attract those profiles that fit the values of Enel Group: confidence, responsibility, innovation and proactivity.

During 2016, an ideas competition has been performed between university and vocational training students. It is the *Shadowing initiative*, which has allowed university students to spend the day with Company executives. The sponsorship of initiatives that promote the meeting of young talent from different countries, such as *PangeaUnleash 2016*, can be highlighted.

In 2016, 154 qualified young people have joined the company through the Scholarship program. This Program enhances their employability and allows them to put the knowledge acquired during their time at university into practice and start their professional career. 20% of those people have joined

the workforce at the end of their scholarship and actions are performed so that this percentage increases every year.

Wherever possible, ENDESA uses internal promotion to cover vacancies, giving preference to professionals with outstanding performance of their duties. The selection process enhances the culture of diversity and meritocracy in addition to the Company values.

ENDESA does not perform internal selection processes in each country but, on certain occasions, international mobility through the exchange of professionals between countries is encouraged among professionals. This aspect has been enhanced since the Company joined the Enel Group.

G4-LA1

The staff rotation rate in Spain has been 8.9%.

Below, information is given on the employees joining the workforce in last 3 years:

### New hires 2016 (%)

|                 |      |     |
|-----------------|------|-----|
| Total new hires | 2014 | 290 |
|                 | 2015 | 291 |
|                 | 2016 | 556 |



## New hires 2016 (%)

| Spain and Portugal                       |      |
|--|------|
| New hires under 30 years of age          | 25.2 |
| New hires between 30 and 50 years of age | 66.7 |
| New hires over 50                        | 8.1  |

## New hires by gender (%)

| Spain and Portugal |      |
|--------------------|------|
| Men                | 69.6 |
| Women              | 30.4 |

Below, information is given on contract termination both by gender and age:

**G4-LA1**

## Contract terminations by gender

| Spain and Portugal  |     |      |      |
|---|-----|------|------|
| Total women leaving workforce (resignation, redundancy and retirement)                                | no. | 2014 | 67   |
|   |     | 2015 | 132  |
|   |     | 2016 | 81   |
| Total men leaving the workforce (resignation, workforce in this age group redundancy and retirements) | no. | 2014 | 357  |
|   |     | 2015 | 439  |
|   |     | 2016 | 590  |
| Total women leaving compared to women in the workforce (%)  | %   | 2014 | 2.96 |
|   |     | 2015 | 6.15 |
|   |     | 2016 | 3.74 |
| Total men leaving compared to men in workforce (%)  | %   | 2014 | 4.33 |
|   |     | 2015 | 5.59 |
|   |     | 2016 | 7.84 |

## Contract terminations by age

| Spain and Portugal  |     |      |       |
|---|-----|------|-------|
| Total number of employees under 30 leaving workforce (resignation, redundancy and retirements)  | no. | 2014 | 0     |
|   |     | 2015 | 7     |
|   |     | 2016 | 3     |
| Total number of employees aged between 30 and 50 leaving workforce (resignation, redundancy and retirement)                                 | no. | 2014 | 18    |
|   |     | 2015 | 25    |
|   |     | 2016 | 56    |
| Total number of employees over 50 leaving workforce (resignation, redundancy and retirement)  | no. | 2014 | 406   |
|   |     | 2015 | 539   |
|   |     | 2016 | 612   |
| Total number of employees under 30 leaving workforce (resignation, redundancy and retirement) compared to total workforce in this age group | %   | 2014 | 0     |
|   |     | 2015 | 2.20  |
|   |     | 2016 | 1     |
| Total number of employees between 30 and 50 leaving workforce (resignation, compared to total workforce in this age group)                  | %   | 2014 | 0.30  |
|   |     | 2015 | 0.43  |
|   |     | 2016 | 0.96  |
| Total number of employees over 50 leaving the workforce (resignation, redundancy and retirement) compared to total                          | %   | 2014 | 10.04 |
|   |     | 2015 | 14.02 |
|   |     | 2016 | 17.15 |

## ENDESA performs the second edition of the «Ideas Move» (Las ideas se mueven) competition

After the success of the first edition in Catalonia, Madrid has staged the second edition of «Las Ideas se Mueven». It is an initiative jointly promoted by ENDESA and the Universidad-Empresa Foundation, with the aim of promoting generation of ideas related to energy, among young university students and professional training centres.



## Average seniority in the company of the employees who have left the Company in 2016

|  | Spain and Portugal |
|--|--------------------|
| Average seniority in the company of the male employees who have left the company during the year                           | 28.30              |
| Average seniority in the company of the female employees who have left the Company during the year                         | 20.89              |
| Average seniority in the company of the employees under 30 years of age who have left the company during the year          | 1.23               |
| Average seniority in the company of the employees between 30 and 50 years of age who have left the Company during the year | 12.72              |
| Average seniority in the company of the employees over 50 years of age who have left the Company during the year           | 31.52              |
| Average seniority in the company of all employees who have left the Company during the year                                | 27.02              |

## 4.1. International mobility

During 2016 ENDESA, as part of Enel Group, has continued with international mobility programs for employees with the aim of promoting development in international scenarios, expanding their global vision of the business is their technical knowledge.

The international mobility programs are efficiently managed and promote a global career, thus enhancing the Group's multinational character. In 2016, ENDESA managed 64 expatriate employee processes and 11 impatriate processes. Additionally, a further 18 international mobility processes were managed in Spain within Enel Group, outside the perimeter of ENDESA, S.A.

In these processes, special attention is paid to the following aspects:

- > Guaranteeing the expatriate staff maintains the standard of living of the country of origin.
- > Compensating for the «drawbacks» related to the expatriation.

- > Offering a significant benefits package regarding wellbeing.

Within the framework of complying with the diversity policy, special attention is paid to integration of the expatriates in the destination, by assigning a tutor/mentor during the expatriation period.

## 4.2. Personnel selection

**G4-EC6 G4-DMA Market presence**

ENDESA encourages employees to participate in its hiring processes, promoting internal mobility and providing opportunities for people looking for new learning and professional development opportunities according to their interests and personal motivation. For this purpose, priority is given to in-house job offer publication.

In 2016, 227 published internal selection processes were performed, involving close to 2,000 employees.

In cases where internal promotion is not possible, ENDESA contacts those people who have already had direct links with the Company's activities, through internships, scholarships or specific contracts. It may also consult various databases.

Where internal promotion is not possible the Company advertises on the job market. In 2016, more than 200 external processes were carried out in Spain and Portugal for permanent and temporary vacancies. They have mainly looked for professional profiles, with commercial, technological and scientific/technological vocation.

In 2016, ENDESA has continued the updating of the Join Us" space on the corporate website, which you can use to consult and apply for job offers. The change we have made allows simple and intuitive navigation and makes it easier for candidates to join.

|   |      |     |
|---|------|-----|
| Total employees who have joined the workforce during the year   | 2014 | 290 |
|   | 2015 | 291 |
|   | 2016 | 556 |
| Total local employees who have joined the workforce during the year   | 2014 | 281 |
|   | 2015 | 278 |
|   | 2016 | 509 |
| Total local <i>Senior Managers</i> (executives + middle management) who have joined the workforce during the year | 2014 | 111 |
|   | 2015 | 134 |
|   | 2016 | 275 |

In relation to senior management (members of the Executive Management Committee Direction) they come from the local community.

#### G4-EC6

|  |           |
|--|-----------|
| Number of senior executives from the local community | 12        |
| <b>Total number of senior executives</b>             | <b>16</b> |

## Rejection of forced and child labour

#### G4-DMA Child labour G4-DMA Forced labour

ENDESA expressly condemns child labour, in addition to forced labour through its Ethics Code, committing to strict compliance with international standards such as the UN Global Compact, with the aim of favouring a working environment that respects Human Rights. Likewise, ENDESA operates in an environment (Spain and Portugal) where there is a legislative framework that establishes the necessary guarantees so that violations regarding child or forced labour do not occur. ENDESA, to guarantee strict compliance with international standards and the principles of the ILO in this regard, has the most advanced prevention, control and monitoring mechanisms. As a result, no complaint has occurred in this area during 2016.

Likewise, this approach extends to all the contractor and supplier companies it has relations with. To do this, it incorporates Human Rights clauses in the general conditions of contract, assesses Human Rights aspects in the supplier qualification system and performs social audits to check compliance. For more information, see the *Supply chain chapter*.

## 4.3. Remuneration policy

#### G4-52 G4-LA13 G4-DMA Market presence

ENDESA's remuneration policy is in line with the national and international legislation regarding Corporate Governance. Its main objective is to retain, attract and motivate the best professionals, guaranteeing internal equality is preserved, external competition and establishing remuneration in accordance with the best market practices. In this regard, ENDESA's remuneration policy supervises that there is competitive and equal remuneration of its employees. The remuneration is determined by analysing the external competitiveness based on market salary surveys, using a job appraisal methodology with criteria from similar companies in terms of employee numbers and turnover.

Likewise, ENDESA's remuneration policy values the principles of meritocracy. ENDESA's meritocracy policy defines the management criteria for the salary adjustments based on the merit of people as differentiating criterion avoiding automatic adjustment due to seniority. In 2016, as in previous years, meritocracy policies have been applied for the groups of executives, pre-executives and agreement personnel. These processes have the chief purpose of awarding people's effort and their commitment to the Company, assigning salary adjustments in differentiated manner, whilst guaranteeing the minimums established in the Agreement. This policy, furthermore, enhances the role of the people manager in people recognition.

In this way, ENDESA's Remuneration Policy, regulated in the 4th Framework Agreement, establishes remuneration conditions for employees which is much greater than the basic salary established in Spain and Portugal and also includes the commitment of increasing the annual salary by 1% in 2016 and 2017. Additional mechanisms are also established for salary increase related to the Company's increase in EBIDTA, of the Company which may involve salary rises up to 2%, as well as an increase in efficiency payment.

## Company benefits not required by law

G4-LA2

### Company benefits not required by law

| Spain and Portugal  |                      |      |        |
|---|----------------------|------|--------|
| Medical care  | (thousands of euros) | 2014 | 3,201  |
|   |                      | 2015 | 3,420  |
|   |                      | 2016 | 3,908  |
| Cultural and leisure activities   | (thousands of euros) | 2014 | 731    |
|   |                      | 2015 | 948    |
|   |                      | 2016 | 931    |
| Financing of electrical consumption   | (thousands of euros) | 2014 | 16,519 |
|   |                      | 2015 | 15,121 |
|   |                      | 2016 | 13,427 |
| Insurance for non-professional accidents  | (thousands of euros) | 2014 | 1,335  |
|   |                      | 2015 | 516    |
|   |                      | 2016 | 1,085  |
| Pension funds   | (thousands of euros) | 2014 | 52,455 |
|   |                      | 2015 | 54,343 |
|   |                      | 2016 | 51,816 |
| Other (e.g., seniority bonus, special assistance for marriage, house purchase, etc.,) | (thousands of euros) | 2014 | 14,346 |
|   |                      | 2015 | 17,352 |
|   |                      | 2016 | 18,380 |
| Number of employees involved in the Company benefits policy                           |                      | 2014 | 9,452  |
|   |                      | 2015 | 9,898  |
|   |                      | 2016 | 9,575  |

## Flexible remuneration

It is worthy of mention that, in 2016, a Flexible Remuneration policy has been implemented in ENDESA as a new compensation tool for all employees who would like to take advantage of its advantages. This compensation system allows each employee to decide, voluntarily, how to receive part of their monetary remuneration so that it adapts to their personal and family needs at all times, taking advantage of the tax advantages of certain products and services. The products included in ENDESA's Flexible Remuneration Plan are: Health Insurance, Childcare vouchers, Meal vouchers, Transport vouchers and training.

## Overtime

Furthermore, through the different Collective Agreements, the Company Management and the Company Representation agree to the need to reduce overtime to an essential minimum, by establishing working organisation tools and systems that enable a permanent improvement in the organisation's efficiency, respecting in all cases current legislation and, in particular the provisions of RD1561/1995, of 21 September 1995. Thus, the Collective Agreement establishes should overtime be required, employees can choose between mechanisms of financial compensation or mechanisms of mixed compensation (financial and hours of rest).

## Salary gap

To perform a complete analysis of the salary gap between men and women, it is necessary to consider, in addition to the workforce composition, the salary evolution of the new members joining the Company at the different times in its history. Until 2000, before signing the Framework agreement, the salaries were defined based on the different collective. After 2000, with the signing of the 1st Framework agreement, homogeneous salary tables were defined for all new members in ENDESA; after 2013 with the signing of the 4th Framework Agreement, salary tables were implemented more in line with market practices for external recruitments. This effect, together with evolution of the workforce and the Company's current remuneration policies (meritocracy), indicate to us that the salary gap is narrowing, although there is still some way to go.

### Fixed average salary of men in euros in line with their professional category<sup>1</sup>

| Spain and Portugal              |      |         |
|---------------------------------|------|---------|
| Executives                      | 2014 | 184,781 |
|                                 | 2015 | 158,069 |
|                                 | 2016 | 152,507 |
| Middle management               | 2014 | 72,860  |
|                                 | 2015 | 71,208  |
|                                 | 2016 | 72,786  |
| Administrative and office staff | 2014 | 51,274  |
|                                 | 2015 | 52,320  |
|                                 | 2016 | 57,811  |
| Manual workers                  | 2014 | 43,590  |
|                                 | 2015 | 55,490  |
|                                 | 2016 | 52,575  |
| Media                           | 2014 | 59,755  |
|                                 | 2015 | 61,061  |
|                                 | 2016 | 62,912  |

<sup>1</sup> Average salary considering only fixed salaries without taking into consideration the variable part, compensations or similar.

### Average fixed salary of women in euros in line with their professional category

| Spain and Portugal              |      |         |
|---------------------------------|------|---------|
| Executives                      | 2014 | 127,947 |
|                                 | 2015 | 129,490 |
|                                 | 2016 | 123,942 |
| Middle management               | 2014 | 62,969  |
|                                 | 2015 | 63,158  |
|                                 | 2016 | 65,048  |
| Administrative and office staff | 2014 | 46,068  |
|                                 | 2015 | 47,564  |
|                                 | 2016 | 49,378  |
| Manual workers                  | 2014 | 43,740  |
|                                 | 2015 | 46,959  |
|                                 | 2016 | 45,698  |
| Media                           | 2014 | 53,334  |
|                                 | 2015 | 54,752  |
|                                 | 2016 | 56,688  |

### Fixed average salary of women compared with men (%)

| Spain and Portugal              |      |       |
|---------------------------------|------|-------|
| Executives                      | 2014 | 69.2  |
|                                 | 2015 | 81.9  |
|                                 | 2016 | 81.3  |
| Middle management               | 2014 | 86.4  |
|                                 | 2015 | 88.7  |
|                                 | 2016 | 89.4  |
| Administrative and office staff | 2014 | 89.8  |
|                                 | 2015 | 90.9  |
|                                 | 2016 | 85.4  |
| Manual workers                  | 2014 | 100.3 |
|                                 | 2015 | 84.6  |
|                                 | 2016 | 86.9  |
| Media                           | 2014 | 89.3  |
|                                 | 2015 | 89.7  |
|                                 | 2016 | 90.1  |

### Relation between the initial salary and minimum salary

|  | Mujeres   | Hombres   |
|--|-----------|-----------|
| Initial salary   | 23,446.45 | 23,446.45 |
| Minimum salary Spain                                       | 9,172.80  | 9,172.80  |
| Relation between the initial salary and the minimum salary | 2.56      | 2.56      |

## 4.4. Pensions

All employees of ENDESA Group companies are members of the Pension Plan unless they expressly renounce this. After signing the first Framework Agreement, on 25 October 2000, a defined-contribution pension system was defined for retirement, and defined benefits for death or incapacity. In 2016, the total number of employees with an individual pension fund sponsored by the company was 10,094.

There are additionally workers affected by agreements other than the Framework Agreement:

- > Defined-contribution for retirement and defined benefit for death and incapacity, with a benefit system and a contribution system different to that described above, the casuistry varies depending on the origin.
- > Defined benefit for all contingencies of retirement, death or incapacity, differentiating two large groups:
  - Electrical Ordinance workers of the former ENDESA. Closed group, where the predetermined character of the retirement and its insurance eliminate any risk.
  - Workers from Fecsa / Enher / HidroEmpordá. Closed group, where the benefit is linked to the evolution of the Consumer Price Index (CPI) and not insured with the exception of the benefits caused until 31 December 2011, the time when it subscribed to an insurance policy, to instrument said benefits, eliminating any future obligation with respect to said group.

For this group there is an internal fund, calculated according to the International Accounting Standards, which, together with the plan's assets cover the day-to-day of 100% of the obligation.

The administration of ENDESA's pension plans is carried out in accordance with the general limits of management and risk assumption laid down in the respective current legislations applicable in Spain.

ENDESA's pension plan is operated by a management company that takes into account socially responsible investment criteria.

Currently, the pension fund to which the pension plans promoted by ENDESA companies are adhered assumes those risks that are inherent to the assets in which they are invested, mainly:

- > The risks of the investment in fixed income assets arise both from the movement of the interest rates and the credit quality of the portfolio securities.

- > The variable-income investment risks derive from an incidence which may arise due to volatility (variations) in the price of said assets, which is greater than fixed income.
- > The risks of investment in financial instruments depend on the leverage they entail, which makes them particularly sensitive to the underlying price variations (reference asset).
- > The investments in assets denominated in currencies different to the euro entail an additional risk arising from the variations in exchange rate.
- > The investments in non-negotiable assets, as it is carried out in markets of limited liquidity and less efficiency, have valuation risks both in the methods used and the absence of contrast prices in the market.

# 5. Social dialogue

G4-LA8 G4-LA16 G4-11 G4-LA4

G4-DMA Complaint mechanisms on labour practices

G4-DMA Freedom of association and collective bargaining

G4-DMA Relations between workers and management G4-HR4

The total number of complaints relating to employment practices registered via formal mechanisms during the last three years is shown below:

G4-LA16 G4-HR12

|   |      |      | Spain and Portugal |
|---|------|------|--------------------|
| Total number of complaints relating to labour practices logged by formal complaint procedures during the reporting period       | (u.) | 2014 | 7,800              |
|   |      | 2015 | 7,900              |
|   |      | 2016 | 7,900              |
| Of the complaints identified, number of complaints tackled during the reporting period  | (u.) | 2014 | 7,800              |
|   |      | 2015 | 7,900              |
|   |      | 2016 | 7,900              |
| Of the complaints identified, number of complaints resolved during the reporting period   | (u.) | 2014 | 7,800              |
|   |      | 2015 | 7,900              |
|   |      | 2016 | 7,900              |
| Total number of complaints relating to labour practices logged before the reporting period resolved during the reporting period | (u.) | 2014 | 7,800              |
|   |      | 2015 | 7,900              |
|   |      | 2016 | 7,900              |

With respect to the collective bargaining procedures, in 2016, in ENDESA they were performed strictly complying with Spanish legislation and that of ENDESA in relation to reorganisations, transfers of workers between Group Companies, etc. In Portugal, the employment conditions are fixed through the employment contract.

G4-DMA Freedom of association and collective bargaining

G4-DMA Relations between the workers and management

The collective working conditions are regulated in ENDESA through the different collective agreements, which improve the employment legislation of each field in which the Company operates. The freedom of association of the employees is guaranteed in ENDESA and in all those contractor and supplier companies it has relations with.

G4-11

In Spain and Portugal there are 4 collective agreements in force at the end of 2016, which affect 9,103 people and covers 90.03% of the workforce. Likewise, 97.3% of ENDESA's contractor employees are covered by a collective agreement.

G4-LA4

G4-DMA Complaint mechanisms on labour practices

In accordance with Spanish employment legislation in force, as well as ENDESA's labour legislation in Spain (4th Collective Framework Agreement of ENDESA, Framework Agreement of Guarantees for ENDESA and its electricity subsidiaries domiciled in Spain, Voluntary Suspension Agreement), are established the criteria that must operate in the event that corporate reorganisation operations occur (Chapter III of the Framework Agreement of Guarantees). It also contemplates that the Company Representation will be notified with at least 30 days' notice before the efficacy of the corporate reorganisation operations.

The most relevant activities within the area of collective bargaining in 2015 have been

- > Negotiation and Agreement on the transfer of workers between different companies
- > Negotiation on reorganisation of Commercial Cycle.
- > Negotiation on the new organisation of the new ENDESA Distribución Eléctrica LV-MV network organisation.
- > Agreement for the inclusion of ENDESA Servicios in the functional scope of the 4<sup>th</sup> Collective Framework Agreement.

Within ENDESA, in Spain it should be highlighted that the negotiation of ENDESA's 5<sup>th</sup> Collective Framework Agreement shall begin on 1 July 2017.

Spain has formed part of the ILO since it was established in 1919. ENDESA's conventional legislation complies with the Agreements in force ratified by Spain.



## 6. Workplace environment

In September 2016, the Group's Workplace Environment and Safety Survey was simultaneously launched to all employees. The survey was formed by 42 open-type multiple choice questions so that the people can openly give their proposals on actions to be performed with the aim of improving the working environment.

The survey closed on 7 October and had high participation: 86% of employees took part and 54% of the total provided suggestions in the open question.

This survey seeks to know the level of sustainable commitment, the safety index and other key elements such as valuation of managers, knowledge of the strategy and safety policies.

The results of the Workplace Environment and Safety Survey, show a result equivalent to that obtained in the 2012 survey. In the same line, it remains the best appraisal that younger employees and those who have been the Company less time have. This year the questionnaire goes into depth regarding safety management and that we can highlight the high safety index obtained.

Once the results were obtained, they were shared with all the executives through different communication actions and access to the results platform. From that time on, work was done to define and implement action plans on different levels, from the first executive level.

The initiatives these plans form are aimed at enhancing the strengths and using them as levers to reinforce the identified areas of improvement. The most important are aimed at continuing to improve management skills in increasingly flexible and diverse environments.

# 7. Responsible people management

G4-DMA Diversity and equal opportunities

G4-DMA Employment

G4-DMA Equal pay between men and women

ENDESA groups all the corporate sustainability initiatives for people in the Corporate Social Responsibility Plan in Human Resources, called Senda Plan.



In the Senda Plan, every year various initiatives are developed in each area of the programme:

- > Managing diversity and equal opportunities.
- > Conciliation and flexibility
- > Integration of disabled persons and people at risk of social exclusion.
- > Promotion of volunteering.
- > Socially responsible investment.

## 7.1. ENDESA's commitment to diversity

G4-LA1 G4-DMA Non-discrimination Human Rights

G4-DMA Equal pay between women and men G4-HR3

### 7.1.1. Enel Group's policy of Diversity and Inclusion

ENDESA is firmly committed to the principles of gender equality and non-discrimination in the workplace. The aim is to be a company which respects and manages differences among its employees, guaranteeing equal treatment and opportunities.

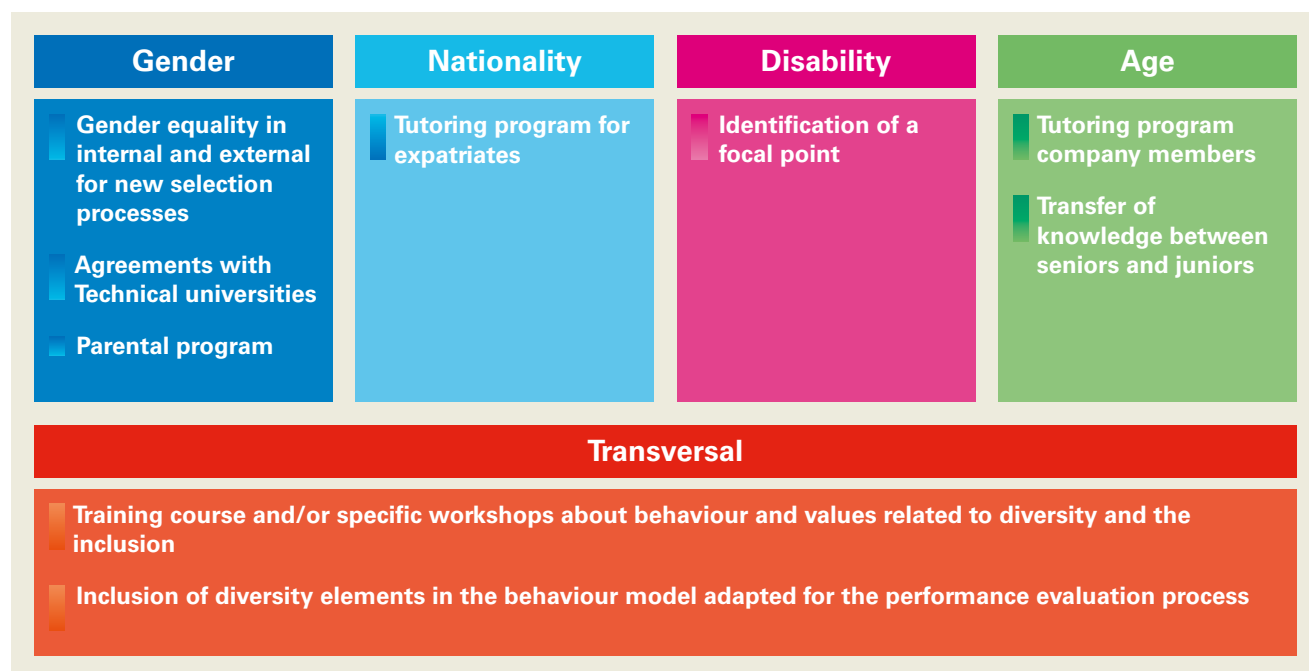
In this regard, Enel Group has a Diversity and Inclusion policy based on which ENDESA develops various programs and initiatives based on the following general principles:

- > ENDESA rejects all forms of discrimination and commits to guaranteeing and promoting diversity, inclusion and equal opportunities.
- > The Company Management will do everything possible to promote and uphold a climate of respect towards dignity, honour and individuality for people, and supervise the highest standards of confidentiality with respect to any type of information related to the private life of employees that it may come to know.

Likewise, also in compliance with the values and principles included in the Company's Ethics Code, the Group adopts the following main principles:

- > Non-discrimination.
- > Equal opportunities and of dignity for all forms of diversity.
- > Inclusion.
- > Conciliation of personal, family and professional life.

The Diversity and Inclusion policy includes the following action plan:



#### G4-HR3

In 2016, there have been no incident of discrimination in ENDESA, a fact the Company regularly informs to the Workers' Representative.

## 7.1.2. Promotion of gender equality

ENDESA promotes gender equality in all areas of the Company, especially in the positions of responsibility and personnel hiring.

Thus, the female hiring figure reached 30.45% in 2016.

With respect to the presence of women in positions of responsibility (considered as Executive and Middle management posts), this figure came to 29.4% in 2016, above the

28.7% of the previous year. The itemisation by country is as follows:

### Women executives and in middle management posts with respect to the total of executives and middle management

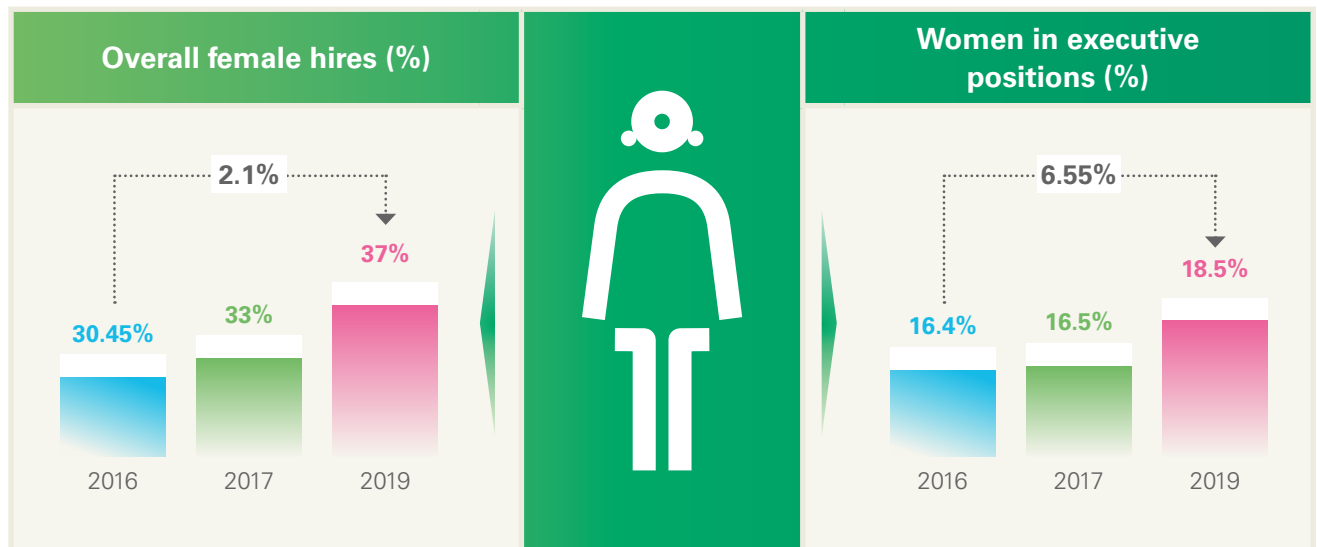
|          |       |
|----------|-------|
| Spain    | 29.3% |
| Portugal | 77.8% |

Considering only the highest positions, i.e. executive positions, the figure is 16.4% in 2016 (higher than that of 2015, positioned at 14.7%).

In order to continue promoting gender equality in this group, in addition to personnel contracts, ENDESA has set the following objectives in the new ENDESA 2017-2019 Sustainability Plan:

In line with ENDESA's impetus and desire to advance in the field of gender diversity, in 2014 ENDESA has signed an agreement with the Spanish Ministry of Health, Social Policy

## 2017-2019 Sustainability Plan: gender diversity



and Equality, with the aim of promoting and increasing the presence of women in posts of responsibility.

By virtue of this agreement, ENDESA has made a commitment to the Ministry through 21 actions concerning selection, training, promotion, gender pay gap, work-life balance and communication. During 2016, the actions stipulated in this agreement have been implemented in the fields of selection, promotion and conciliation, among others.

Associated with this agreement comes the quantitative aim to increase the participation of women in junior and senior management positions and in management committees to 20% in 2018. It should be highlighted that this quantitative objective has already been surpassed in 2016. In total, it has gone from 18% women in November 2014 to 21% in September 2016. This increase has enabled also fulfilling the object established in the 2016-2019 Sustainability Plan (20.8% in 2016) regarding this group.

On the other hand, ENDESA's 4<sup>th</sup> Collective Agreement in Spain, published in the Official State Gazette, and the negotiation of which concluded in 2013, includes an Equality Plan that contains Human Resource policies that promote the implementation of actions necessary to facilitate the incorporation of women in decision-making posts and with greater responsibility. The Plan guarantees the effective application of the equal pay principle and for a job with equal value and, in particular, the non-existence of pay differences due to gender.

The Plan also includes the possibility of adapting the working day through flexible working hours, temporary change of working hours, reduced working hours and leaves of absence to care for family members. It also contains specific measures for the protection of pregnancy and motherhood, and special measures to protect victims of gender-based violence. As an aid in the care of children, the Plan provides for agreements with nurseries and raises awareness on equality through information and communication.

Thus, in Spain all measures contained in the Equity Plan are undergoing constant development. The assessment and monitoring of these measures is carried out jointly by the Company's management and the trade unions, through the joint Equal Opportunities Commission provided for in the collective agreement.

Likewise, within the framework of the Diversity and Inclusion policy, a gender action plan has been designed. It is based on 3 main types of actions:

- > Increasing the percentage of selection processes that have a ratio of 50/50 women/men in the initial pool of candidates with respect to the total of selection process, both internal and external.
- > Implementing specific agreements with universities (science, technology, engineering and mathematics) to promote women studying technical courses and starting a joint initiative especially designed for women.

- > Implementing the *Parental Program*, a program aimed at balancing the needs people have as mothers and fathers and their aspirations of professional growth. It consists of a series of structured interviews between the employees, their people managers and *Business Partners* of Human Resources (hereinafter, HRBP) before and after the maternity/paternity experience to increase their value, both for the worker(s) and the Company.

As a result of ENDESA's commitment to equality, the Spanish Ministry of Health, Social Services and Equality awarded ENDESA in 2010, the "Equality in Companies" award. In 2016, the Ministry renewed said award.

ENDESA forms part of the Network of Companies that holds this award and has been actively involved in the various initiatives promoted by this Network.

ENDESA has been a signatory to the Women Empowerment Principles (WEPs; [www.WEPrinciples.org](http://www.WEPrinciples.org)) since 2010. It is actively involved in its dissemination and is a member of the working group of the Women Empowerment Principles together with other companies worldwide.



## Fight against gender-based violence

During 2016, the Company has continued to show its commitment for contributing to eradicating the problem of gender-based violence, offering its maximum collaboration to the Ministry by disseminating various awareness-raising and prevention campaigns in this area.

This year, in this same area, ENDESA has implemented a corporate volunteering program with gender-based violence victims, in collaboration with the Integra Foundation, a not-for-profit entity devoted to helping women who have suffered gender-based violence to get a job that allows them to start a new life and guarantee a decent future together with their families. The objective of the program is to give them back hope, self-esteem, independence and confidence taken away by abuse. As a result of this initiative, 11 women and 15 volunteers from Seville have participated (9 workshops given).

## 7.2. Conciliation of professional, personal and family life

G4-LA3

A 2016, a total of 857 employees took advantage of some line of action aimed at conciliation between professional, personal and family life in Spain and Portugal.

### Employees benefiting from some line of action aimed at conciliation of professional, personal and family life in 2016

|       |     |
|-------|-----|
| Men   | 364 |
| Women | 493 |

ENDESA continues to promote different lines of action to reinforce a flexible working environment and seeks to enable its employees to strike a balance between their personal, family and professional lives.

With the aim of encouraging women who have been mothers, at its Barcelona, Madrid and Seville offices, the Company provides breastfeeding rooms for nursing mothers to assist women who have become mothers. Women may use these intimate, quiet facilities to express breast milk after their maternity leave has expired and, therefore, do not need to end this practice.

As measures for striking a balance between personal and family life with working life, the current Collective Bargaining Agreement at ENDESA Spain provides for the adjustment of working hours to the employee's needs through flexible working hours, temporary change of working hours, reduced working hours, leaves of absence to care for family members, paid leave, unpaid leave and teleworking.

Since 2015, a set of services have been available to facilitate conciliation of employees in the Madrid office such as car cleaning service, dry cleaning services and shoe repair service and a service for personal formalities (accompany a family member to the doctor, wait for a tradesman in your home, etc.), a personalised nutrition service given by a nutritionist.

The aim in the coming years is to extend these services to the other cities where the Company is present to facilitate the conciliation of all our employees.

«Work from home». In line with fostering a family-friendly company, “work from home” represents for ENDESA one more step in its commitment to maintaining and developing a good work-life balance for its employees. In total, 163 employees have benefitted from this in Spain (119 in 2015).

**G4-LA3**

### Levels of employees returning to work and retention after maternity or paternity leave, by gender

|  |     |
|--|-----|
| Employees taking paternity leave   | 197 |
| Employees taking maternity leave   | 109 |
| Employees returning to work following paternity leave  | 196 |
| Employees returning to work following maternity leave  | 109 |
| Employees returning to work following paternity leave still working 12 months after their return | 193 |
| Employees returning to work following maternity leave still working 12 months after their return | 107 |

## 7.3. Commitment to people with different capabilities

ENDESA carries out various initiatives to integrate staff with disabilities. Specifically, in Spain the workforce contains a total of 78 disabled people.

In Spain, the following actions were carried out in 2016:

- > The collaboration agreements are maintained with the Adecco, Randstad, Prevent, Universia and Prodis Foundations. Together with these Foundations, various disability-related initiatives were rolled out, including:
  - Volunteer training actions targeting people at risk of social exclusion among which are disabled people, victims of gender-based violence and long-term unemployed.
  - Thanks to the collaboration agreement with the Fundación Prevent, we channelled the CVs of relatives of employees with disabilities, thus helping them with their job search.
  - Together with the Universia Foundation we are part of the Decision-making Committee that awards scholarships to students with disabilities. Thanks to a dona-



tion made by ENDESA, we contributed to the Univer-  
sia Foundation granting 162 scholarships to students  
with disabilities in its 10th edition.

- The new figure of *Human Resources People Business Partner* replaces the queries and suggestions mailbox for employees with disability in ENDESA, in order to give greater closeness, advise and give guidance on any type of doubt related to disability.
- > The Plan Familia, developed by the Adecco Foundation, continued. Through this plan, 74 employee families with a disabled member received various types of advice and therapy.

As an alternative to direct hiring, ENDESA has focused on indirect initiatives such as purchasing goods and services from special employment centres. This activity was valued at 2,209,794.70 euros in 2016.

## 7.4. Corporate volunteering

ENDESA commits to corporate volunteering and, therefore, it cooperates in the development of numerous social development projects with the involvement of sus employees. Corporate volunteering acts as a catalyst for the other initiatives which increase proximity and the involvement of the company with its stakeholders and provides development and commitment to the participants. Furthermore, it is a firm commitment to the development of the communities where it operates, thus contributing to the social, environmental and cultural spheres of each community.

In 2016, 10 volunteering projects have been performed with the participation of 290 volunteers and with more than 590 people benefitting.

ENDESA, as founding member of Voluntare, has continued in 2016 to support this international initiative to promote cor-

porate volunteering, formed by companies and entities of the third sector.



Given the good acceptance among employees and the return generated in the community where ENDESA operates, the following initiatives in Spain have been continued this year:

### Energy volunteering in ENDESA

ENDESA and ENDESA Foundation perform an energy volunteering Project in collaboration with the NGO Ecología y Desarrollo (ECODES), which is a social project in the field of energy, whereby employees have the chance of performing solidary action as volunteers, by going to homes that are in a vulnerable situation.

ENDESA's volunteers participate through two types of interventions: analysis of consumption and energy status of the homes, with training and recommendations for the families on how to optimise their energy bill and identifying situations of risk in electrical installations that will later be corrected by a certified installer.

The program is estimated to last for 13 months, expecting to reach a total of 1,140 beneficiaries (direct + indirect) at the end of 2017.





> **Energy volunteering.** It is a social project in the energy field that ENDESA is performing together with ECODES (Fundación Ecología y Desarrollo), and is aimed at homes that suffer energy poverty. Through this initiative, 30 families benefitted in 2016 and 27 volunteers took part in Barcelona and 14 in Zaragoza.

> **Volunteering and Skills.** It has the aim of demonstrating the development of professional skills acquired through performing volunteering activities. As a novelty in 2016, in As Pontes and Tenerife, the «Energy for the Future» project started. The aim of this initiative is improving the employability of young people at risk of social exclusion in the energy sector through training volunteering, aligned with the needs of the job market and close to the Company's world.

This volunteering activity enhances the development of volunteers' skills (innovation, team work, leadership or communication). In Tenerife there were 21 volunteers registered in the project and 60 beneficiaries. In As Pontes there were 5 registered volunteers and a total of 28 beneficiaries.

> **Coach Project.** In collaboration with the Exit Foundation, this volunteering aims to improve the employability of young people at risk of social exclusion, dealing with their self-esteem, motivation and professional guidance, using coaching or mentoring techniques. For young people. It is a great experience to discover the business world, and this acts as a great stimulus for them to continue studying. With this initiative, 43 people have benefitted in 2016 with the support of 45 ENDESA volunteers.



> **Company Solidarity Day.** ENDESA, as it has been doing since 2013, took part in the celebration of the 10th

edition of Company Solidarity Day with the aim of contributing to the development in the communities where ENDESA operates. In 2016, 10 ENDESA volunteers took part in Zaragoza in the Company Solidarity Day.



> **Sabes + si compartes lo que sabes (You know more if you share what you know) project.** This programme gives employees the opportunity to contribute to improving the social and occupational integration of people actively seeking employment. The skills, knowledge and experience of ENDESA's employees are enhanced through a training programme in which each individual volunteer is both trainer and trainee. In 2016, 138 people benefitted with the support of 12 ENDESA volunteers.

> **Solidarity races.** In 2016, ENDESA took part in two solidarity races: Il Atades Race «For a new school» (36 volunteers), and «There is a way out from domestic violence» race (25 volunteers).

> **Let's talk without barriers.** Project where volunteers who are native or bilingual in English or Italian, have conversation sessions, online or by telephone, with disabled university students.

> **Job launchers.** Program that consists of the participation in Job Launchers and Solidary Entrepreneurship of the Santa María la Real Foundation. The Launchers are a team of unemployed people who, under the coordination of a coach, organise themselves as a cooperative with employment as aim. Depending on the requirements of the members of the launchers, an action plan is defined where volunteers can take part in activities to motivate the unemployed people, develop their skills or provide knowledge in (entrepreneurship line and training line). In 2016, 11 volunteers from ENDESA have participated in Andalusia, Madrid, Bilbao and Galicia.

> **Women victims of gender-based violence.** Volunteering program, in collaboration with the Integra Foundation that seeks to improve the employability of women who are victims of gender-based violence through training workshops. The first edition of the program was in Seville, and 15 ENDESA volunteers took part, benefitting 11 women victims of gender-based violence.

> **Christmas collection campaign.** This campaign seeks to help disadvantaged people by collecting non-perishable food and hygiene products, in order to donate them to organisations like the Food Bank, Caritas, International Cooperation NGO and Toda Ayuda Foundation. In 2016, ENDESA performed this initiative in the following cities:

- Madrid: 553 toys and more than 135 kg of food were collected.
- Barcelona: 442 toys.
- Zaragoza: 70 toys.
- As Pontes (A Coruña): 370 kg of food.
- Canarias: 1,088 toys.

For more information, see the chapter: *Responsible Relations with the Communities*.

## 7.5. Socially responsible investment

ENDESA's pensions plan is operated by a fund manager which considers social responsible investment criteria. To this end, the fund manager has prepared and approved a Socially Responsible Investment Policy Statement, which summarises the framework within which the company activity is performed in this regard with the assets managed.

The Plan Fund manager shall incorporate environmental, social and good governance issues (ASG) in the investment analysis and decision-making processes. It is expected that the companies and issuers in which it will invest perform and carry out an ASG strategy which maximises, in the long-term, the value for shareholders and investors. This means that the companies must generate added value considering the investors' interests and also those of the employees, customers, suppliers, the community and the environment. It shall positively assess the membership of the companies to the United Nations Global Compact.

For more information, see section 4.4. *Pensions* of this chapter.

## 8. ENDESA: a safe and healthy environment

G4-DMA EUSS Health and safety at work G414 G4-14

ENDESA considers Occupational Safety and Health a priority objective and a fundamental value to be upheld at all times for all those who work for the Company, without distinction between own staff and its collaborating companies.

The integration of this objective in ENDESA's strategy is based on implementing Occupational Safety and Health policies in all companies forming the Group, the implementation of specific work plans that seek consolidation of the leadership model based on the example of the leader and the application of a single and global work conduct observation system.

ENDESA also performs annual initiatives within its long-term strategy to continuously improve the level of Occupational Safety and Health. The activities performed in 2016 within the framework of said strategy have been mainly centred on specific action plans against accident rate, maintaining and creating new alliances with the collaborator companies, and various action plans with contractor companies with high accident rates.

To guarantee that operations are safely performed, ENDESA has implemented a safety inspection plan which includes all Company levels. These inspections are partly performed by their own staff and partly through collaborators who have been previously trained in ENDESA's working procedures and in actions or behaviour which are not acceptable from an Occupational Health and Safety standpoint.

Additionally, Safety Walks are performed. These are visits to works that the business' Senior Management performs in company of the Joint Occupational Health and Safety service to check that the actions are performed in accordance with the established health and safety criteria.

The main activities performed in ENDESA in 2016, have been based on action plans against accident rate, in addition to on contractor companies. In this framework of action, audits have been performed on contractor companies.

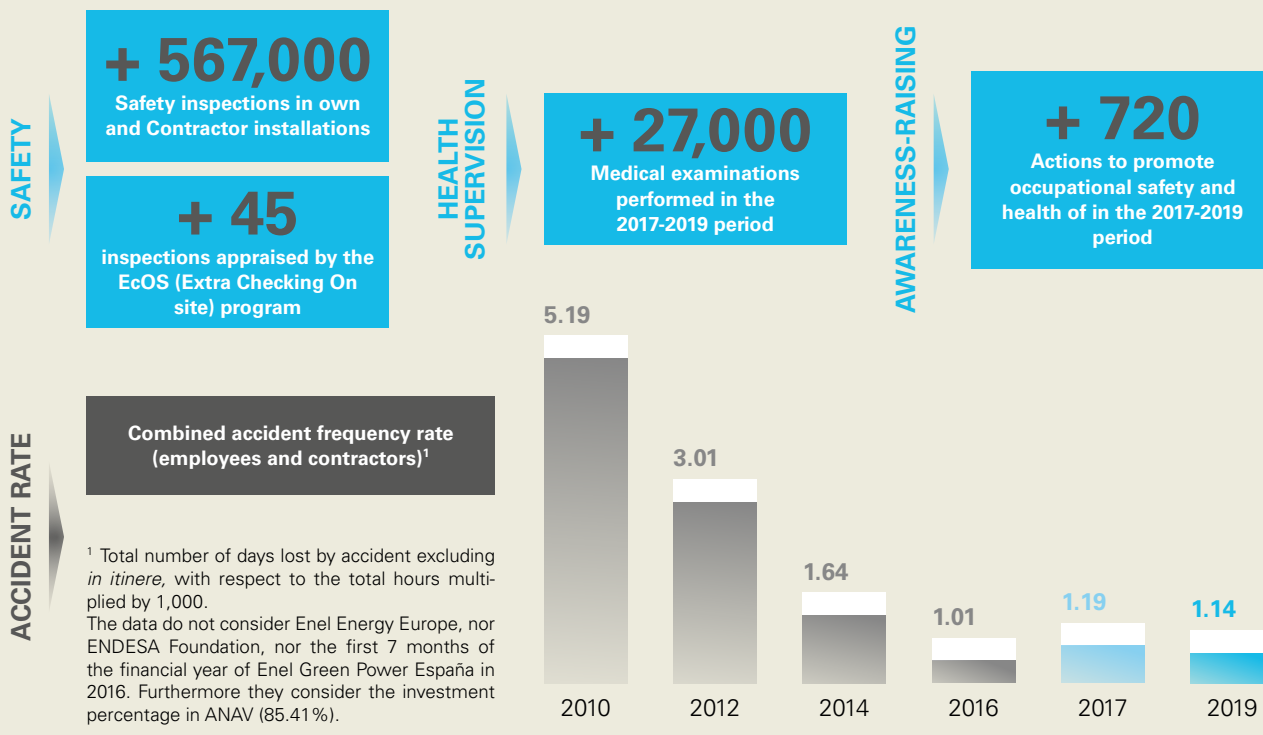
Likewise, events of great repercussion have continued to be held throughout ENDESA, such as the World Day for Health and Safety at Work and the Enel Group's International Health and Safety Week.

Finally, the Board of Directors also takes part in the supervision and control of occupational health and safety management. In this way, the Board receives a report in each monthly meeting with a summary of the most relevant occupational health and safety events arising, in order to perform constant monitoring. Likewise, the CEO of ENDESA conducts safety meetings on a regular basis to perform detailed monitoring of the accident rate indicators. Furthermore, with the aim of promoting occupational health and safety throughout the business, the objectives system to determine the variable remuneration of the different General Managers and the CEO also incorporate indicators and objectives in this regard.

With the aim of continuing to promote Occupational Safety and Health, ENDESA has set the following objectives in its ENDESA 2017-2019 Sustainability Plan:



## Occupational safety and health objectives in the ENDESA 2017-2019 Sustainability Plan



## 8.1. Common occupational Health and safety management

G4-LA7

The Delfos tool, designed by ENDESA, addresses all Occupational Health and Safety processes, accident management, medical check-ups, safety inspections, risk assessment, preventive planning, etc.

An important part of Delfos is to consolidate information in a Business Warehouse, the source of all Occupational Health and Safety information reporting, once supplied with monthly interfaces from the rest of the company management systems. All information sent is extracted homogeneously.

The main objective of Delfos is to provide Group companies and businesses with an efficient OHS management tool, to

collate information and to aid the development of a common culture to handle OHS issues while taking local considerations into account.

The Delfos Mobile application enables the performance of onsite safety inspections while relaying all data (photos, texts, geographic coordinates, etc.) in real time to the Delfos system and all persons involved in the process.

**99% of ENDESA's workforce in Spain and Portugal work in centres under an OHSAS18001 certificate environment**

## 8.2. Occupational health and safety, training and inspections



During 2016, ENDESA has given a total of 147,697 hours of occupational health and safety training to its own employees. 6,995 employees have attended occupational health and safety courses.

During 2016, 65,675 safety inspections have been performed in works and/or projects performed carried out by both the Company's own and contractors' employees, which had a significant impact on reducing the number of work-related accidents. Likewise, the number of Safety Walks performed in 2016 came to 247.

The Occupational Health and Safety management system indicates the need to investigate any accident or incident arising in the Company. For the case of serious, fatal or relevant accidents (including electrical accidents or work at a height) an investigation committee must be formed which analyses them in detail and under a Root Cause Analysis methodology. Likewise, for any relevant accident, once the causes have been clarified and the occupational health and safety measures to be taken are implemented to avoid this type of accident from repeating, a Lessons Learned report will be made aimed at informing the rest of the organisation on the measures to avoid that type of accidents.

## 8.3. Promoting a culture of occupational health and safety

For ENDESA, employee safety and well-being are of paramount importance.

The central theme of the World Safety and the Health Day in 2016 was occupational stress. In that regard, various actions were planned in coordination with the local areas of the SPM. In Iberia, various workshops were organised, practical advice given and a newsletter was published.

During the week of 14 to 20 November, the 8<sup>th</sup> edition of Enel Group's International Health & Safety Week was held. The subject chosen on this occasion was shared responsibility in health and safety.

In all activities we perform in our daily life, we must be fully aware of what do and the impact of our decisions and we must do this without distinguishing between own employees or collaborators.

This responsibility, although it starts with each employee must not stay there. We must all contribute to the conditions where our colleagues perform their work being as healthy and safe as possible.

The individual behaviour of each employee has an essential weight in this field as they are more efficient at Group level in the fight against accident rate.

Throughout the week, more than 150 initiatives were performed, both transversally and locally and in relation to different areas, such as safety in contractor companies, emergency drills, inspections and audits, health and wellbeing, etc.

Likewise, the Company promotes initiatives which contribute to promoting Occupational Safety and Health culture, mainly through different occupational safety and health campaigns performed from the Joint Occupational and Health Service. These activities include the following programs:

- > Respiratory diseases.
- > Stress prevention plan.
- > Sedentary lifestyle "Get training fit programme".
- > Healthy diet.
- > Osteo-muscular disorders.
- > Alcohol, smoking and other substances.
- > Cancer.
- > Cardiovascular diseases.

These programmes have helped towards considerably reducing the absenteeism rate due to disease and accidents in recent years, going from 3.23% in 2009 to 2.59% in 2016.

Likewise, a total of 8,903 medical check-ups were performed on ENDESA's employees to improve their health and prevent risks.

It serves as an example that in the framework of the shock plan against respiratory diseases, yet another year the flu vaccination plan was performed for all employees. A new leaflet was given to all the Company in the chapter on prevention of musculoskeletal diseases.

During 2016, different lines of action have been implemented, including:

- > Safety inspections.
- > *Vendor Rating* monitoring and application of sanctions in the event of safety breaches.
- > Awareness-raising seminars with contractors.
- > Extensive use of the APP5RO software in the Distribution business.
- > Communication and analysis of accidents and *near misses*.
- > Dissemination of research and good practices.
- > «Safety personalized plans», «Extra checking on site» in the Generation business.
- > Internal and external audits.
- > Intrinsic safety in the installations and equipment.
- > Appraisal of psychosocial factors.
- > Awareness-raising campaigns about different risks and unsafe acts.

It should be highlighted that the section on the appraisal of the psychosocial factors, after a prior information phase to the Occupational Safety and Health Committees, performed a new online survey accompanied by an awareness-raising video. Participation in the survey was over 80%.

## 8.4. Occupational health and safety committees

G4-LA5

The Company has formal Health and Safety committees where all Company workers are represented.

Within the ENDESA group in Spain, workers are consulted on, and involved in, OHS issues through their Occupational Risk Prevention Delegates in the following bodies:

- > The Commission for Participation in Preventive Activities Management Planning and Control.
- > Occupational Health and Safety Committees by Territory or Autonomous Community.
- > Occupational Health and Safety Committees by Province/ Area.
- > Singular Building Occupational Health and Safety Committees.
- > Thermal Power Plant Occupational Health and Safety Committees.
- > Mining Occupational Health and Safety Committees.

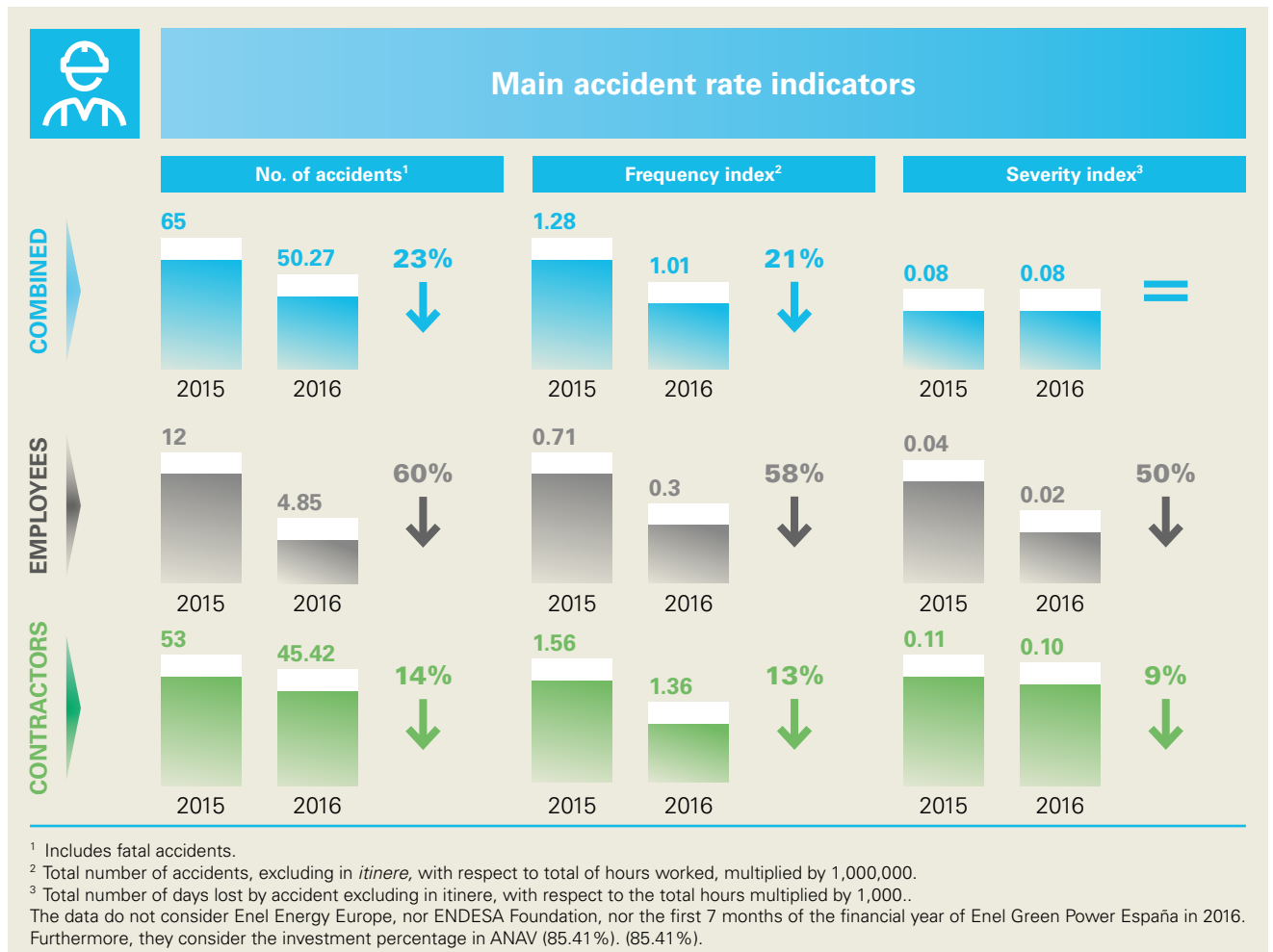
The organisation, structure and operation of these bodies are detailed in ENDESA's 4th Collective Framework Agreement.

## 8.5. Drop in accident rate

G4-LA6 EUSS | EU25

All of the work and effort carried out by ENDESA regarding occupational health and safety has led to a significant reduction in accidents in 2016 compared to 2015. In this regard, we should highlight:

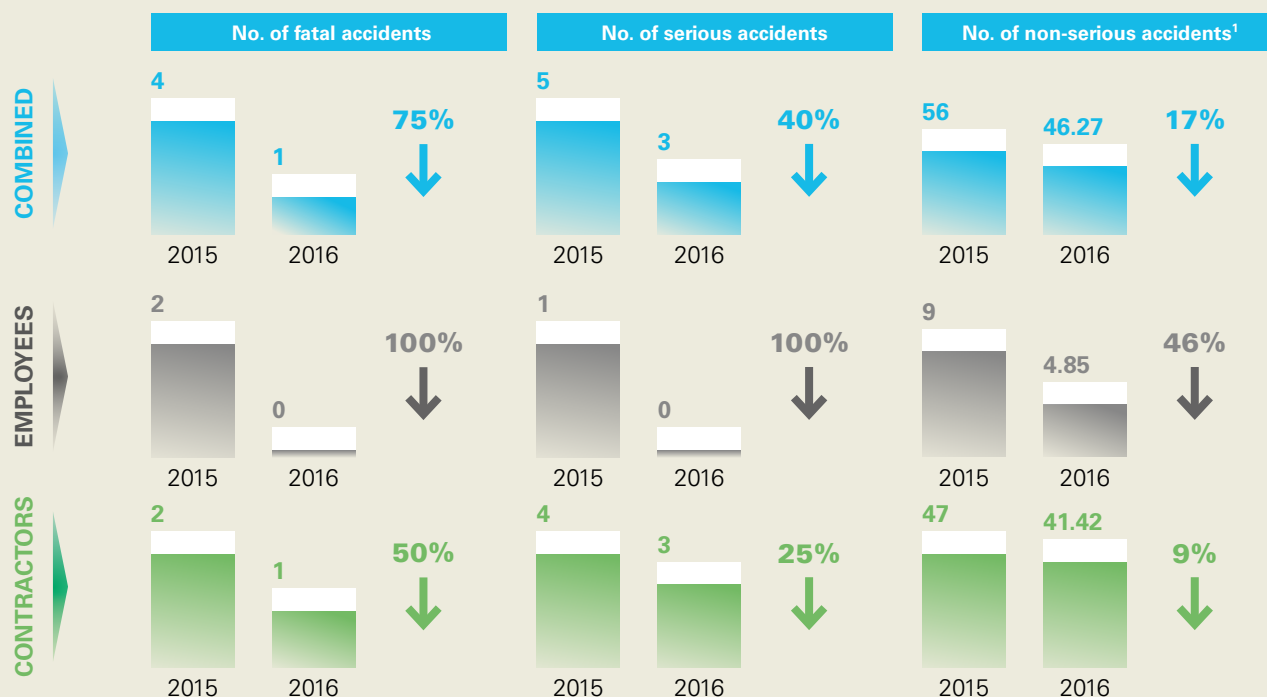
- > The reduction of 21% in combined frequency index (employees and contractors), with respect to 2015.
- > The reduction of 23% in the number of accidents of employees and contractors, with respect to 2015.
- > Although in 2016 fatal accidents of employees and contractors has been reduced by 75%, ENDESA laments the occurrence of a fatal accident (corresponding to a contractor).
- > The absenteeism index remains constant with respect to 2015.
- > The number of days lost of employees due to absence during the year has increased by 30%.







## Classification of accidents



<sup>1</sup> Includes accidents with leave between 2 and 30 days.



## Classification of accidents by gender

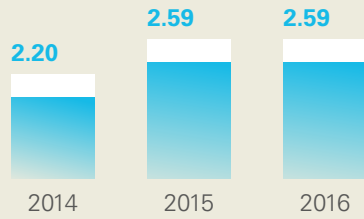
| Employees    |                        |          |                          |          |                              | Contractors |                        |                          |
|--------------|------------------------|----------|--------------------------|----------|------------------------------|-------------|------------------------|--------------------------|
|              | No. of fatal accidents |          | No. of serious accidents |          | No. of non-serious accidents |             | No. of fatal accidents | No. of serious accidents |
|              | 2015                   | 2016     | 2015                     | 2016     | 2015                         | 2016        | 2016                   | 2016                     |
| <b>Total</b> | <b>2</b>               | <b>0</b> | <b>1</b>                 | <b>0</b> | <b>9</b>                     | <b>4.85</b> | <b>1</b>               | <b>3</b>                 |
| Men          | 1                      | 0        | 1                        | 0        | 9                            | 3.85        | 1                      | 3                        |
| Women        | 1                      | 0        | 0                        | 0        | 0                            | 1           | 0                      | 0                        |

\* Until 2014, the data relating to ANAV, including number of accidents, hours worked and days lost are reported based on shareholding investment of ENDESA in the Association established by 85.41%.

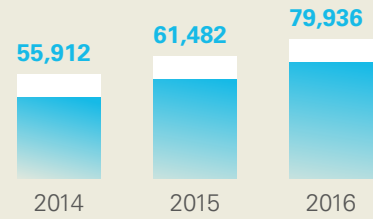


## Absenteeism and days lost by employees due to absence

Absenteeism rate of ENDESA employees<sup>1</sup> T.A.<sup>2</sup>

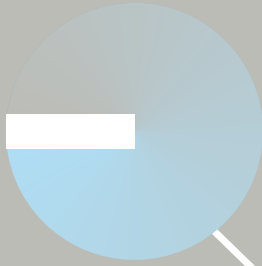


Days lost by ENDESA employees due to absence throughout the year



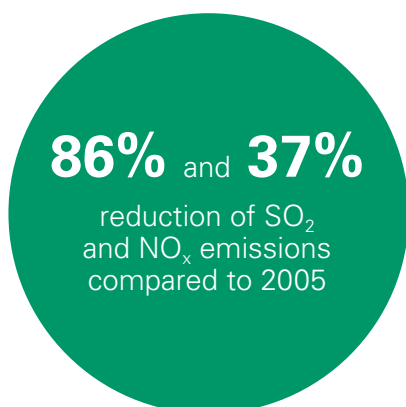
<sup>1</sup> The days lost due to absence do not include holidays or public holidays, nor the authorised absences due to family reasons (maternity leave, paternity leave, etc.), nor training leave.

<sup>2</sup> Total number of working days lost due to absence during the year with respect to total days worked by the group of employees during the same period, multiplied by 200,000 (this factor corresponds to 50 working weeks, 40 hours each week per 100 workers). This absenteeism rate does not include joint control companies which proportionally consolidate.






9\_Environmental  
Sustainability



## Compliance with 2016-2019 Sustainability Plan

|  | Objective  | 2016<br>(31/12) | 2016<br>Objective | Main actions   |
|--|--|-----------------|-------------------|--|
| <br>Environment | % Generation installations certified by ISO14001.                  | 100             | 100               | – Implementation of the Environmental Management System in multisite model.  |
|  | % Distribution installations certified by ISO14001.                | 100             | 100               | – Adaptation of the Environmental Management System to new standard ISO 14001:2015.  |
|  | Reduction of the direct environmental footprint of ENDESA (units). | 23,995          | 28,214            | – Adaptation of the environmental footprint to the organisational changes and greater robustness in design.  |
|  | Reduction of SO <sub>2</sub> emissions (g/kWh).                    | 0.88            | 1.30              | – Actions to adapt to the Industrial Emissions Directive 2010/75/EU and compliance with maximum emissions ceiling (installations included in the Transitional National Plan).  |
|  | Reduction of NO <sub>x</sub> emissions (g/kWh).                    | 1.19            | 1.40              | – Continuous improvement processes: installation of automatic measurement systems, primary measures in As Pontes power plant, improvements in denitrification and desulphurising processes in the CT Teruel, CT Compostilla and CC San Roque power plants. |
|  | Reduction of particle emissions (g/kWh).                           | 0.022           | 0.050             |  |
|  | Reduction of mercury emissions (mg/kWh).                           | 0.005           | 0.01              |  |



## Environment

| Objective   | 2016<br>(31/12) | 2016<br>Objective | Main actions   |
|---|-----------------|-------------------|--|
| Recycling and reuse of the combustion products of coal power plants.                | 15,8%           | 25%               | <ul style="list-style-type: none"> <li>– Obtaining the EuroGypsum quality certificates for gypsum from desulphurisation.</li> <li>– Certification of ashes under standard UNE-EN 450 1/2 for their use as additives in concrete manufacturing.</li> </ul>                    |
| Reduction of water consumption in generation (m <sup>3</sup> /GWh).                 | 869             | 1,000             | – ENDESA has adhered for the seventh year running to the CDP Water Disclosure and has obtained the “Leadership” level.   |
| Reduction of water consumption in offices (m <sup>3</sup> ).                        | 63,800          | 80,088            | – Environmental monitoring of 5 offices (Ribera del Loira, Vilanova, Borbolla, San Juan de Dios and Woermann).   |
| Reduction of waste production in offices (tons).                                    | 241.92          | 543.9             | <ul style="list-style-type: none"> <li>– Preparation of the design and content of the Guide of Good Practices for a More Sustainable Office.</li> <li>– Obtaining the energy qualification certificates of 26 offices (15% A and B; 58% C and D; 27% E, F and G).</li> </ul> |
| Reduction of energy consumption in offices (kWh).                                   | 31.394          | 33.4              | – Performing improvement actions on 6 offices with energy rating between E, F and G.   |
| Reduction of space in offices as a whole (m <sup>2</sup> ).                         | 20,348          | 15,000            | – Annual reduction of 20,348 m <sup>2</sup> of space used for offices (55% in Andalusia, 40% in Aragon and 5% in other areas).   |
| Reduction of CO <sub>2</sub> emissions in ENDESA's offices (tons).                  | 11,971          | 12,509,1          |  |
| Reduction of the operating fleet (number).  | 35              | 40                | – Implementation of 3 parking facilities for electric vehicles, with 139 places in total, in the offices of Ribera del Loira, Vilanova and Borbolla.   |
| Vehicles in operating fleet with Black box.   | 1,590           | 1,132             | – Implementation of 4 parking facilities for bicycles, with 124 places in total, in the offices of Ribera del Loira, Borbolla, Aznar Molina and Argualas.  |
| Implementation of the e-carsharing service.   | 96,872          | 80,000            | – Installation of 1,590 Black Box devices.   |
| Electric vehicles in ENDESA's total fleet.  | 78              | 83                | – Launch of the e-carsharing service: 20 electric vehicles currently in service and 96,872 km travelled in 2016 meaning more than 10 tons of CO <sub>2</sub> avoided.  |
| Reduction of the CO <sub>2</sub> emissions in ENDESA's fleet (tons).                | 6,461           | 6,336.96          |  |
| Number of biodiversity actions.   | 26              | 23                | – ENDESA Biodiversity Conservation Plan.   |
| Protection of the environment and biodiversity (awareness-raising and restoration). | 78,284          | 78,000            |  |



# 1. Environmental management

For ENDESA, sustainable development is a cornerstone of its strategy, including the protection of the environment as one of its most important commitments. This attitude is a sign of positive and differential identity for the Company, since it is an essential principle of behaviour that is expressly set down in its corporate values.

Through this commitment, the aim is to minimise the impact of ENDESA's industrial activity in the environment where it

operates. It fundamentally tackles aspects related to the fight against climate change, correct waste management, atmospheric emissions, dumping, polluted soils and other potential negative impacts.

Furthermore, ENDESA's environmental management has the objective of the sustainable use of natural and energy resources, committing to protecting biodiversity and the ecosystems of the environments where it operates.

## ENDESA participates as strategic partner in the National Environment Congress, CONAMA

The 13<sup>th</sup> edition of CONAMA, a congress held every two years since 1992, has developed under the motto "The Answer is Green". The opening ceremony had the participation of the Minister of Agriculture and Fishing, Food and the Environment, Isabel García Tejerina, and José Casas, Director-General of Institutional Relations and Regulation of ENDESA, among other figures from the worlds of politics and business.

In addition to taking part in different working groups of the technical sessions, ENDESA had a stand where it presented the Company's environmental projects to those attending.

As strategic partner, ENDESA has reinforced its presence in CONAMA with the organisation of a Dynamic Room under the motto "Our experience powers your world." During the session, held on 30 November, different speeches were given where it spoke of the Company's synergies with biodiversity and climate change. Some environmental solutions that ENDESA offers its customers were also stated and it explained how the UN Sustainable Development Objectives represent an opportunity to lay the basis for transforming the future of energy and promoting a more sustainable and responsible energy model.

During the Congress, in the Idea Accelerator Space, ENDESA has led a dynamisation activity in order to provide solutions to the challenge posed on sustainable mobility from the standpoint of Circular Economy.



From left to right: David Corregidor, Environment Director of ENDESA; Gonzalo Echagüe Méndez de Vigo, President of the CONAMA Foundation; Isabel García Tejerina, Minister of Agriculture and Fishing, Food and the Environment, and José Casas, Director-General of Institutions and Regulation of ENDESA.



The assessment of the environmental risks associated to execution of Company activities and the environmental certifications granted by external bodies help to ensure excellence in ENDESA's environmental management, which is integrated and aligned with its corporate strategy.

Result of this commitment to protect the environment, ENDESA has taken part, yet another edition, as strategic partner in the National Environment Congress, CONAMA, one of the most important international forums on the environment and climate change, held in Madrid from November 28<sup>th</sup> to December 1<sup>st</sup>.

## 1.1. ENDESA's Environmental Policy

ENDESA approved and published its first environmental policy in 1998. Since then, it has evolved to adapt the current environmental concerns.

ENDESA considers environmental excellence to be an essential value of its business culture. With this in mind, it operates in a way that respects the environment and following principles of sustainable development. It is also firmly committed to conservation and the sustainable use of the resources it uses.

In compliance of its environmental commitments, ENDESA applies the following basic principles of action, which lay the basis for its environmental policy:

## 1.2. Environmental Objectives

G4-14

The Enel Group has established a set of quantitative environmental objectives for the main environmental indicators for the entire Group, including ENDESA's facilities, setting a timeframe until 2020 and taking the 2010 values as reference. These objectives are:

- > Becoming a "carbon neutral" company in 2050.
- > Reduction of specific NO<sub>x</sub> and SO<sub>2</sub> emissions by 30%.
- > Reduction of specific particle emissions by 30%.
- > Reduction of specific water consumption by 30%.
- > Reduction of waste produced by 20%, taking 2015 as year of reference.
- > Reduction of the specific CO<sub>2</sub> emissions in 25% taking 2007 as reference.

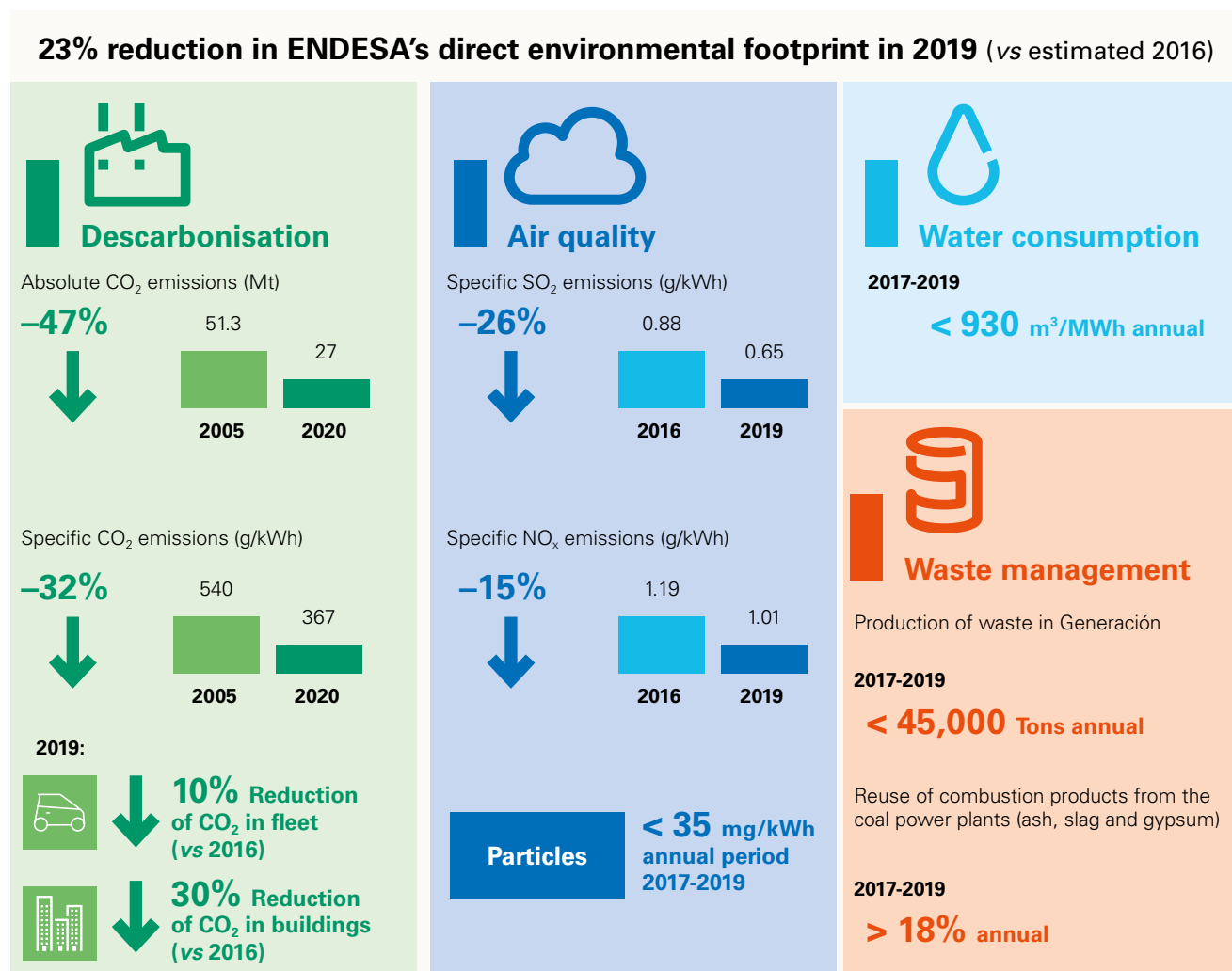
ENDESA contributes to achieving said Group objectives, but additionally, and as reinforcement of its commitment to ex-



### ENDESA's environmental policy Basic principles of action

- Integrating environmental management and the concept of sustainable development in the Company's corporate strategy, using environmental criteria documented in the planning and decision-making processes, in addition to in the analysis process of new business opportunities, merger processes or new takeovers.
- Maintaining, in all its centres, permanent control of compliance with current legislation in addition to the voluntary agreements acquired and periodically verifying the environmental behaviour and safety of the installations, informing of the results obtained.
- Establishing adequate management systems based on continuous improvement and aimed at preventing pollution.
- Sustainably using the energy, water and raw material resources and measuring and reducing the environmental impact by applying the best available techniques and practices.
- Protecting, conserving and encouraging biodiversity, ecosystems and their services in the operations related to their activity, reducing negative impacts to a minimum and compensating the residual impacts, aiming towards the objective of No Net Loss of Biodiversity.
- Contributing in the fight against climate change through progressive decarbonisation of the energy mix, encouraging the development of renewable energies, energy efficiency and application of new technologies.
- Promoting increased awareness regarding environmental protection, performing external and internal training actions collaborating with the authorities, the institutions and the citizen associations in the places where it operates.
- Establishing a constructive dialogue with the Public Administrations, official bodies, shareholders, customers, local communities and other stakeholders.
- Requiring its contractors and suppliers to implement environmental policies based on those same principles.

cellent environmental management, ENDESA has set the following environmental objectives for 2019 in the 2017-2019 Sustainability Plan:



## 1.3. 1.3. Significant investment effort

G4-DMA General G4-EN31

ENDESA makes a significant effort to achieve excellence in environmental management.

Thus, during 2016, ENDESA's activities in environmental activities have meant an increase of 28.6%, with respect to 2015, which has contributed to an increase in accumulated investment of 5.8% in 2016.

### Annual gross investment for Environment

|                                       | (Million euros) |           | % Var.      |
|---------------------------------------|-----------------|-----------|-------------|
|                                       | 2016            | 2015      |             |
| <b>Business in Spain and Portugal</b> | <b>108</b>      | <b>84</b> | <b>28.6</b> |

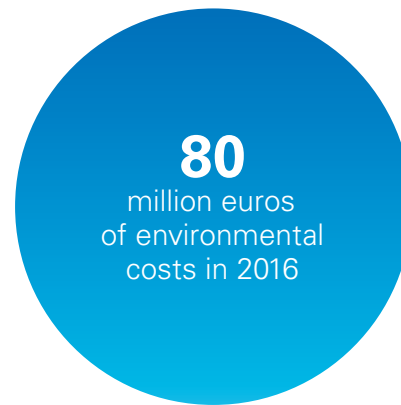
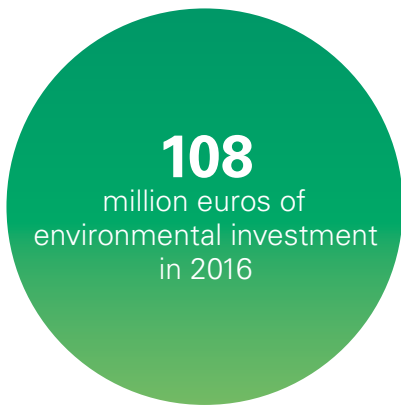
### Accumulated Gross Investment Environment

|                                       | (Million euros) |              | % Var.     |
|---------------------------------------|-----------------|--------------|------------|
|                                       | 2016            | 2015         |            |
| <b>Business in Spain and Portugal</b> | <b>1,525</b>    | <b>1,441</b> | <b>5.8</b> |

### Annual Environment costs

|   | (Million euros) |           | % Var.        |
|---|-----------------|-----------|---------------|
|   | 2016            | 2015      |               |
| <b>Business in Spain and Portugal<sup>1</sup></b> | <b>80</b>       | <b>99</b> | <b>(19.2)</b> |

<sup>1</sup> Of the costs related to environmental activities, 25 million euros in 2016 and 41 million euros in 2015 correspond to endowments of amortisations of the investments.



#### G4-EN31

| Itemisation of investments    | 2016<br>(Million euros)* |
|-------------------------------|--------------------------|
| Waste management              | 2.6                      |
| Protection of atmospheric air | 79.5                     |
| Protection of biodiversity    | 3.9                      |

\* The itemisation only includes the most relevant investments and applies criteria other than those established in the General Accounting Plan to calculate the total investments in the Environment (108 million euros).

## 1.4. Management of environmental risks and impacts

#### G4-EC2

In order to comply with the obligations pursuant to the Spanish Environmental Responsibility Act, although the regulatory framework accompanying this Act is still not completely finalised, since the Ministerial Order that sets the deadlines is still lacking, ENDESA initiated the MIRAT project in 2014. The aim of this project is to establish the financial guarantee required by this Act for conventional thermal and combined cycle plants with a thermal power > 50 MW by performing an environmental risks analysis.

The methodology used to perform the environmental risks analysis has been created on a sector level and has been approved by the Ministry of Agriculture and Fishing, Food and the Environment of Spain.

Subsequently, and in accordance with the periods established in the pending regulatory implementation, the man-

datory financial guarantee shall be set if so required in light of the results of the environmental risks analyses.

As part of its commitment to protecting the environment, the Company has an obligation to resolve its environmental liabilities. With this in mind, the environmental liabilities of each facility are identified as part of their environmental management programs. This task is reflected in their elimination, final disposal or reuse.

Environmental liabilities may be classified as high, average or low, depending on their potential environmental impact, risk for people and their scope and surface area.

In 2015, the demolition tasks for the old thermal power plants of Badalona and Sant Adrià finalised. The work has commenced to recover the soil and groundwater with the aim of restoring the site to the conditions prior to the start of any industrial activity, works which have continued during 2016.

## 1.5. Environmental management systems

ENDESA is committed to achieving excellence in the environmental management of its business activity through the value chain. Hence, its 2016-2019 Sustainability Plan established the objective of maintaining 100% of its generation and distribution facilities certified for International Standard ISO 14001. This objective, which has been fully fulfilled in 2016, is maintained in the new 2017-2019 Sustainability Plan.

## 1.5.1. 1.5.1. Certification of environmental management systems

### 1.5.1.1. Generation

At year-end 2016, 100% of ENDESA's installed capacity in Spain and Portugal was ISO 14001 certified, and all of its port terminals and mining operations.

In 2016, ENDESA obtained certification of the Environmental management system under Standard ISO14001 in *multisite* model for all electricity production in the thermal and hydroelectric production centres. This has made it possible to achieve uniformity and process homogenisation, establishing common goals and proposing the actions necessary for continuous improvement.

A series of activities are planned for 2017. These seek continuous improvement of the management system:

- > Start of system adaptation to the new standard ISO 14001:2015, with the aim of completing it in 2018.
- > Integration of the environmental management system with the quality and safety and health management system of the generation thermal power plants. This is yet a further step forward in ENDESA's commitment to the best international control and management standards.

Likewise, 78.3% of the installed net power or capacity of all ENDESA thermal power plants is produced in plants registered with the European EcoManagement and Audit Scheme (hereinafter, EMAS).

### Certification of the environmental management system according to standard ISO 14001



**100%** of fossil fuel generation



**100%** of hydroelectric and renewable generation



**100%** of the active mining activity



**100%** of the port terminals



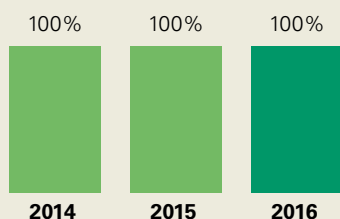
**100%** of the electricity distribution activity



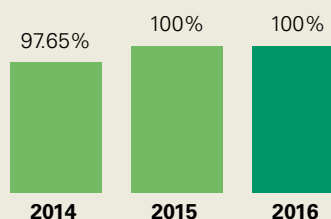
**16** corporate offices and office buildings

### Environmental management systems certified by ISO 14001

Energy produced in certified facilities



Certified power





## ENDESA obtains the multisite environmental certificate for its 152 generation power plants

In a record time of 14 months, ENDESA has achieved the AENOR Multisite Environmental Certification of all its Spanish electricity production facilities. It is a single certificate for all the Company's generation facilities, which allows homogenising the operating processes and systems and favours synergies between facilities.

During this time, it has managed to adapt the existing environmental certifications ISO 14001 in each of the 152 production centres under the same measurement parameters. Among the advantages, the new recognition enables an objective analysis of all ENDESA production centres irrespective of the technology used in each facility. Furthermore, it allows a considerable simplification of procedures with the consequent saving of costs.

In total, there are 125 hydroelectric power plants and 27 thermal power plants.

For the mining and port terminal management activity, and the electricity distribution activity, ENDESA has upheld a high level of excellence in 2016, keeping certification in all facilities. Likewise, 67% of the port terminals are registered in EMAS.

It has additionally worked to update certain environmental technical instructions related to achieving improvement in the environmental performance of the organisation (e.g. in waste management and inspection of temporary storage sites, operational control of fluorinated gases and execution of environmental inspections of works and outsourced services). It has also implemented a new computer app which supports environmental complaints management, speeding up and standardising their resolution.

### 1.5.1.2. Distribution

All transformation and distribution activities in Spain are included within the scope of the ISO 14001 certification of ENDESA Distribución Eléctrica.

2016 has seen the start of the process of adapting the management system to the new ISO 14001:2015 standard, including specialised training actions for key personnel and publication of the first procedures already adapted to the new requirements.

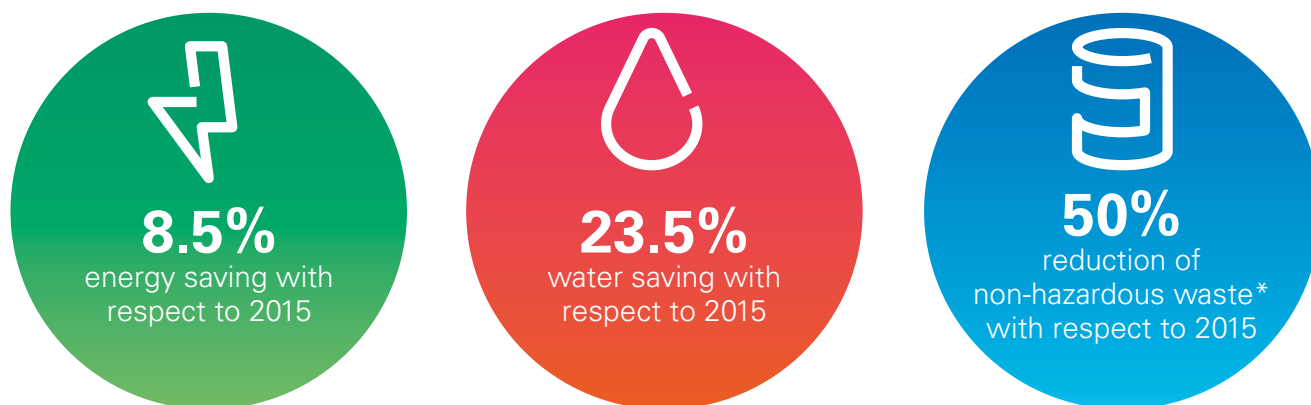
In July 2016, ENDESA Distribución published (for the first time) its own Environmental Policy. This specified strategic environmental objectives specifically related to distribution activities and infrastructures. This document is sent to the most relevant suppliers and collaborators, in order to make them participants in the environmental protection and pollution prevention commitment.

### 1.5.1.3. ENDESA offices

The offices have a triple certification: Energy Efficiency Management (ISO 50001), Environmental Management (ISO 14001) and Indoor Environmental Quality (UNE 171330-3), which in 2016 has been maintained in 16 of the main offices, covering 60% of the workforce who work in them. It is a mature system that intends to expand its coverage to more offices, and therefore, currently 24 of them already operate following system guidelines.

During 2016, significant work has been performed to improve and simplify the SIGAEC. This has meant a homogenisation and reduction of procedures, technical instructions and records, which will allow more efficient management of the entire system. We can highlight, among the simplifica-

## Reduction of the environmental footprint in buildings of the SIGAEC



\* Except for the plastic and metal contained which have been 7% and 8%, respectively

tions performed, the passage to a single *multisite certification* for the building certified in Indoor Environmental Quality according to UNE 171330-3.

The actions performed in ENDESA office buildings during 2016 have allowed reducing their environmental footprint, especially in 24 buildings that are currently within the Integrated Environmental, Energy and Indoor Environmental Quality Management System, (SIGAEC).

As in previous years, various actions have been performed for training and awareness-raising, energy efficiency and indoor environmental quality to encourage the principles of the management systems. These include:

- > Course for Building Energy Managers (in-person) in the ENDESA head office. The training was aimed at Energy Managers of the buildings, with an eminently practical content, and at identifying improvements and proposals for energy saving.
- > Preparation of the design and contents of the *Good Practices for a more Sustainable Office Guide* promoting a sustainable culture, strengthening commitment to responsible consumption and enlisting users in the objectives of reducing consumption established in the systems.

### The ENDESA Head Office receives the distinction of Sustainable Building of Madrid

The Community of Madrid has awarded the “Sustainable Building” distinction to the ENDESA Head Office. The “Sustainable Building” awards were created by the Madrid Government in 2015 with the aim of promoting energy and environmental improvement of the buildings, in terms of energy impact both outside and inside.

In the thirteen years the building has been working, ENDESA has committed to its efficient and sustainable management, whilst seeking to improve its maintenance, conservation, use and management. It considered the climate, topographical and environmental conditions of the sun to achieve high energy efficiency which has been recognised with different bioclimatic architecture awards, especially due to the innovative air conditioning system and its double-glazing system with an acoustic, thermal and solar insulation effect. It was the first building in Spain to achieve the triple energy, environmental and quality certification system of indoor air in 2011.



## 1.5.2. Environmental authorisations

In 2015, ENDESA obtained the Decision from the Environment Department of Galicia declaring the equipment installation project for the denitrification of combustion gases in the As Pontes power plant to be a non-substantial modification of the Integrated Environmental Permit of that power plant. After this, ENDESA Generación, in 2016, started the simplified environmental impact appraisal procedures of said project. This initiative aims to reduce nitrogen oxide (NOx) emission levels below the limits indicated in the European Industrial Emissions Directive.

On the other hand, the work to install equipment necessary to comply with both nitrogen oxide and sulphur oxide levels indicated in that Directive in the case of the Litoral de Almería power plant, have progressed as anticipated in their planning, producing various requests for partial commissioning to the Competent Authority for Industry.

During 2015, ENDESA applied to the Ministry of Industry, Energy and Tourism for the authorisation to close unit 2 of the Compostilla power plant (León), once its useful life was over. The approval from the Directorate-General of Energy Policy and Mining of that same ministry granted a 4-year period to demolish that generator unit. Before the start of the demolition works, it is necessary to have the corresponding environmental authorisation. For that reason, during 2016, ENDESA Generación started the process to assess the simplified environmental impact of this project.

Furthermore, during this same year, the necessary authorisations been processed to start the demolition work of the Foix power plant after 2017.

## 1.6. Management of nuclear activity

ENDESA has always been firmly committed to the safe management of its nuclear activity, and this is shown in its nuclear policy, approved by the Board of Directors in 2011 and published on the website of the companies that operate in this activity.

This policy establishes the commitment to act in such a way that all the nuclear investment projects, whether these are

as with ENDESA as majority or minority shareholder, include the following as their main priorities: the safety and protection of workers, the general public and the environment and to promote excellence in all activities beyond mere legal compliance.

### 1.6.1. Risk prevention and management

**G4-PR1 G4-DMA Discharges and waste EUSS**

ENDESA carries out corporate governance activities for the companies that operate in nuclear energy plants it owns and has implemented a monitoring system to ensure compliance with the policy and information to the senior management.

The stress tests concerning safety margins, which were performed in Spain and throughout the European Union immediately after the Fukushima accident, measured the safety margins in extreme scenarios (earthquakes, flooding, complete power cuts or absence of water for cooling the reactors) in order to check the plants' response and whether measures were necessary to make them more robust in this scenario.

As a result of this exercise a series of improvements were identified that are being implemented in all ENDESA's plants. These improvements include, for example, the installation of new contention building protection systems as ultimate barrier to the release of radioactive material, the availability of mobile diesel generator units that can be easily connected to the plant in the event of a complete blackout and the construction of a new centre for emergency management. Throughout 2017, the installation will conclude of filtered venting systems of the contention building atmosphere, taking as concluded the implementation of the post-Fukushima improvements system.

Following the specific technical features of the facilities, ENDESA'S nuclear plants have a continuous monitoring and control system in place for liquid and gas discharges, with very strict limits established by the regulatory body, the Nuclear Safety Council, designed to prevent the environment and the population from being affected. Furthermore, as stated in these specifications, radiation monitoring is carried out of the surrounding environment by analysing the air, the soil and widely sampling and analysing foods. These environmental controls are monitored and closely inspected by the regulatory body.



## 1.6.2. Emergency management

### G4-DMA EUSS Disaster/Emergency Planning and Response

All of ENDESA's nuclear plants are prepared for emergency situations with the resources and procedures defined in its Internal Emergency Plan, which is structured according to State regulations. Furthermore, all the measures adopted in preparation for emergencies are coordinated with the State's External Emergency Plans.

The measures to protect the population in the event of an actual emergency are defined by the state authorities following the advice of the nuclear regulatory body and based on the continuous information provided by the emergency centres of the affected nuclear plant and on their own information systems, and the characterisation of the emergency situation ranging from Pre-alert to General Emergency. Preparation for emergencies is guaranteed through regular exercises and specific training of all the intervening staff.

The regulatory body maintains a supervisory system of plant safety, called SISC, the results of which are updated on quarterly basis, and its results and the rating of each one of the power plants are published on its website ([https://www.csn.es/sisc/index\\_i.do](https://www.csn.es/sisc/index_i.do)). One of the areas assessed is preparation for emergencies and there are three indicators: E1, E2 and E3 that characterise the situation of each power plant in this area.

## 1.6.3. Decommissioning

### G4-DMS EUSS Plant Decommissioning

In Spain, the State is responsible for the decommissioning of nuclear plants and the management of radioactive waste, including spent nuclear fuel. The state-owned company, ENRESA, is responsible for this task.

The General Radioactive Waste Plan, an official document approved by the Ministry of Industry which is currently in its sixth edition, describes the scope, planning and economic cases for the fund provisions for decommissioning and managing the radioactive waste in all Spanish nuclear plants. This fund is contributed to monthly by the owners of the nuclear.

## 1.7. Environmental sanctions

### G4-EN29

Despite ENDESA'S efforts to go beyond the environmental legislation, during 2016 some environmental incidents have been recorded.

For more information, see chapter *Learning about ENDESA*, section 5.7.

| Number of Environmental Sanctions 2016              |    | Litigations pending | New litigations started during the reporting period | Litigations closed during the reporting period |
|---|----|---------------------|---|--|
| Air and climate                                     | n. | 2                   | 1   | 0  |
| Waste waters  | n. | 1                   | 0   | 0  |
| Waste   | n. | 10                  | 3   | 3  |
| Soil, groundwater and surface water                 | n. | 33                  | 0   | 2  |
| Noise and vibrations                                | n. | 11                  | 3   | 4  |
| Biodiversity and landscape                          | n. | 51                  | 7   | 17   |
| Radiations (including electric and magnetic fields) | n. | 3                   | 0   | 0  |
| Other   | n. | 0                   | 0   | 0  |
| <b>Total</b>  |    | <b>111</b>          | <b>14</b>   | <b>26</b>                                      |

## 2. Environmental footprint

ENDESA calculates its environmental footprint based on the own calculation methodology based on the most important international benchmarks, among which we can highlight the guides developed by the European Union to calculate the Environmental footprint of organisations and products. The environmental footprint allows showing the “pressure” exerted on the environment by all its businesses.

During 2016, ENDESA has adapted its environmental footprint to the organisational changes and has worked on providing greater robustness to the tool in its design.

ENDESA's commitment to excellences in environmental sustainability, and with the most advanced trends in environmental management, has led it to establish environmental footprint reduction objectives within its 2017-2019 Sustainability Plan that involve a reduction over 23% in 2019, with respect to that estimated in 2016.

### Organisation Enviromental Footprint Guide - Consolidated Version

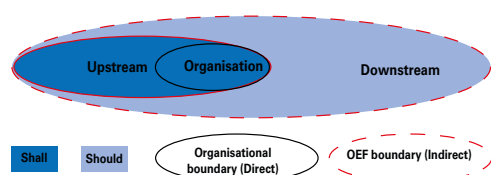
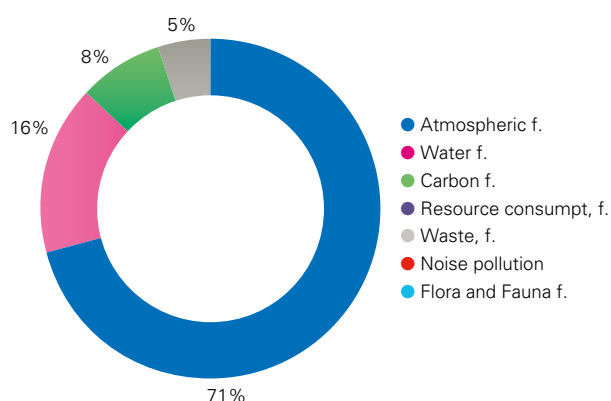


Figure 2. Organisational and OEF boundaries. Note: Any exclusion (e. g. downstream activities) shall be explicitly justified within the context of the study and the intended application.

### Direct sub-footprints 2016



## 2.1. Energy resources

G4-DMA Materials | G4-DMA Energy

ENDESA upholds its commitment to energy efficiency, spanning everything from generation process optimisation, reduction of losses in distribution grids and in the energy consumption of our buildings and facilities to the offer of a large range of efficient products and services to our customers. ENDESA is also involved in communication and raising awareness in citizens and takes part, both domestically and internationally, in the most relevant knowledge and dissemination forums of energy efficiency.

### 2.1.1. Electricity consumption

G4-DMA Energy

During 2016, there has been a reduction in primary energy consumption in ENDESA's production power plants for all sources due to lower production.

#### Electricity consumption (GJ)\*

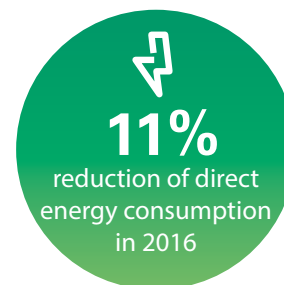
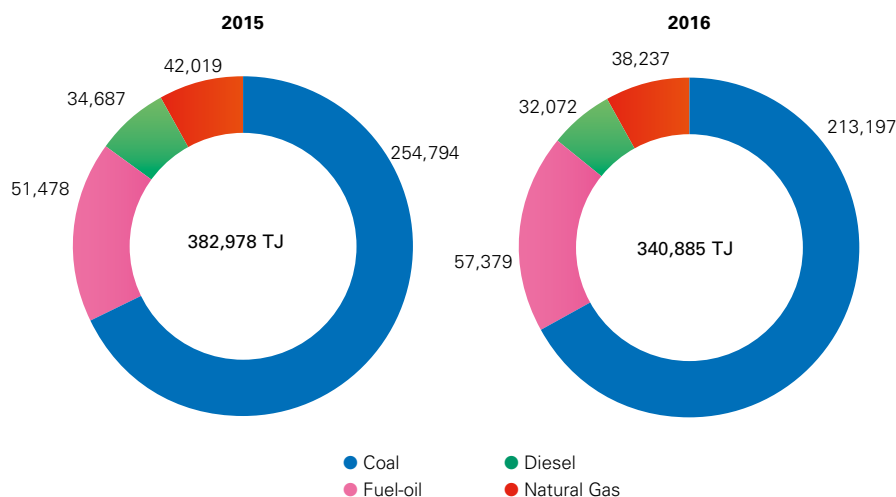
|                                | 2015                | 2016                |
|--------------------------------|---------------------|---------------------|
| Thermal power unit (TPU)       | 7,962,825.6         | 6,931,183.3         |
| Hydroelectric Power Unit (HPU) | 431,433.8           | 487,954.0           |
| Hydroelectric pumping stations | 3,992,926.9         | 3,517,513.5         |
| Nuclear Power                  | 3,780,775.8         | 3,861,835.2         |
| Mining operations              | 15,560.3            | 5,977.2             |
| Port terminals                 | 29,715.4            | 27,092.2            |
| Wind power                     | —                   | 154,103.7           |
| Photovoltaic power             | —                   | 567.1               |
| Office buildings               | 108,726.3           | 95,902.4            |
| <b>Total</b>                   | <b>16,321,964.1</b> | <b>15,082,128.6</b> |

\*GJ: Gigajoules

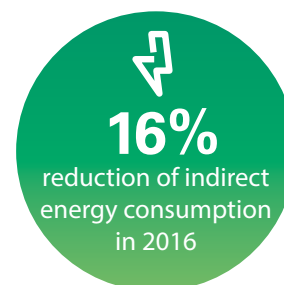
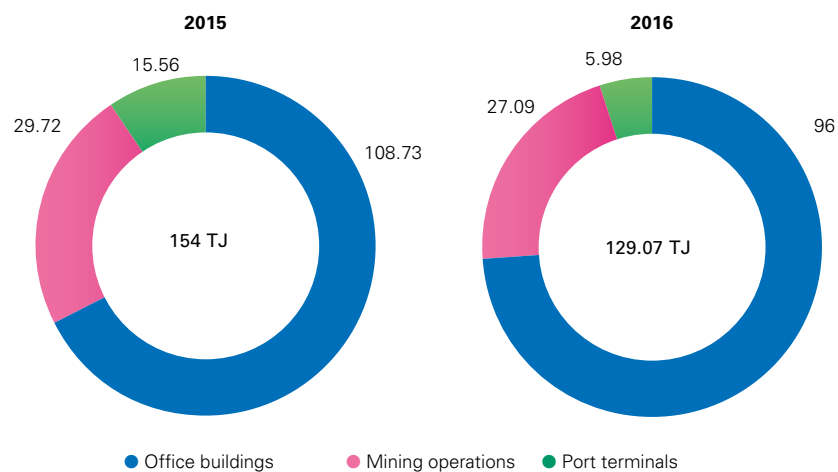
## 2.1.2. Fossil fuel consumption

G4-EN1 G4-EN3 G4-EN4 G4-EN6 G4-EN27 G4-DMA Materials

### Direct energy consumption by primary source



### Indirect energy consumption in own facilities



## 2.1.3. Other consumption

EU11 EU30

ENDESA uses other consumables necessary for electricity production. During 2016, total consumption has been 418 kilotons, 40% less than in 2015 (587 kilotons) in Spain and Portugal.

### ENDESA consumables (tons)

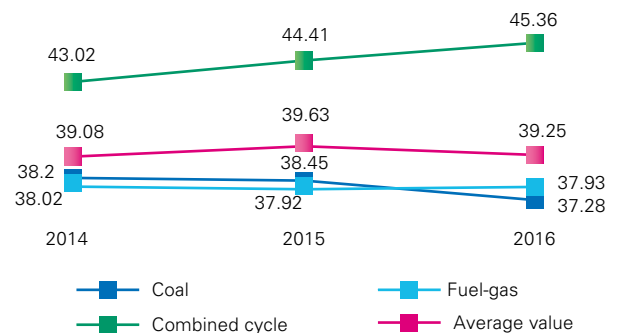
| Spain and Portugal                                 | 2015              | 2016              |
|--|-------------------|-------------------|
| Lime   | 514,34            | 570,59            |
| Iron chloride                                      | 473,67            | 442,81            |
| Ammonia  | 78,32             | 102,1             |
| Caustic soda                                       | 1,058,21          | 786,42            |
| Sulphuric and hydrochloric acid                    | 2,222,28          | 440,78            |
| Sodium hypochlorite                                | 722,64            | 621,19            |
| Chlorine dioxide                                   | 2,59              | 1,16              |
| Magnesium oxide                                    | 140,50            | 134,31            |
| Limestone used for combustion-gas desulphurisation | 575,599,97        | 408,565,11        |
| Lubricating oil                                    | 5,516,18          | 5,763,85          |
| Dielectric oil                                     | 246,16            | 242,66            |
| Other*   | 385,08            | 350,43            |
| <b>Total</b>                                       | <b>586,959,95</b> | <b>418,021,41</b> |

\* Includes chemical components used infrequently.

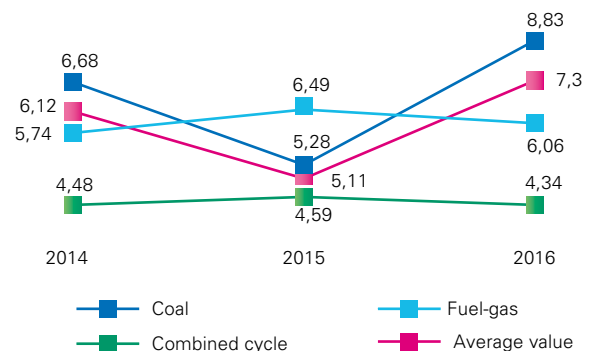
## 2.1.4. Energy efficiency and outage in electricity generation

ENDESA upholds its commitment to energy efficiency, spanning everything from generation process optimisation, reduction of losses in distribution grids and in the energy consumption of our buildings and facilities to the offer of a large range of efficient products and services to our customers. ENDESA is also involved in communication and raising

### Energy efficiency of thermal power plants (%)



### Outage of thermal power plants (%)



### Power plant outage (%)

|  | Fortuitous outage | Outage for inspections | Total outage |
|--|-------------------|------------------------|--------------|
| Coal thermal power plants                                  | 2.58              | 6.25                   | 8.83         |
| Combined-cycle thermal power plants (Mainland)             | 1.18              | 2.56                   | 3.74         |
| Combined-cycle thermal power plants (outside the Mainland) | 0.66              | 2.11                   | 2.77         |
| Thermal power plants with turbogenerator                   | 1.24              | 1.23                   | 2.47         |
| Diesel thermal power plant                                 | 4.57              | 2.84                   | 7.41         |
| Steam turbine thermal power plants                         | 1.79              | 4.44                   | 6.23         |
| Hydroelectric power plants                                 | 1.01              | 12.53                  | 13.53        |
| Average value  | 1.66              | 6.22                   | 7.88         |

awareness in citizens and takes part, both domestically and internationally, in the most relevant knowledge and dissemination forums of energy efficiency.

For ENDESA's generation business, the energy output obtained from the natural resources used is primordial. Thus, the energy efficiency of ENDESA's thermal power plants in 2016 has slightly decreased, basically due to greater production of fuel-gas power plants.

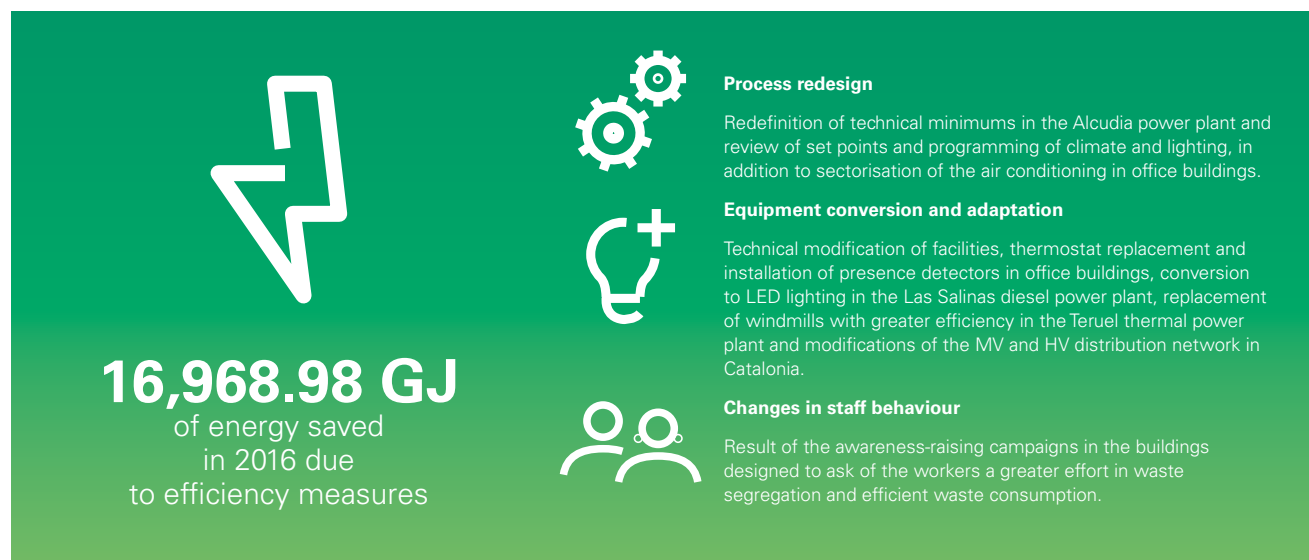
In 2016, the efficiency of the nuclear power plants has been 35.36% and outage 11.07%, in line with the values of last year (efficiency: 35.54% and outage: 11.12%).

## 2.1.5. Energy efficiency in internal processes

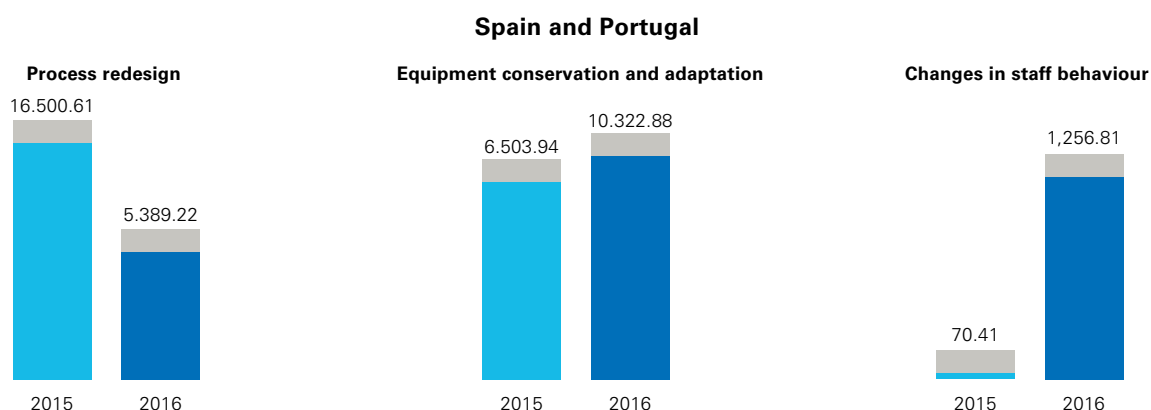
G4-EN6

In 2016, ENDESA has saved 16,968.98 GJ of energy thanks to development of energy efficiency programs, including programs centred on process redesign or equipment and adaptation, in addition to changes in behaviour of its employees during their work. This energy saving is a decrease in the Company's carbon footprint and contributes to reducing the business' operating costs.

G4-EN4



### Energy saving due to conservation and improvements in efficiency (GJ)



The estimate of external energy consumption in 2016 was 85.94 TJ. This figure is calculated as the fuel cost of the suppliers that typically work with ENDESA, and based on the carbon footprint tool verified by AENOR according to ISO 14064. The 2016 data may be modified since at the time of publication of this Sustainability Report the external verification process was being performed according to standard UNE EN ISO 14064.

G4-EN5

The energy intensity, understood as total energy consumption (TJ) per net production unit (MWh), in 2016 was 5.12 TJ/MWh, compared with 5.49 TJ/MWh of 2015. The total energy consumption figure used to make the calculation includes the direct and indirect energy consumption, in addition to fuel consumption.

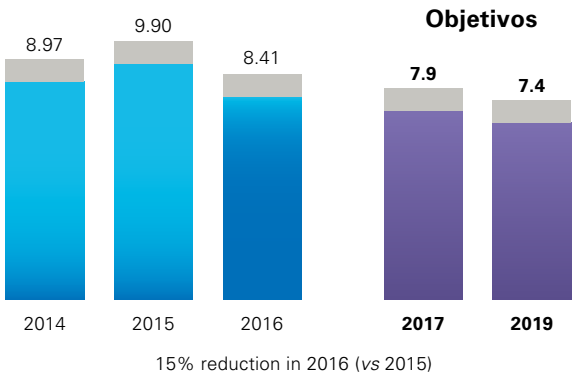
|      | Total energy consumption (TJ) | Net production (MWh) | Energy intensity (TJ/MWh) |
|------|-------------------------------|----------------------|---------------------------|
| 2015 | 399,444.15                    | 72,715.05            | 5.49                      |
| 2016 | 356,088.65                    | 69,565.92            | 5.12                      |

## 2.1.6. Energy losses in the distribution network

EU12

In 2016, ENDESA has decreased the energy losses by 15% thanks to the improvements implemented in the distribution network and to the measures to fight against electricity fraud.

Energy losses in the network (%)



## 2.2. Air quality

G4-DMA Emissions G4-EN15 G4-EN16 EUSS G4-EN17

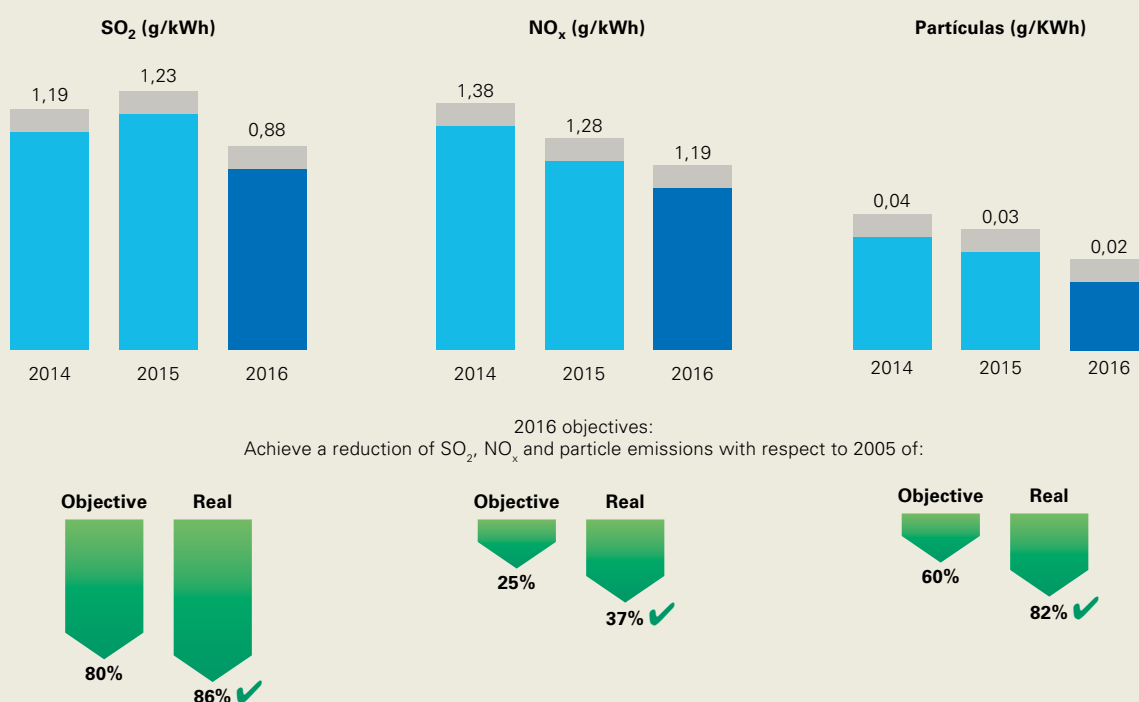
G4-EN18 G4-EN19 G4-EN21 G4-EN18

ENDESA has a stringent supervision system for all its emissions to control the characteristics and volumes emitted. The Company complies with the parameters required by applicable legislation, implements technologies to minimise emissions and designs and applies corrective measures of the impacts generated.

All mainland coal facilities have become part of the Transitional National Plan whereby maximum annual emissions ceilings are established, giving a progressive reduction of emissions between 2016 and mid-2020. This progressive reduction in emissions ceilings would mean for those ENDESA facilities part of the plan over 50% reduction for SO<sub>2</sub> and NO<sub>x</sub> and approximately 40% for particles between 2016 and 2020.

This mechanism (Transitional National Plan (PNT)) means, if possible, greater stringency and greater commitment to

### Evolution of specific SO<sub>2</sub>, NO<sub>x</sub> and particle emissions



During 2008-2015, where the National Emissions Reduction Plan was carried out (PNRE) for the Large Combustion Facilities (GIC), the Company performed important actions in its facilities to reduce the atmospheric emissions of the main conventional pollutants (SO<sub>2</sub>, NO<sub>x</sub> and particles). With the incorporation in the Spanish legal system of Industrial Emissions Directive 2010/75/EU, through Act 5/2013 and Royal Decree 815/2013, new and stricter environmental requirements are introduced for polluting emissions. In particular, the existing facilities must respect new limits and comply with various mechanisms after 2016.

decreasing current emissions from ENDESA's main thermal power plants.

Within the framework of this new mechanism, important actions and procedures have already been performed in the power plants aimed at complying with the PNT and the emission levels demanded by the industrial emissions legislation, such as:

- > In 2016, investment in units 1 and 2 of the Litoral de Almería thermal power plant have been completed for the



installation of denitrification (SCR) and desulphurisation systems of combustion gases. Through implementation of these measures, the plant can reduce its emissions to the future emission levels established by the new industrial emissions legislation and is a benchmark for best available practices.

- > In the As Pontes power plant, 2016 has seen approval of the investment to implement de denitrification (SNCR) techniques with urea injection and wet desulphurisation. These systems have been designed not only to meet the IED must also reach the BREF (Best Available Practices Reference Document), which are very significant reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions compared with current values.
- > In 2015, ENDESA obtained the Decision from the regional ministries with authority over the Environment of the Autonomous Communities of Castile and León and Aragon, declaring the projects to adapt the thermal power plants of Compostilla and Teruel, respectively to be non-substantial modifications, with a view to the new demands of the Industrial Emissions Directive. These projects will consist of the installation of the equipment necessary to reduce nitrogen oxide (NO<sub>x</sub>) emission levels below the limits indicated in said Directive.

Likewise, in new mechanisms established by the industrial emissions legislation, the island facilities affected by Directive 2010/75/EC have had recourse to the Small Isolated Network Mechanism, whereby it extends the application of the Limit Emission Values with a view to being able to make the necessary investments to be able to comply with them after 2020.

As well as the major investments aimed at reducing emission levels, ENDESA's facilities continue to make small modifications within the continuous improvement process, with a view to optimising the emissions control systems and reducing them. The most outstanding actions of 2016 are:

- > Automatic metering machines: ENDESA's installations have continued with the calibration and verification of the automatic metering systems of its installations under Standard EN-UNE 14181.

- > Teruel Thermal Power Plant (Andorra): injection of dibasic acid in the absorber to decrease SO<sub>2</sub> emissions and replacement of water heaters/steam boilers to decrease particles and NO<sub>x</sub>.
- > As Pontes thermal power plant: reduction of nitrogen oxide emissions in Unit II, 47% with respect to 2015, using primary measures: installation of dust-in-suspension reduction systems on the coal belts.
- > Compostilla Thermal power plant: reduction of NO<sub>x</sub> emissions with the commissioning of Opticom in Units 3, 4 and 5, adjustment of boiler combustion in Units 3, 4 and 5.
- > San Roque Combined Cycle Thermal Power Plant: reduction of NO<sub>x</sub> emissions in normal operation by technical adjustments in the gas turbine operation.
- > Candelaria Thermal Power Plant: decrease in NO<sub>x</sub> emissions from the steam unit 6, achieved by oil-emulsion techniques.

## 2.3. Emissions of ozone depleting substances

### G4-20

Additionally, in Spain and Portugal 1.24 tons of CF11 equivalent were emitted, distributed as follows: 0.23 tons of HCFC (0.011 tons of CF11 equivalent), 1.22 tons of R22 (0.06 tons of CF11 equivalent) and 1.45 tons of Freon (1.16 tons of CF11 equivalent).

During 2016, new commitments have been agreed for the extraction of SF<sub>6</sub> until 2020, within the framework of the 2015-2020 voluntary agreement, signed between the Ministry of Agriculture and Fishing, Food and the Environment, the manufacturers and suppliers of electrical equipment that use SF<sub>6</sub> represented by AFBEL, the electricity transport and distribution companies represented by REE and UNESA and the authorised agents for SF<sub>6</sub> gas and equip-

ment containing it, for an integrated management of the use of SF6 in the electrical industry, more respectful with the environment.

This year, the focus was placed on unifying criteria to recover SF6 from the high and medium voltage equipment containing it at the end of their useful life. In this way, it is regenerated for reuse in addition to guaranteeing the safety and reducing the environmental impact of decontamination works of these equipment by developing protocols that apply to the waste water managers. Their content and compliance involves going beyond the environmental objectives established by current legislation, in addition to giving compliance with those established in the voluntary agreement.

## 2.4. Water resources

### G4-DMA Water EUSS

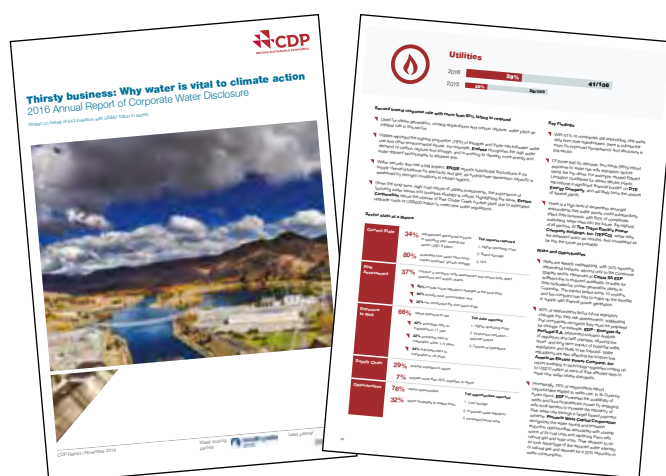
ENDESA has identified water as a critical resource that will be affected by climate change. According to the Organisation for Economic Cooperation and Development's (OECD) forecasts, by 2050, more than 40% of the world's population will live in areas of high water stress unless new policies are implemented. Additionally, the World Economic Forum identifies in its 216 Global Risks Report that water is the greatest social and economic risk in terms of impact until 2025.

Companies will play an important role in the development and implementation of solutions for these water problems. This is why in 2015, and for the sixth consecutive year, ENDESA, assuming a position of leadership among Spain's power companies, adhered to the CDP Water Disclosure initiative, which provides water and water-management data from the world's largest corporations to inform the global marketplace on investment risk and commercial opportunities and to guide investors towards sustainable use of this resource. This year, the level obtained by ENDESA has been "Management," the same level as the average sector value. The result has been slightly lower than the

previous year, pilot scoring test, due to a change in the score assignment criteria.

## For the seventh consecutive year, ENDESA has adhered to the Water Disclosure CDP. "Leadership"

As part of this initiative the CDP publishes an annual report. This year the *Thirsty business: Why water is vital to climate action—2016 Annual Report of Corporate Water Disclosure*, analyses through the response of 607 companies (48% of those invited to take part) that have taken part in the initiative the main risks and opportunities identified by the companies in relation to water availability and the company's management trends in relation to these risks. This report highlights the integrated water management performed by ENDESA.



Since water is a common resource, its management has become a delicate social, cultural and the Environmental issue, particularly in times of shortage. For this reason, solutions to improve the conditions of supply, treatment and quality of water require an approach involving collective associations and actions.

ENDESA expects to have a competitive advantage by aligning its corporate water strategy with the aims of public policies and initiatives put forward by the many stakeholders.

Through flexible and ongoing contact with the stakeholders, it should be possible to understand, anticipate and respond to new problems and expectations. An open dialogue could also be useful for preventing and reducing the risk of future water-related conflicts.

This is another example of how ENDESA's sustainability actions are aligned, striking a balance between the Company's financial, social and the Environmental responsibilities, on the basis of sustainability criteria.

All water uses made in the power facilities have been clearly devised bearing in mind their compatibility with the pre-existing users. Power plant operation is performed at all times in coordination with the catchment area bodies to guarantee compliance with the easements, maintain environmental flow capacities and favour the more rational use of the resource.

The facilities built for power generation enable greater availability of water for other purposes such as irrigation, supply or ecosystem conservation. This availability is achieved by optimising thanks to cooperation with the catchment area bodies.

In turn, building hydroelectric plants in reservoirs designed for irrigation or water supply makes it possible to obtain renewable energy without altering the availability of the resource for the main users.

## 2.4.1. Water consumption

G4-EN8 EUSS G4-EN26 G4-EN9

Integrated water management is one of ENDESA's greatest concerns. The main lines of action in this area focus on efficient consumption, water quality by controlling discharges and waste water, and reservoir management, assessing the ecological potential to provide shelter for birdlife, the possibilities to control invasive species and prevent the existence of dried up sections of regulated rivers.

G4-EN10

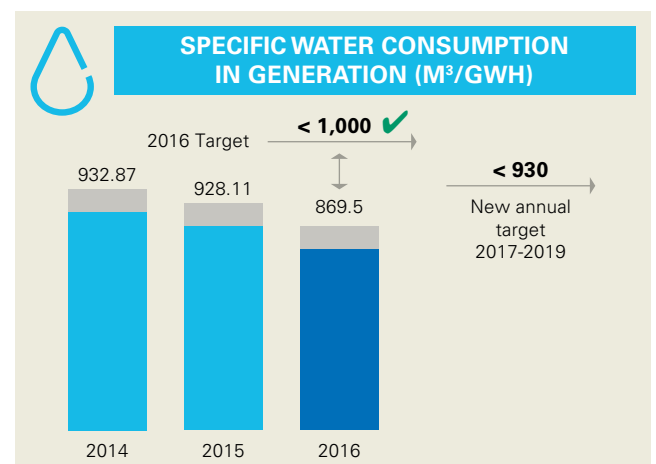
0.027% of the waste water is reused in their processes.

98.7% of ENDESA's water catchment for use in its facilities is returned to the environment so that it can be reused.

### Process water consumption (Hm<sup>3</sup>)

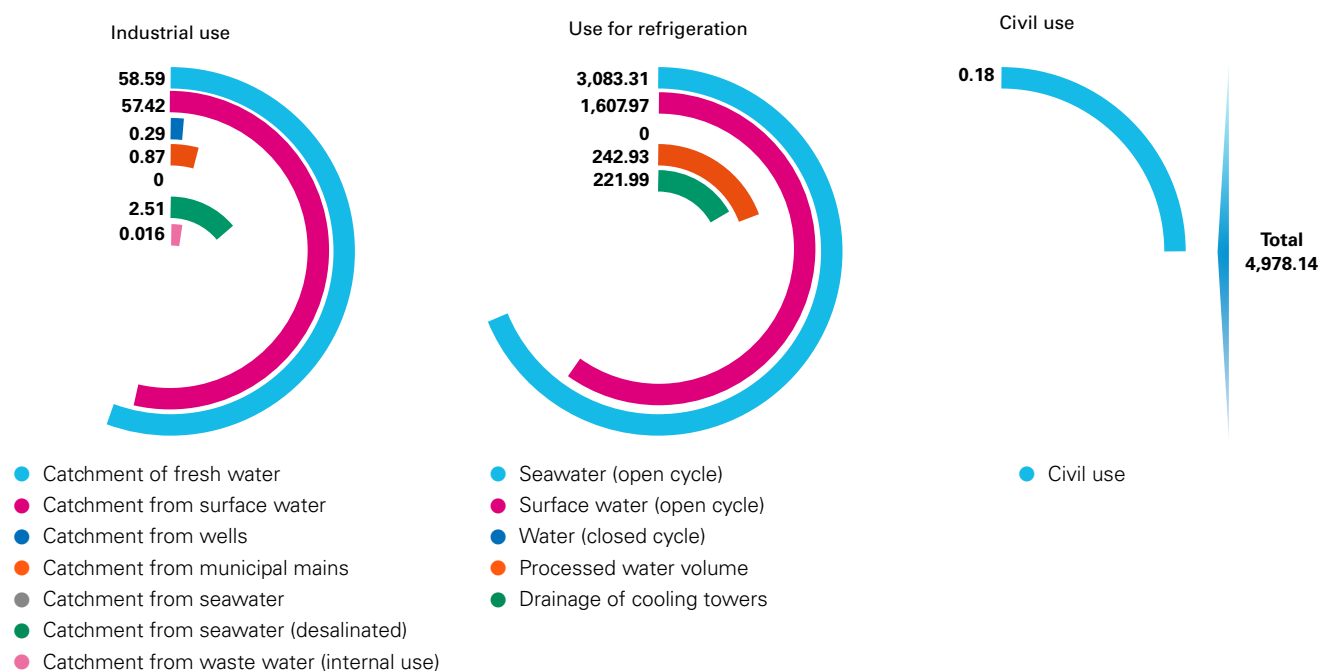
|                               | 2014         | 2015         | 2016         |
|-------------------------------|--------------|--------------|--------------|
| Thermal production unit (TPU) | 46.66        | 51.04        | 44.02        |
| Nuclear power                 | 17.15        | 16.45        | 16.69        |
| Mining                        | 0.982        | 0.935        | 0.29         |
| <b>ENDESA</b>                 | <b>64.79</b> | <b>68.42</b> | <b>60.99</b> |

Specific water consumption for electricity generation in 2016 has been 869.5 m<sup>3</sup>/GWh, below the target set for 2016 in ENDESA'S 2016-2020 Sustainability Plan.



During the last year, there has been catchment of fresh-water, seawater and wastewater for use in the Company's plants always following criteria of sustainability and efficient consumption. Water catchment for industrial uses has increased compared to 2014 due to greater activity in the facilities.

## Total water catchment by sources (Hm<sup>3</sup>)



### G4-EN26

## Water masses affected by discharges

| Water masses significantly affected                              |             |               |
|--|-------------|---------------|
| By catchment ≥ 5% total annual average vol. of the water mass    | 2014        | 4             |
|  | 2015        | 4             |
|  | 2016        | 4             |
| By catchment in water masses considered significant              | 2014        | 34            |
|  | 2015        | 34            |
|  | 2016        | 34            |
| By catchment in Ramsar wetlands area or in protected areas       | 2014        | 3             |
|  | 2015        | 3             |
|  | 2016        | 3             |
| By catchment in sources located in national protection areas     | 2014        | 61            |
|  | 2015        | 61            |
|  | 2016        | 61            |
| By catchment in sources located in international protection area | 2014        | 56            |
|  | 2015        | 56            |
|  | 2016        | 56            |
| <b>Total water masses affected</b>                               | <b>2014</b> | <b>158</b>    |
|  | <b>2015</b> | <b>158</b>    |
|  | <b>2016</b> | <b>158</b>    |
| Characteristics of the significantly affected water masses       |             |               |
| Volume (m <sup>3</sup> )   | 2014        | 341,000,000.0 |
|  | 2015        | 341,000,000.0 |
|  | 2016        | 341,000,000.0 |
| Flow (m <sup>3</sup> /sec)                                       | 2014        | 1,043.8       |
|  | 2015        | 1,043.8       |
|  | 2016        | 1,043.8       |
| Classed as protected   | 2014        | 60.0          |
|  | 2015        | 60.0          |
|  | 2016        | 60.0          |
| Value of their biodiversity 1= yes; 0 = no                       | 2014        | 59.0          |
|  | 2015        | 59.0          |
|  | 2016        | 59.0          |

### G4-EN9

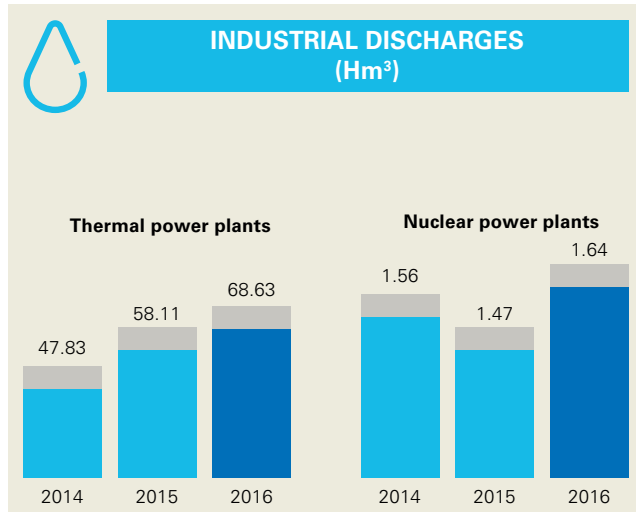
## Water masses significantly affected by water catchment

| Masas de agua afectadas significativamente                       |             |             |
|--|-------------|-------------|
| By catchment ≥ 5% total annual vol. of the water mass            | 2014        | 124         |
|  | 2015        | 124         |
|  | 2016        | 124         |
| By catchment in water masses considered significant              | 2014        | 9           |
|  | 2015        | 9           |
|  | 2016        | 9           |
| By catchment in Ramsar wetlands area or in protected areas       | 2014        | 8           |
|  | 2015        | 8           |
|  | 2016        | 8           |
| By catchment in sources located in national protection areas     | 2014        | 76          |
|  | 2015        | 76          |
|  | 2016        | 76          |
| By catchment in sources located in international protection area | 2014        | 73          |
|  | 2015        | 73          |
|  | 2016        | 73          |
| <b>Total water masses significantly affected</b>                 | <b>2014</b> | <b>290</b>  |
|  | <b>2015</b> | <b>290</b>  |
|  | <b>2016</b> | <b>290</b>  |
| Characteristics of the significantly affected water masses       |             |             |
| Volume (m <sup>3</sup> )   | 2014        | 395,324,000 |
|  | 2015        | 395,324,000 |
|  | 2016        | 395,324,000 |
| Flow (m <sup>3</sup> /sec)                                       | 2014        | 2,525.70    |
|  | 2015        | 2,525.70    |
|  | 2016        | 2,525.70    |
| Classed as protected   | 2014        | 76          |
|  | 2015        | 76          |
|  | 2016        | 76          |
| Value of their biodiversity 1= yes; 0 = no                       | 2014        | 76          |
|  | 2015        | 76          |
|  | 2016        | 76          |

## 2.4.2. Water discharge

G4-EN22 G4-DMA Effluents and waste EUSS

ENDESA has a series of procedures in place to help control and reduce discharges into water systems and improve water quality, mainly through wastewater treatment facilities. Water discharges in Spain and Portugal increased in 2016 due to the higher water consumption resulting from the increased weight of thermal generation.



Specific actions aimed at reducing water consumption and improving discharge conditions have been performed throughout 2015 in the continuous improvement of ENDESA's generation facilities:

- > Teruel Thermal Power Plant: reuse of the water surplus from the plant operation (cooling tower bleed) in the desulphurisation process. This achieves a decrease in clean water consumption.
- > Litoral de Almería Thermal Power Plant: reuse of a portion of bleed water in the desulphurisation process, thus avoiding consuming the same volume of desalinated water. In 2016, we have approximately 9,700 m³ of water has been consumed in the desulphurisation process, which is equivalent to avoiding consumption of 4% of desalinated water.
- > Las Salinas Diesel Power Plant: reduction of approximately 10 m³ in additivated water consumption by use of the water from circuit emptying involved in the thermal and industrial process.

- > Hydroelectric Production Units: elimination of the discharge points of sanitary waste waters with the purpose of replacing authorised discharges by watertight confinement systems and controlled removal. Effluent confinement policy has continued in this respect, along with separation of phases and selective management of the end waste, with the desire to tending towards a future "zero discharge" in the hydroelectric public domain. Likewise, 3 oil detectors have been installed in the drainage wells.

## 2.4.3. Water stress

In 2016, ENDESA performed a new analysis to identify which of its facilities are in water stress areas. It should be noted that the water stress of an area is an inherent feature of the area, and is in no way caused by the presence of a facility.

An area under water stress is defined as one with a water resource availability of less than 1,700 m³/person and year, defined by the FAO as the minimum fresh water supply needed to meet nourishment, health and hygiene needs.

Water stress analysis is performed using a software tool, the "Global Water Tool for Power Utilities" (GWT), developed by the World Business Council for Sustainable Development (WBCSD) and is aimed at helping companies and organisations identify and analyse water consumption in their production activity, and assess the risks related to their overall operations and supplier chain regarding water use.

The study considered a total of 47 power generation facilities of various types: 30 thermal plants and 17 hydro plants in Iberia. The conclusions of the study were of great interest:

- > A total of 20 facilities are in areas defined as under water stress, representing 42.6% of ENDESA's plants. However, it should be noted that 80% of the facilities located in these areas do not use fresh water, in the case of thermal plants because they use exclusively salt water for all uses or in the case of hydroelectric plants as they use fresh water without consuming it.

- > Facilities located in areas under water stress (< 1,700 m<sup>3</sup>/person and year) with consumption of fresh water represent only 8.5% of ENDESA's installations, producing 1.72% of the power.
- > ENDESA does not optimise fresh water use only in areas under water stress but instead does so in all its facilities, since 55.5% of production plants in areas with sufficient and abundant water do not consume fresh water either.
- > **Low- and medium-intensity radioactive waste** from ENDESA's nuclear plants, managed by Enresa and deposited in specially-designed facilities located at El Cabril (Cordoba).
- > **Waste associated to renewable production**, mainly absorbent cloths and lubricating oils, which are used by the authorised managers for reuse.
- > **Waste generated by distribution activities** such as electrical and electronic equipment (transformers, switches, condensers, meters, etc.) mineral oils, treated wood posts and other non-hazardous waste such as scrap metal, plant waste from felling and pruning and cardboard, etc. All are managed by authorised agents in strict compliance with the applicable environmental regulations.

It should be highlighted that all ENDESA's production plants that do consume water do so within the normal values expected for plants with the corresponding technology employed.

It should also be stressed that all plants have a certified ISO 14001 environmental management system. Many of their environmental management programs set water consumption reduction or discharge improvement goals, making it possible to reduce the impact of plants on the fresh water availability in the corresponding catchments.

Some of the waste-reducing measures applied are reuse of oil, removing transformers contaminated with PCB (polychlorinated biphenyls) (gradual replacement by PCB-free transformers), gradually removing components containing asbestos in buildings and auxiliary constructions.

Furthermore, ENDESA always prioritises recovery and recycling treatments of the waste generated, especially inert waste, in addition to treatment for reuse of the hazardous waste that allows this (e.g. used oils or cleaning solvents).

In 2016, ENDESA has renewed the collaboration agreement with a Collective System of Expanded Product Responsibility (SCRAP) to manage via this system the removal and recycling of 100% of the waste of fluorescent tubes and lights produced in their thermal generation facilities.

Of the total waste produced by ENDESA, a significant portion of the waste recovered by ENDESA is at its external facilities, 72% of total non-hazardous waste and 40% of hazardous waste being recovered in Spain and Portugal

## 2.5. Waste

G4-EN2 | G4-EN22 | G4-EN23 | G4-EN25 | G4-DMA Materials EUSS  
G4-DMA Discharges and waste EUSS

ENDESA has waste management and reduction systems in place, which are continually reviewed in order to identify ways to make improvements and promote them.

The main waste materials generated by ENDESA's activities are:

- > **Coal combustion products** — Gypsum, ash and slag in thermal coal-fired units. Part of this waste is sold as a by-product.
- > **Waste from reservoirs** associated with hydroelectric plants, comprising sediment deposited as a result of the reduced speed and volume of the river flow. This waste must be removed on a regular basis.

In 2016, waste production has been maintained, and recovery has remained at the same percentage for hazardous waste and reduced for non-hazardous waste, mainly by type of waste generated during this year. Specifically, recovery of non-hazardous waste has decreased by 4% (not including coal-fired waste), and for hazardous waste has increased by 20%.

During 2016, various actions have started and been executed in the thermal power plants aimed at continuous improvement and increase in efficiency of combustion facilities. These specific actions involve a necessary increase in generation of certain waste. These works include projects to improve yield and reduce contamination emissions from the generation units, changes of fuels designed to optimise operating and environmental performance and execution of various maintenance actions in the generation units.

#### Waste recovery



Recovered waste is considered to be waste delivered to an authorised waste manager to undergo recovery by this company. The previous table does not include waste from coal fired production (ash, slag and gypsum). Data for this type of waste are shown in a separate table.

#### Evolution of ENDESA's waste (tons)

|                                      | Hazardous waste (HW) |                 | Non-hazardous waste (nHW) |                  |
|--------------------------------------|----------------------|-----------------|---------------------------|------------------|
|                                      | 2016                 | 2016            | 2016                      | 2016             |
|                                      | Produced             | Recovered       | Produced                  | Recovered        |
| Thermal Power Units (TPU)            | 7,092.2              | 3,255.5         | 21,937.8                  | 11,942.61        |
| Hydroelectric Production Units (HPU) | 304.9                | 302.0           | 1,118.8                   | 1,060.5          |
| Mining                               | 14.3                 | 7.6             | 1,628.1                   | 492.4            |
| Port terminals                       | 10.8                 | 5.3             | 905.3                     | 885.9            |
| Nuclear                              | 326.4                | 70.4            | 2,149.4                   | 1,494.6          |
| Distribution                         | 1,910.27             | 206.96          | 14,637.15                 | 14,637.15        |
| Windpower                            | 42.2                 | 9.8             | 1.1                       | 0                |
| <b>Total</b>                         | <b>9,701.07</b>      | <b>3,857.56</b> | <b>42,377.65</b>          | <b>30,513.16</b> |



## Percentage of materials used which are recovered

|   | Unit     |                  |                                     |
|---|----------|------------------|-------------------------------------|
| <b>Brine reused instead of sulphuric acid</b> | <b>t</b> | <b>0.00</b>      |                                     |
| Other materials                               | t        | 9,830.71         | Dry sludge for energy use           |
| <b>Lime reused in desulphurisation</b>        | <b>t</b> | <b>0.00</b>      |                                     |
| Other materials                               | t        | 2.35             | Empty containers and packaging      |
| <b>Sludge reused instead of iron chloride</b> | <b>t</b> | <b>0.00</b>      |                                     |
| Other materials                               | t        | 1.17             | Wood                                |
| Other materials                               | t        |                  |                                     |
| <b>Lubricating oil, filtered and reused</b>   | <b>t</b> | <b>102.64</b>    |                                     |
| Other materials                               | t        | 402.07           | Dielectric oil, filtered and reused |
| Other materials                               | t        | 0.00             |                                     |
| <b>Total Recycled</b>                         | <b>t</b> | <b>10,338.94</b> |                                     |

## G4-EN2

## Types of non-hazardous and hazardous waste and its fraction recovered

Non-hazardous waste

|   | Unit     | 2014             | 2015             | 2016             |
|---|----------|------------------|------------------|------------------|
| <b>Sludge</b>                             | <b>t</b> | <b>10,417.20</b> | <b>8,589.22</b>  | <b>8,404.96</b>  |
| Fraction recovered in external facilities | t        | 4,681.86         | 3,724.18         | 690.77           |
| <b>Machinery and equipment</b>            | <b>t</b> | <b>1,340.53</b>  | <b>157.22</b>    | <b>547.35</b>    |
| Fraction recovered in external facilities | t        | 1,280.18         | 154.90           | 546.22           |
| <b>Packaging materials</b>                | <b>t</b> | <b>450.96</b>    | <b>704.26</b>    | <b>418.75</b>    |
| Fraction recovered in external facilities | t        | 445.94           | 697.22           | 383.7            |
| <b>Solid wastes</b>                       | <b>t</b> | <b>—</b>         | <b>—</b>         | <b>—</b>         |
| Fraction recovered in external facilities | t        | —                | —                | —                |
| <b>Liquid waste</b>                       | <b>t</b> | <b>—</b>         | <b>—</b>         | <b>—</b>         |
| Fraction recovered in external facilities | t        | —                | —                | —                |
| <b>Other waste (1)</b>                    | <b>t</b> | <b>59,849.82</b> | <b>34,676.19</b> | <b>33,006.55</b> |
| Fraction recovered in external facilities | t        | 58,074.72        | 32,697.64        | 28,892.50        |
| <b>Total produced</b>                     | <b>t</b> | <b>72,058.50</b> | <b>44,126.88</b> | <b>42,377.61</b> |
| <b>Total recovered</b>                    | <b>t</b> | <b>64,482.69</b> | <b>37,273.94</b> | <b>30,513.19</b> |

(1) An error in the waste value in 2015 has been detected, this table gives the corrected value.

## Hazardous waste

|   | Unit     | 2014             | 2015            | 2016            |
|---|----------|------------------|-----------------|-----------------|
| <b>Used oils</b>                          | <b>t</b> | <b>1,316.04</b>  | <b>1,574.90</b> | <b>876.46</b>   |
| Fraction recovered in external facilities | t        | 1,081.79         | 1,225.23        | 591.36          |
| <b>Machinery and equipment</b>            | <b>t</b> | <b>1,911.02</b>  | <b>705.59</b>   | <b>1,439.87</b> |
| Fraction recovered in external facilities | t        | 1,804.63         | 45.28           | 307.40          |
| <b>Used batteries</b>                     | <b>t</b> | <b>98.41</b>     | <b>87.34</b>    | <b>139.37</b>   |
| Fraction recovered in external facilities | t        | 69.28            | 29.78           | 77.59           |
| <b>Materials with asbestos</b>            | <b>t</b> | <b>932.29</b>    | <b>403.43</b>   | <b>632.92</b>   |
| Fraction recovered in external facilities | t        | 18.50            | 10.64           | 194.02          |
| Sent to vitrification treatment           | t        | 0                | 0               | 0               |
| <b>Solid waste</b>                        | <b>t</b> | <b>—</b>         | <b>—</b>        | <b>—</b>        |
| Fraction recovered in external facilities | t        | —                | —               | —               |
| <b>Liquid waste</b>                       | <b>t</b> | <b>—</b>         | <b>—</b>        | <b>—</b>        |
| Fraction recovered in external facilities | t        | —                | —               | —               |
| <b>Other Waste</b>                        | <b>t</b> | <b>10,494.33</b> | <b>5,302.35</b> | <b>6,612.54</b> |
| Fraction recovered in external facilities | t        | 2,797.48         | 1,910.52        | 2,687.36        |
| <b>Total produced</b>                     | <b>t</b> | <b>14,752.09</b> | <b>8,073.59</b> | <b>9,701.16</b> |
| <b>Total recovered</b>                    | <b>t</b> | <b>5,771.68</b>  | <b>3,221.45</b> | <b>3,857.73</b> |

## Radioactive waste (m³) produced

|   | 2015   | 2016  |
|---|--------|-------|
| Liquid  | 4.19   | 0.6   |
| Solid   | 226.62 | 221.8 |
| Compactable   | 142.61 | 139.5 |
| Other treatments (fragmentation, cementation, etc.) | 69.45  | 57.6  |
| Remaining   | 14.56  | 24.6  |

## 2.5.1. Coal-fired products

ENDESA recovers the waste ash and slag produced in the coal-fired plants, mainly located in the Iberian Peninsula, as raw material for other industrial uses. In this way, the Company generates additional income arising from the sale of these by-products.

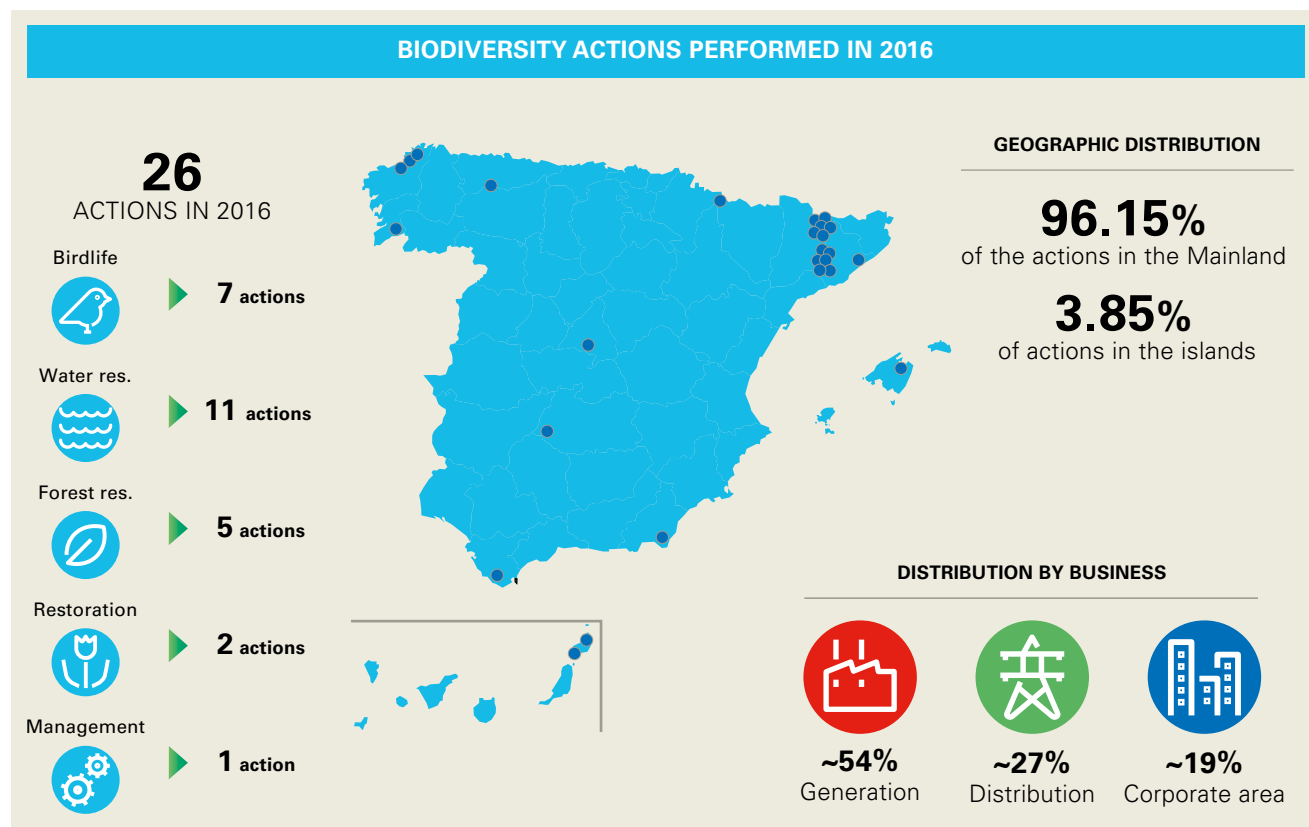
The ash produced in our facilities has been certified under Standard UNE-EN 450 1/2 for use as additives in concrete production. In this way, their quality is certified and their recovery is maximised.

The Litoral de Almería thermal power plant has obtained the EuroGypsum quality certificate for the desulphurisation gypsum, in order to certify its quality and thus maximise its recovery in the market.

## Production and management of ash, slag and gypsum in ENDESA's coal-fired thermal plants (Spain and Portugal)

|                        | 2014      | 2015      | 2016    |
|------------------------|-----------|-----------|---------|
| <b>Ash (t/year)</b>    |           |           |         |
| Produced               | 1,497,624 | 1,302,572 | 936,414 |
| Recovered              | 577,405   | 434,744   | 236,579 |
| Restoration            | 0         | 0         | 0       |
| Landfill               | 920,220   | 867,828   | 699,835 |
| <b>Slag (t/year)</b>   |           |           |         |
| Produced               | 259,965   | 228,014   | 161,170 |
| Recovered              | 20,949    | 6,548     | 22,869  |
| Restoration            | 0         | 0         | 0       |
| Landfill               | 239,016   | 221,466   | 138,301 |
| <b>Gypsum (t/year)</b> |           |           |         |
| Produced               | 1,042,930 | 1,160,300 | 791,359 |
| Recovered              | 63,334    | 49,152    | 39,659  |
| Landfill               | 979,596   | 1,111,149 | 751,700 |

## 3. Conservation of biodiversity



### EU13 G4-DMA Biodiversity EUSS

Biodiversity conservation is not a new concept for ENDESA. Already in its first Environmental Policy approved and published in 1998, it established as one of its reference principles: "Conservation of the natural environment of its facilities by adopting measures to protect the species of flora and fauna and their habitats." Likewise, biodiversity conservation was already established as one of the seven Commitments for Sustainable Development within the framework of the first Strategic Sustainability Plan.

ENDESA's corporate website provides the public with all ENDESA's activity about study, management and conservation of biodiversity, in addition to other information and useful tools: [www.endesabiodiversity.com](http://www.endesabiodiversity.com).

## 3.1. Biodiversity Conservation Plan

### G4-EN11 G4-EN12 EUSS G4-EN13 G4-EN15

ENDESA's Biodiversity Conservation Plan is the culmination of the Company's extensive experience in this area. In 2012, it designed a Biodiversity Conservation Plan and, in 2013, began to put it into practice, with the result of notable efficiency and a high degree of achievement of the first milestones.

ENDESA's biodiversity conservation plan provides a structure that enables selecting and appraising, firstly, and under criteria of scientific, social and applied all the initiatives received, both internal and external, regarding biodiversity.

Each initiative is typified and classified within the Plan. Finally, it is entered in a database to monitor it until project conclusion:

| Areas of action                 | Scope of application (biodiversity components) |                        |            |                     |
|---------------------------------|--|------------------------|------------|---------------------|
|                                 | Spaces   |                        | Species    |                     |
|                                 | Management of uses and infrastructures (A)     | Habitat management (B) | Native (C) | Invasive exotic (D) |
| 1. Own facilities               | A1   | B1                     | C1         | D1                  |
| 2. Areas of influence           | A2   | B2                     | C2         | D2                  |
| 3. Research projects            | A3   | B3                     | C3         | D3                  |
| 4. Socio-environmental projects | A4   | B4                     | C4         | D4                  |
| 5. Emblematic projects          | A5   | B5                     | C5         | D5                  |

Regarding the goals of the Plan for Biodiversity Conservation, in 2016 the main lines of action set forth in 2012 have been maintained:

- > Conditioning the physical environment in ENDESA's lands and facilities in order to increase their biodiversity capability in a biogeographical manner consistent with the environment.
- > Managing natural factors surrounding facilities to improve the conditions of the habitats of certain specific species, or the biotopes to which they belong.
- > Recognition of ENDESA's natural heritage, the ecosystems which it houses and their value and state of conservation.
- > Preservation in ENDESA's facilities and their surroundings of native species and controlling invasive species with a high impact from an ecological standpoint and for ENDESA's business.

ENDESA monitors development of the degree of compliance with the objectives of each one of the active projects of the Biodiversity Conservation Plan. For this, it has been essential to demand specific, achievable, measurable and verifiable targets for each project, and to plan project progress monitoring and an assessment of the final results in terms of degree of compliance with the originally set targets.

In order to characterise and describe the annual activity of ENDESA's Biodiversity Conservation Plan, there are a series of indicators for which annual values are obtained and which will be described below:

- > Total number of projects in the Biodiversity Conservation Plan.
- > Number of projects started in the year in progress.
- > Number of projects started in previous years.
- > Number and % of projects by area of action.
- > Number and % of projects by area of application.
- > Number and % of projects by large subject areas (birdlife, water resources, forest resources, space restoration and biodiversity management tools).
- > Number and % of projects by associated line of business.
- > Number and % of projects by territory.
- > Number of scientific publications resulting from the Biodiversity Conservation Plan, with express recognition of ENDESA.
- > Number of communications to congresses arising from Biodiversity Conservation Plan projects, with express recognition of ENDESA.

The Biodiversity Conservation plan has ended 2016 with a total of 26 activities under way, with the following balance: 19 started in previous years (with 5 of them ending in 2016 and 14 which continue active) and 7 further actions started in the last year.

The following table shows the distribution of ENDESA's Biodiversity Conservation Plan actions under way in 2016, classified in accordance with the governing matrix of the Plan and the 20 types of actions it houses, which can be deducted from the cross of rows by columns.

| Areas of action                 | A.<br>Management of use<br>and infrastructures | B.<br>Habitat<br>management | C.<br>Native | D.<br>Invasive exotic<br>species |    |
|---------------------------------|--|-----------------------------|--------------|----------------------------------|----|
| 1. Own facilities               | 4  | 1                           | 2            | 0                                | 7  |
| 2. Areas of influence           | 2  | 2                           | 3            | 1                                | 8  |
| 3. Research projects            | 2  | 1                           | 1            | 2                                | 6  |
| 4. Socio-environmental projects | 1  | 2                           | 1            | 0                                | 4  |
| 5. Emblematic projects          | 0  | 0                           | 1            | 0                                | 1  |
|                                 | 9  | 6                           | 8            | 3                                | 26 |

| Distribution of actions by subject area | No<br>actions | %             |
|---|---------------|---------------|
| Birdlife                                | 7             | 26.92         |
| Water resources                         | 11            | 42.31         |
| Forest resources                        | 5             | 19.23         |
| Restoration of natural spaces           | 2             | 7.69          |
| Biodiversity management tools           | 1             | 3.85          |
| <b>Total</b>                            | <b>26</b>     | <b>100.00</b> |

The plan's actions have been performed throughout almost all the Iberian Peninsula (96,15%) and the islands (10%) and encompassed a substantial share of the business lines of the Company. Specifically, the generation area received 53.85% of the Plan actions; while Distribution received 26.92% and the corporate area 19.23%.

## 3.2. Key actions

### G4-EN12 EUSS

### 3.2.1. Studies and research

The main activities in the scope of research of the Biodiversity Conservation Program carried out during 2016 are described in the following paragraphs.

The project on enhancement of ecosystem services in the Noguera Pallaresa river basin has given its definitive results in the last year.

The study and testing of measurement and valuation methodologies of the flow of ecosystem services is a

novel area under constant development. The relationship between ENDESA's activity and the flow of services is of particular interest for the company, which with this study is the company's first venture into this terrain.

In agreement with the conclusions of the Millennium Ecosystem Assessment (<http://www.unep.org/maweb/es/index.aspx>), the ecosystem services are those benefits that people get from the good working of ecosystems. These services can be classified in 4 categories:

- > Procurement services, such as production of food, water, energy, wood and fibres among others.
- > Regulation services: of climate, floods, diseases or water quality.
- > Cultural services, including recreational, aesthetic and spiritual benefits.
- > Support services, such as soil formation, pollination or operation of nutrient cycles. These services are necessary to guarantee others belonging to any of the previous categories.

Only the good operation of the ecosystems that produce these services guarantees that their flow is maintained and is sustainable. Hence, an adequate appraisal of the ecosystem services that a territory may provide includes the appraisal of the state of the ecosystems forming it.

The study of the Noguera Pallaresa basin is particularly interesting as it is a basin with a high presence of hydro-electric production infrastructures. To quantify the flows of ecosystem services, after assessing the state of the ecosystems present in the basin, a methodological sys-

tem was followed similar to that developed by the MEAS working group (<http://biodiversity.europa.eu/maes>) in its 2015 report and the models developed by InVEST were applied (<http://www.naturalcapitalproject.org/invest/>).

In order to analyse the influence of the presence of ENDESA's activity in ecosystem services, a scenario was modelled without hydroelectric plants and it was compared with the real situation. The ecosystem services negatively affected in the comparison (e.g. lumber stock or pollination) were mainly due to the decrease in forest habitats in general and riverside wood in particular. However, in no case the decrease in flow of these services was numerically significant, since the surface area occupied by the dams is a small percent of the total surface area of the basin.

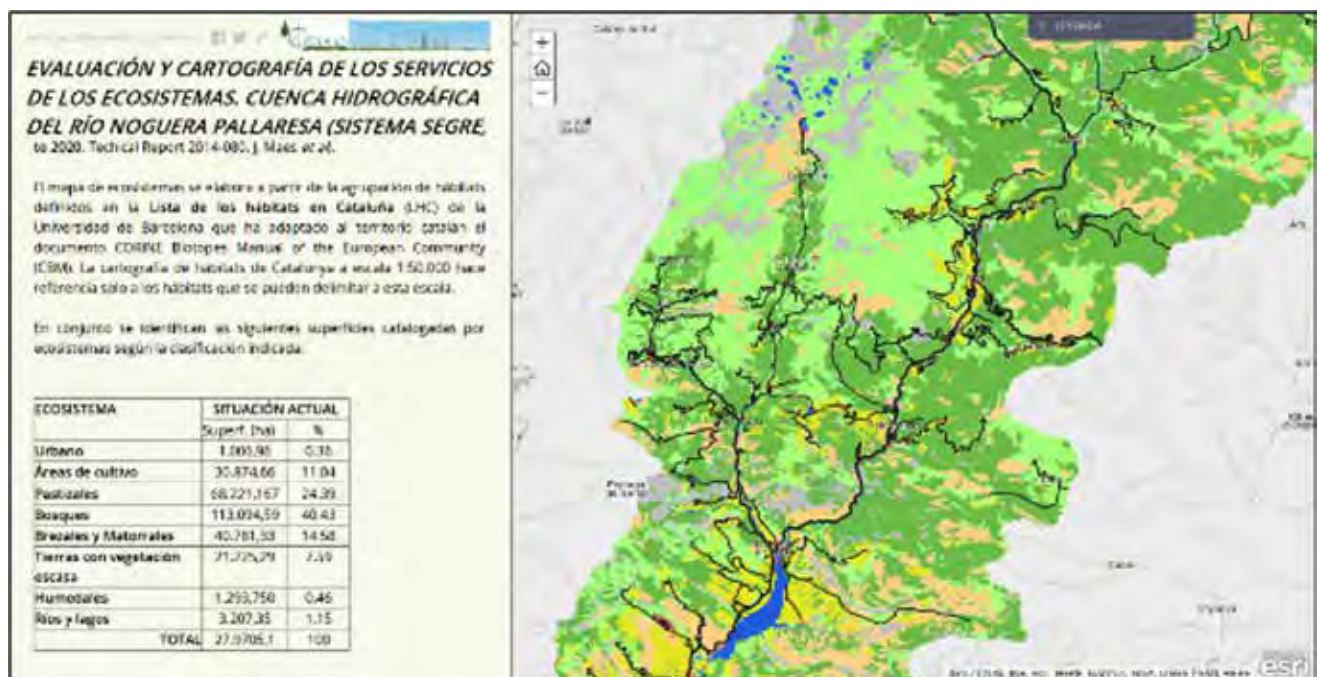
It was also observed that the presence of dams favoured the basin's soil retention capacity (as it decreased the surface area which could erode), the presence of protected natural spaces (since there are several RAMSAR wetlands in different dam tail areas) and the leisure offer associated to this type of water mass. These benefits are added to the main and already known procurement services, the flow of which occurs thanks to ENDESA's

activity in the basin: obtaining electricity from renewable sources.

This project's results led to a scientific communication in the form of a speech to the Iberian Limnology Congress held in Tortosa in June 2016, and may be consulted in a cartographic visor online: [http:// arcg.is/1SYLMLh](http://arcg.is/1SYLMLh)

Additionally, within the area of water resource management and with the Noguera Pallaresa basin as selected area of study, ENDESA continued with on the sustainability of water resources under global change (HIDSOS) in 2016.

In 2013, ENDESA started to develop a research project on the effects of global change in water as a resource and on the ecological condition of the water masses. The results obtained to date indicate a decrease in water supply in the area of study, mainly due to climate factors, but also influenced by expansion of forest cover and the associated increase in evapotranspiration as a whole in the basin. It has also been verified that climate change and the reforestation process due to abandoning crops the basin under study has undergone have influenced the erosion and sediment transport process.





The following phase of the study, which has started in 2016 and shall end in 2017, will allow progress to be made in the calculation of the effects of global change (understood as a combination of climate change and environment transformation processes, mainly change in soil use) over the amount of available water resources, the nutrient dynamic and transport of sediments within the basin and hydroelectric production. Furthermore, the impact of dams and hydroelectric power plants on water temperature shall also be studied and the possibilities of expanding the HIDSOS model to other basins with ENDESA hydroelectric facilities.

During 2016, no projects have concluded or continued from previous years, but new channels of research have commenced in biodiversity conservation. One of these new initiatives has been the development project of new anti-collision devices for power lines. The objective of this project is the design of a prototype that gets ahead of the currently available solutions, mainly in terms of effectiveness, durability and cost. Thus, ENDESA gets involved in conservation of birdlife not only by adapting lines with already existing devices, but getting involved in preliminary phases, promoting R&D&I activity as regards anti-collision solutions.



This project, which will continue during 2017, has given its first results at the end of 2016. After a preliminary analysis of the problem and current solutions, a numerical study of design possibilities has been carried out which has made it possible to select, based on its greater features, one of 3 designs considered at the start. The following phases will see completion of the selected device design, the first prototypes will be built and the physical tests will be performed in order to corroborate their greater efficiency.

### 3.2.2. Birdlife protection actions

One of the most important milestones in biodiversity in 2016 and, in particular, birdlife conservation has been the conclusion of the study of the use of power line pylons by the Canary Island Egyptian Vulture.

The Canary Island Egyptian Vulture (*Neophron percnopterus* sub-species *majorensis*) is a sub-species of the Egyptian Vulture, differentiated from it by its adaptation to the island environment. It is currently in danger of extinction according to the IUCN. This category represents the greatest degree of threat that a species may suffer before being considered extinct.

It seems evident that pylons are frequently used as perches, look-out posts or by breeding adult Canary Island Vultures. To effectively make the suitable adaptations, it is vital to know the use made by the Canary Island Egyptian Vultures of these pylons. Furthermore, the study has made it possible to know the ecological role of the pylons for this species and their environment. The main objective of this project (started in 2014) was to study the possible ecological and ethological factors that govern the movement of the breeding Canary Island Egyptian vultures and further study how the individuals use the available resources, in particular power lines. GPS tracking techniques in breeding Canary Island Egyptian vultures have been used to determine what pylons are used and why.



5 Canary Island Egyptian vultures were marked in 2015 thanks to ENDESA's project. The localisation data obtained were added to the other 44 individuals fitted with



GPS thanks to other projects that the Doñana Biological Station (body belonging to CSIC and technical manager of the project) performed in the same study area: the islands of Fuerteventura and Lanzarote. During 2016, data has continued to be received and has been analysed and interpreted, in order to verify to what extent the use of pylons depends on environmental variables. The specimens tracked by GPS had clear preference for pylons with greater height (mainly high voltage lines). Another important factor was proximity to places with the known presence of food.

The results have made it possible to establish an inventory of the pylons that have greater risk of electrocution based on their design and the intensity of their use according to the data collected by GPS tracking. Additionally, this project has provided society with greater scientific knowledge of the behaviour of a species in critical danger of extinction as relevant for its territory as the Canary Island Egyptian Vulture.

The study on the Canary Island Egyptian vulture has not been ENDESA's only initiative to track protected birdlife species. In 2016, a test of new harnesses for GPS marking of specimens of Red Kite was performed in the La Alfranca (Zaragoza) fauna recovery centre. This is a species considered at danger of extinction in Spain. Despite its conservation status, there is very little data on the true distribution area of this species in the Iberian Peninsula, the real state of its populations and the causes of its regression. The behaviour of young specimens (often the most vulnerable due to less experience and prospecting flights) is particularly known, due to the difficulty of their marking.



This situation gives rise to the importance of developing new expandable harnesses, which mean young birds can be fitted with GPS without the device later bothering them or being a danger for the bird when it grows. The test, consisting of marking 4 adult and 4 young birds from the Alfranca centre, has made it possible to monitor the response of individuals in controlled captivity, guaranteeing in this way that the new harnesses are safe for their use in wild birds.

During 2016, ENDESA has continued with actions related to birdlife protection in the main geographic areas where it has power lines, prioritising actions with protected species, including:

- > In Andalusia: the result, among other factors, from correction of blackspots for birdlife within the framework of the Company's collaboration with the Department of the Environment of the Regional Government of Andalusia in the project to reintroduce the osprey in Cadiz and Huelva, 8 chicks have been born this year, so that the number of individuals comes to 45.

Likewise, during 2016, anti-collision measures have been performed in different HV lines as collaboration in the development of the LIFE project "Conservation and management of the areas of special protection for steppe birds of Andalusia". In this same geographic area, collaboration is maintained with the environmental authorities in the urgent correction of installations identified at risk for emblematic species, such as the Iberian Imperial Eagle.

- > In Aragon: actions have been implemented to protect birdlife contained in the Decision of 19 May 2015 of the Secretary of State for the Environment, whereby declaration of environmental impact of the Mularroya Dam was formulated, the environment of which affects several protected species Red Natura 2000, especially the ZEPA Gorges of the River Jalón, within which a critical area of Bonelli's eagle is extended, which has special protection, by means of Decree 326/2011, of 27 September. During 2016, layouts, assessments and other studies of the lines indicated in the Decision have been performed, the compensatory measures of which also include actions in other protection areas for Bonelli's eagle outside the

setting of the Mularroya project construction. In the case of ENDESA, 32 lines are affected, with a total of 194 km in length and 1,215 pylons. The reforms are included in a multi-year plan.

Within the framework of the collaboration agreement between the Government of Aragon and ENDESA “for the development of projects in powerlines, to reduce or eliminate the risks of collision and electrocution of threatened birdlife” (signed in 2010) no actions have been performed during 2016 due to lack of budget allocated by the Aragon Government. Contacts and meetings have been held to unify action criteria with the Aragonese Institute of Environmental Management.

We can also highlight the tests performed on several pylons of the lines with the installation of anti-perch elements of new design, with proven efficacy.

- > In Castile and Leon: in relation to the Collaboration Framework Agreement between the Department of Promotion and Environment of the regional government and the company on the “the environmental integration, development and maintenance of the electricity grid” (signed in 2013), a meeting of the Monitoring Committee was held in 2016. Here, aspects were dealt with related to the mutual collaboration in the dissemination of actions and possible reconsideration of the environmental surveillance to include a deadline.
- > In the Balearic Islands: within the framework of the Collaboration Agreement with the Department of Agriculture, Environment and Territory of the Balearic Island Government “For the Coordination of Environmental Actions arising from electricity distribution and protection of birdlife” (in force since 2004), to reform pylons and isolate or mark powerlines that may have a risk of collision and/or electrocution for the birds. To date, a total of 1,209 actions have been performed, 36 during the last year.

Furthermore, ENDESA is collaborating in the European Project LIFE BONELLI in coordination with the Species Protection Service of the Balearic Islands Government for recovery of Bonelli's eagle (*Aquila fasciata*) in the islands, from where it disappeared in the 1970s. The bal-

ance of 2016 in Majorca is highly satisfactory and both the population and number of territories continue increasing with every year. The project started in 2012 and already in 2015 Majorca had 19 birds of the species and 3 territories. 2016 ended with 24 birds and 5 pairs settled in their respective territories (data from LIFE BONELLI). ENDESA has collaborated by continuing with the modification and adaptation of the pylons considered hazardous in lines within the area of distribution of this bird of prey in the areas of the Sierra de Tramuntana mountains, west and southeast of the island of Majorca, 39 actions since collaboration started.

- > In Catalonia: we can highlight the renovation of the high voltage line that passed through the Parque de la Serralada Litoral with investment of 1 million euros. The project has consisted of replacing the wiring and various pylons to improve quality and supply in the districts of Maresme and Vallès Oriental, also improving the birdlife incident prevention systems. These works have been coordinated with the Park management so as not to interfere in the nesting season of the species that inhabits this natural space. It has also considered the area's chromatic characteristics to reduce to a maximum the visual impact of the infrastructure in the Parque de la Serralada Litoral.

Among the actions undertaken to mitigate the impact of distribution lines in species such as Bonelli's eagle (*Hieraaetus fasciatus*), short-toed snake eagle (*Circaetus gallicus*), or griffon vulture (*Gyps fulvus*), we can highlight that performed on a 25 kV line in the municipality of Seròs in the region of Segrià. This has consisted of installing cable protections and staples, and installing casings and silicon covers on the pylons.

- > In the Canary Islands: during 2016, actions have been continued underway since 2010 with the aim of minimising the risk of collision of birds in medium-voltage power lines of Lanzarote and Fuerteventura. To minimise this risk, improvements in the quality of the FireFly beacons used until now have been made. The Spanish Ornithology Society (SEOBirdlife) is responsible for monitoring and appraising these beacons.

ENDESA's biodiversity conservation initiatives have been reported in the media. Here are several new articles from 2016.

**ENDESA has installed 8 new nesting boxes in the electrical towers located within the Parc Natural dels Aiguamolls de l'Empordà** with the aim of encouraging nesting of the European roller.

The collaboration project with the Parc Natural dates from 1984 and has made it possible to increase the specimens of this threatened species which had practically disappeared from the Empordà, in addition to that of the lesser kestrel, a bird also in danger and which had suffered a serious regression in most of its breeding area.

The actions have consisted of installing 8 new nesting boxes, in addition to checking 8 boxes placed in previous campaigns. The actions were carried out under the supervision of the Biodiversity Conservation Section of the Territory and Sustainability Department of the Government of Catalonia, of the Park and the Flora and Fauna environmental management area of the Torreferrussa Fauna Centre.



**ENDESA has rescued close to 6,000 native species of fish when emptying the hydroelectric canals of Balaguer and Seròs**, an operation which has taken two years due to maintenance works. During the operation, they removed 39,000 fish of exotic species from the environment.

All the individuals rescued have been transferred with isothermal tanks, which had oxygen, to nearby sites where they have been released, River Segre and the Utxesa and Sant Llorenç de Montgat reservoirs. The entire operation was performed following the indications of the Rural Agents.

The rescue operation has lasted around a week and has been performed by foot using the electric fishing technique.



## El Trabucador underwater powerline comes into operation (*La Vanguardia*, 8 August 2016)

The new powerline of Trabucador, in the Ebro Delta, which supplies electricity to the Salinas de la Trinidad de Sant Carles de la Ràpita and which will allow the dismantling of the posts in the isthmus has come into operation this Wednesday after one year of work. The MV and LV network manager in the Terres de l'Ebre, Luis Agustín Sánchez, has highlighted that it has been "a technologically complex project pioneering in Catalonia" and exceptional measures have been taken to protect the flora and fauna of the Bahía de los Alfaques, where the underwater line has been laid. This line is the first of these characteristics implemented in Catalonia and it is for this reason that ENDESA, responsible for the work, has tested it to check it works correctly before disconnecting the 25kV MV overhead network, which will be removed by the Directorate-General of the Coast and Sea, dependent upon the Ministry of the Environment.



### Environmental protection

With respect to environmental protection, in September a team of biologists and divers transplanted 160 specimens of fan mussels (*Pinna nobilis*), protected species, which are found along the route where the wiring must pass and they were relocated in previously selected nearby habitats.

The plant community of *Cymodocea nodosa* —a species of special interest— has also been protected and the original topography of the terrain has been completely replaced with the use of the same original materials and without the supply of external sand and gravel. It is planned that once the original environmental conditions have been re-established, the affected areas shall be recolonised by natural processes and, within two years, it will return to the situation before line installation.



## The ten best ideas for saving nature 2016

The website for threatened nature and biodiversity NaturaHoy.com has presented its awards to the "The ten best ideas for saving nature 2016". The winners include a project sponsored by Enel Green Power Spain, which allows localising lynxes which are radiomarked and in a faster and more effective way than current localisation techniques.

It is the seventh edition of awards that users of this portal choose with their votes and which, on this occasion, have received the votes of more than 3,000 followers through social networks.

From left to right, José Montero, Director of Naturahoy.com; José Fiscal, Councillor for Environment and Territorial Planning of the Regional Government of Andalusia; Francisco García, Manager of Microsensory; Alfonso Vargas, Regional Delegate of EGPE; José Luis García Palacios, President of the Caja Rural Sur Foundation.



### 3.2.3. Projects with environmental component

G4-EN14

In 2016, 2 projects Biodiversity Conservation Plan projects have commenced in areas where ENDESA operates, which also have a marked environmental component.



One of them is the enrichment of biodiversity in areas with bears in the Lleida Pyrenees. These actions form part of the Piroslife project, headed by the Oso Pardo Foundation and seek the improvement of habitats to encourage the re-introduced population of brown bear in the Lleida Pyrenees and the compatibilisation with human activities in the area.

To achieve the first of the objectives, actions such as planting, in woods, native fruit trees or the restoration of habitats in danger of degradation shall be performed. The compatibilisation with human activities, including ENDESA's hydroelectric activity is guaranteed by the selection of areas of action, holding training and information seminars and the employment of people at risk of exclusion in the area to enrich biodiversity. The choice of these solutions that integrate and make the presence of bears in the area sustainable is what gives an eminently social character to the project.

The areas of action have been chosen in 2016, considering the needs of all entities and groups present in the territory in addition to training seminars. This project will continue to be developed during 2017 and 2018.

## ENDESA corrects close to 300 pylons hazardous for birds of prey in Andalusia in 2016

Energy distribution infrastructures are an evident hazard for threatened birds such as the imperial eagle or Bonelli's eagle. For many years now, ENDESA has been responding to the indications of the Department of the Environment and Territorial Observation in correcting powerlines that are dangerous for birds, especially electric pylons with high risk of causing electrocution.

Throughout 2016, ENDESA has adapted 270 dangerous pylons of their property to reduce the threat they cause certain species, mainly birds of prey, throughout Andalusia, so that 270 fatal black spots have been eliminated.

Of these pylons, 145 have been conditioned within the collaboration framework of ENDESA with the Recovery Plan of the Iberian imperial eagle in Andalusia in the area of distribution of the species, both breeding (Doñana, south of Cadiz, Subbética, Jaén countryside and Sierra Morena mountains) and of temporary dispersion and settling, (Seville, Cordoba, Jaén and Granada countryside).

Furthermore, arising from this collaboration, ENDESA also corrected 12 pylons not owned by it which run through the territory of a pair of imperial eagles in the Seville Sierra Morena mountains that seriously threatened their survival.

The imperial eagle recovery plan is constantly reviewing hazardous powerlines and making proposals for their correction.

*Boletín informativo sobre Geodiversidad y Biodiversidad de Andalucía*

Published: *Department of the Environment and Territorial Planning*



The second project with socioenvironmental component starting in 2016 is reforestation with native and resilient species in La Atalaya, a territory belonging to the municipality of Valdemaqueda (Madrid). This action aims to restore the forest ecosystem in a surface area of 21.52 hectares affected by a recent fire via direct sowing techniques and planting of native forest species. These works will use workers from the area, giving priority to the unemployed, young people, women, over 45s or a risk of exclusion.



This project's aims are threefold, as in addition to favouring the recovery of biodiversity and providing a social benefit, it contributes to mitigating climate change by creating a forest mass, which removes CO<sub>2</sub> from the atmosphere and retains it.

During 2016, a further two socioenvironmental projects started in recent years continued: the study of the trophic effect in cascade of the actions for improvement of the forest ecosystem carried out in the Caza de Boumorte natural reserve and the creation of a breeding group of Mediterranean tortoises.

### 3.2.4. Publications

ENDESA has continued to promote dissemination and knowledge of biodiversity in 2016 through active participation in technical and scientific forums, as well as the publication of its research. During this year, 4 scientific Articles have been published and 6 communications made to

congresses, arising from various Biodiversity Conservation Plan projects.

The presence of ENDESA'S projects in the XVIII Congress of the Iberian Limnology Association, held in Tortosa in July 2016 is particularly worthy of mention. The study of ecological, genetic and metabolic factors that affect trout mobility gave rise to a total of 3 communications in poster forma. The first results of the ultrasound tests as method to eradicate and control the zebra mussel were also presented in poster format, and the study of appraisal of ecosystem services of the Noguera Pallaresa basin was presented to the congress as a speech.

During the thirteenth National Environment Congress (CON-AMA), held in Madrid from 28 November to 1 December 2016, a speech was given on the use of the territory of the Canary Island Egyptian Vulture and the study on the method to eradicate the invasive aquatic plant *Elodea canadensis* in the La Torrassa reservoir. These communications formed part of the Working Group session "Companies and Biodiversity: Mitigation Hierarchy" and of the Technical Session "The challenges of protected natural spaces and Natura 2000", respectively.

ENDESA promotes and encourages that all the activities of its Biodiversity Conservation Plan with results that may be of interest due to their scientific, technical or simply popularisation value be published in the most appropriate manner. Thus, a significant portion of the Plan's activities are eventually published in journals and various information media.

### 3.2.5. Training and seminars

As mentioned in the above section 3.2.3, the biodiversity enrichment project in areas with bear population in the Lleidà Pyrenees has led, in 2016, to training seminars, given by specialised personnel from the Oso Pardo Foundation, to technicians from ENDESA Generación in the area of Vielha. The Foundation technicians provided information on the brown bear and its behaviour in addition to the optimum pro-

cedures to perform in the event of a chance encounter with a bear.

ENDESA, invited by the IUCN (International Union for Conservation of Nature) took part in November 2016 in the conference "Powerlines and birdlife: possible cohabitation". The training in the practice and exchange of knowledge between Spain and North Africa brought together more than 30 experts in conservation and birdlife in Tarifa to work alongside technicians from the Public Administration and electricity companies, and the Tunisian electricity and gas company (STEG).

This conference aimed to exchange experiences in identifying improvements and the correction of hazardous powerlines to reduce the risk of collision and electrocution faced by migratory birds of prey in the Mediterranean when they migrate seasonally. ENDESA shared its wide experience in correcting existing installations and in the technical prescriptions for building new ones.

In the Balearic Islands, ENDESA and the Department of Agriculture, the Environment and Territory of the Balearic Islands Government, held a seminar on protecting birdlife and the prevention of forest fires with the participation of technicians from said department, from the IBANAT (Balearic Islands Nature Institute), from the COFIB (Consorci per la Recuperació de la Fauna de les Balears) and from ENDESA, in addition to of the contracted companies in charge of the areas of pruning and felling and line maintenance works.

The seminar was held in the Menut farm (Escorca) right in the Serra de Tramontana mountains, dealing with the joint issues, such as advance in the LIFE BONELLI project in the Balearic Islands, of the Birdlife agreement both parties maintain and proposals for improvement of the coordination between the Society and responsible for IBANAT in cases of fire.

### 3.2.6. Other initiatives

As part of the commitment acquired by signing the Biodiversity Pact, ENDESA is an active member of the Spanish Company and Biodiversity (IEEB) initiative. This Initiative configured specific working groups in 2015 which have con-



tinued their activity in 2016. These groups are formed by experts from various corporate sectors, technicians from the Administration, representatives from the academic world and territory conservation and safekeeping entities.

Additionally, as signatory of the Biodiversity Pact and member of the IEEB, ENDESA presented the Report "Biodiversity in Companies IEEB" 2013-2016 last year. This report includes specific indicators to assess compliance with the points of the Agreement.



As member entity of the Excellence in Sustainability Club (CES), ENDESA has taken part yet another year by presenting one of its initiatives before the Corporate Biodiversity Management Observatory. The initiative selected for this was the monitoring and assessment via bioindicators of the structure and working of the eco-restored semi-arid habitats in the ash dump of ENDESA thermal power plant in Carboneras (SEBIECO project). This project has formed part of the 2016 Corporate Biodiversity Management Report, published by the CES, together with another 17 cases of good business practices. Additionally, the SEBIECO project was presented as a speech in the report presentation event, which took place in the Madrid Botanical Gardens on 25 October last year. The event was attended by the Secretary of State for the Environment.

Included within the environmental protection initiatives we can highlight that ENDESA has assumed, for the second year running, the sponsorship for the publishing of information on how to prevent forest fires in Andalusia, under the motto "Fire turns your dreams into ashes".

## 3.3. Environmental restoration

G4-EN13

2016 has seen the start of the plant and fauna biodiversity study in 5 restored mining areas of ENDESA: Corta Barrabasa and Corta Gargallo in Andorra (Teruel), Corta Ballesta Estes and Corta Cervantes in Peñarroya (Cordoba) and Puertollano mine (Ciudad Real). The field works in the mining spaces of Cordoba and Ciudad Real have been performed during spring 2016, whilst the works in Teruel are programmed for 2017.

The aim of this biodiversity study in mining areas is to increase the knowledge held on these ecosystems resulting from environmental restoration of open-cut mining areas; monitoring their condition, evolution and integration within the landscape and territory, collecting information on their colonisation process by species of flora and fauna, paying special attention to those which are protected, and in short, enhancing them. An inventory has been made of all species of flora and vertebrate fauna, censuses have been carried out of water birds and digital maps are being prepared for each area studied, among other analyses.

It is estimated that the final conclusions of this study shall see the light during 2017.

On the other hand, as the landfills of ash, slag and gypsum are an environmental liability caused by the electricity generation activity using solid fuel, it is necessary to generate the knowledge that enables providing restoration solutions for these facilities, in addition to the partial or total restoration of the landfill infrastructures that have reached the end of their useful life.

In this context, during 2015, work has started to restore the landfill of Valdeserrana, which have continued during 2016 and are planned to end in 2017.

## Monitoring and appraisal by bioindicators of the structure and working of the eco-restored semi-arid habitats in the ash dump of the Litoral de Almería thermal power plant

The second Report of the Corporate Biodiversity Management Observatory of the Excellence in Sustainability Club, has included ENDESA's good practice in eco-restoration native species in the ash dump from coal burning in the Litoral Thermal Power Plant, in the municipality of Carboneras (Almería). Its design sought to imitate the surrounding native semi-arid plant landscape model, totally adapted to the climatic austerity and soil type typical of the natural environment.



The restoration was performed in 2012, and years later it has been possible to verify that the biodiversity levels in the area are extremely high, and the communities' structure is rather more complex than what would be expected from restored ecosystems. There is great similarity between the natural environment and the restored area. The ash deposited in the sealed dump is acting positively, generating a fertilising effect on the established vegetation.

There are pointers that some species used in the restoration may be phytoremediation or phytoextraction plants. A first example studied in this restoration is that of the cruciferous plant *Diplotaxis harra subspecies lagascana*.




# 4. Resources sustainability Plan









The Iberia Resource Sustainability Plan seeks to contribute to fulfilling ENDESA's Sustainability Plan in those specific areas of action of the Management (Services, Assets and Safety):



## Actions Performed in 2016

### Office buildings

| Action                                    | Description/Objectives  |  |   |
|---|---|--|---|
| Optimising office portfolio               | Reduce the ecological footprint, optimising the use of space and reducing energy consumption, supplies and waste generation | Annual reduction of <b>20,348 m²</b> of spaces used for offices (55% in Andalusia, 40% in Aragon and 5% in other areas)  |  |
| Implementation of new workspaces          | Improve the working environment, promoting innovation, collaboration and exchange of ideas                                  | Establishing new work spaces for <b>468 employees</b> in buildings in Zaragoza, Cordoba and Bilbao   |  |
| Modernisation and adaptation of buildings | Improve the safety, functionality and comfort of buildings, in addition to their integration in the environment             | <b>Execution of 4 actions:</b> <ul style="list-style-type: none"> <li>– Renovation of facades and interiors of the Aznar Molina and Argualas (Zaragoza) and Omeya (Cordoba) buildings.</li> <li>– Renovation of external perimeter Borbolla (Seville)</li> </ul> |  |




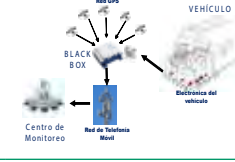

| Action  | Description/Objectives  |  |   |
|---|---|--|---|
| Opening of spaces for socio-economic activities   | Use of underused spaces for third-party uses  | <b>Execution of 2 actions:</b> <ul style="list-style-type: none"> <li>– Facility Management event in the Ribera del Loira auditorium: “wpc beyond 2020 – disruptive conversations about the new normality” (12 May 2016)</li> <li>– Temporary exhibition in Vilanova modernist hall: “40 years of the newspaper <i>El País</i>” (10-13 November 2016)</li> </ul>   |    |
| Conciliation services for employees   | Implementation of services for employees that contribute to the conciliation, improvement of working environment and that encourage efficiency and performance at work (personal procedures, finance, health, sport...) | Provision in the main offices, to date, of <b>42 services</b> relating to personal procedures, health, sports, etc. <ul style="list-style-type: none"> <li>– 15 services in Ribera del Loira</li> <li>– 8 services in Borbolla</li> <li>– 5 in San Juan de Dios</li> <li>– 4 in Woermann</li> <li>– 10 services in Vilanova: including new services implemented in 2016 (delivery of food and pharmaceutical products, smart counters for textile services), for which the “Punt de Trobada” has been enabled, a unique multi-service space for employees with no need to move from where they are.</li> </ul> |    |
| Contracts for auxiliary services in the buildings to special job centres                  | Encourage employment integration of people with physical, mental or sensorial disability  | The total of <b>127 people</b> who provide the auxiliary services in the buildings are contracted to Special Job Centres   |    |
| Triple building certification model   | Consolidate and expand this model in energy, environmental and indoor air quality management to systemise all actions in this regard and integrate them in daily operations   | To date, <b>16 offices with 4,275 employees are certified</b> (they represent 60% of the office workforce)<br><i>* More information in the chapter on: Environmental sustainability / Certification of Environmental management systems</i>  |    |
| Other certifications, accreditations, distinctions or awards                              | Exemplify and demonstrate efficient and responsible management of our buildings   | The Ribera del Loira head office has been granted the <b>“Sustainable building of the Community of Madrid”</b> award   |   |
| Monitoring the buildings' energy consumption uses   | Know consumption distribution, define possible measures to improve and estimate their potential savings   | <b>5 offices</b> are monitored to date (Ribera del Loira, Vilanova, Borbolla, San Juan de Dios and Woermann)   |  |
| Assessment of the energy rating of buildings  | Know the energy-efficiency level, diagnosis of possible improvements and comparison of energy characteristics and features  | Energy rating certificates obtained for <b>26 offices</b> (15% A and B; 58% C and D; 27% E, F and G)   |  |
| Actions in energy-inefficient buildings   | Improve the energy efficiency level of those buildings identified as more inefficient   | Improvement actions performed on <b>6 offices</b> with energy rating between E, F and G: <ul style="list-style-type: none"> <li>– Granada-Escudo del Carmen</li> <li>– Huelva-Paseo de la Glorieta</li> <li>– Lérida-Magraners</li> <li>– Cadiz-Caracola</li> <li>– Ibiza-Centro laboral</li> <li>– Zaragoza-Argualas</li> </ul>   |  |
| Campaign for good practices aimed at building users                                       | Promote a sustainable culture, reinforce the commitment to responsible consumption and engage users in the consumption reduction objectives   | The design and content was prepared of the <b>Good Practices for a more Sustainable Office Guide</b>   |  |
| Donation of the revenue obtained by segregating waste to foundations with social purposes | Actively involve employees in the segregation, promoting a sustainable culture and improve the company image  | <b>3,816 euros</b> obtained by segregation of waste in 2016 in the Ribera del Loira head office donated to the Save the Children fund  |  |

## Other assets



| Action                                  | Description/Objectives   |   |
|---|--|---|
| Sustainability actions on unused assets | Contribute to reinforcing social and environmental commitment of the Company, in addition to improvement | <p><b>Execution of 10 actions:</b></p> <ul style="list-style-type: none"> <li>- In course phase II of the environmental recovery of the land of the former Alcudia power plant (Balearic Islands)</li> <li>- In course conditioning as green route of the Escatrón-Samper (Teruel) stretch of the old mining railway</li> <li>- Formalisation of authorisation in favour of the Montejaque Town Council for the extraction and use of cork from our land (Malaga)</li> <li>- Formalisation of assignment of use of mountain refuges in favour of the Federation of Mountaineers of Catalonia</li> <li>- Formalisation of assignment of use of Guardiola de Berguedà castle in favour of the town council of said municipality (Barcelona)</li> <li>- Formalisation of assignment of land for public equipment in favour of the town council of La Pont de Suert (Lérida)</li> <li>- Formalisation of assignment of use of premises in Nuñez Morgado to the residents' association and used for a nursery (Madrid)</li> <li>- Formalisation of assignment of use of tennis court to the town council of Sallent de Gállego (Huesca)</li> <li>- Formalisation of assignment of use of space in CH Talarn to the town council to be used as an industrial museum</li> <li>- Formalisation of demolition and cleaning of the land of the old train shed in Escatrón (Teruel)</li> </ul> |









## Fleet and mobility of employees

| Action   | Description/Objectives  |   |
|--|---|---|
| Rationalisation of the fleet   | Contribute to reducing emissions, fuel saving and decreasing costs associated to management   | <p><b>35 combustion vehicles</b> eliminated from the Company's fleet</p>   |
| Progressive electrification of the fleet                             | Contribute to reducing emissions, saving fuel and improving the company's image   | <p><b>78 electric vehicles</b> currently in service</p>    |
| Incorporation of lower consumption vehicles in the fleet of vehicles | Contribute to reducing emissions, saving fuel and decreasing costs associated to management   | <p>Replacement of <b>41 combustion vehicles</b> by cars with lower emissions</p>   |
| Optimisation of use of operating fleet                               | Increase vehicle safety, improve operating efficiency of the fleet and contribution to sustainable mobility.                                  | <p><b>1,590 Black Box</b> devices installed to date</p>    |
| Car Sharing  | Pool of electric vehicles in the main office buildings for use of the employees in work activities in order to save fuel and reduce emissions | <p>Launch of service in March: <b>20 electric vehicles currently in service</b> and <b>96,872 km</b> travelled in 2016, over 10 tons of, CO<sub>2</sub> avoided</p>  |




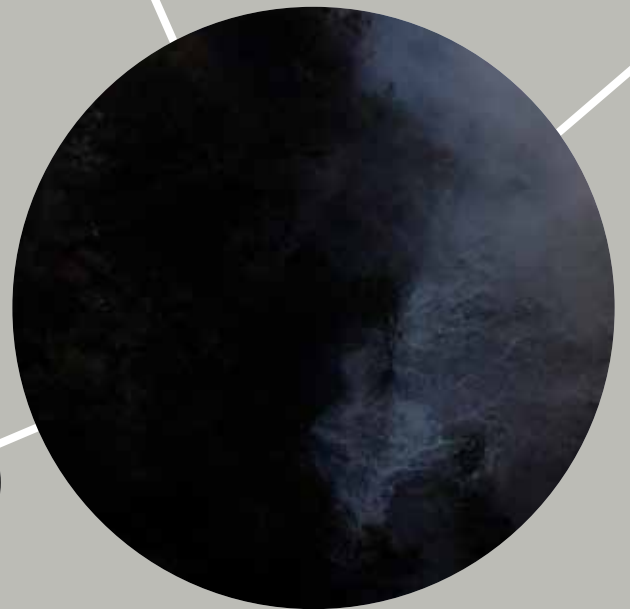
|                              |  |   |   |
|------------------------------|--|---|---|
| Shared taxi                  | Comprehensive management of corporate transport in taxi with the aim of reducing emissions, contributing to sustainable and safe mobility and increasing digitisation and traceability of the service. | Launch of service in July: to date, a total of 857 journeys made with 1,195 passengers, of which <b>26% of shared journeys with a 47% of passengers</b>   |  |
| Sustainable mobility actions | Adoption of measures that contribute to the sustainable mobility of employees, raise awareness in reducing emissions and improving the company image   | <ul style="list-style-type: none"> <li>– Implemented to date <b>3 car parks for electric vehicles with 139 spaces in total</b>, in the offices of Ribera del Loira, Vilanova and Borbolla</li> <li>– Implemented to date <b>4 parking areas for bikes, with 124 spaces in total</b>, in the offices of Ribera del Loira, Borbolla, Aznar Molina and Argualas</li> </ul> |  |

## Safety/Security

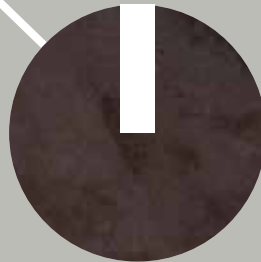
| Action  | Description/Objectives   | Milestones   |  |
|---|--|--|--|
| Intelligence analysis to prevent security risks               | Contribute to good Company governance, prevent situations that place the normal Company operation at risk and preserve the safety of people and assets                               | <b>9</b> analyses performed of the physical and digital environment, <b>5</b> situational analyses and <b>197</b> entities monitored   |   |
| Legal and reputational risks model                            | Contribute to responsible management of supply chain, guarantee compliance with values and other established ethics legislation and preserve the image and reputation of the Company | <b>9</b> counterpart analyses performed  |   |
| Fight against electricity fraud                               | Contribute to preservation of the sustainability of the electrical system, consumer protection and raising awareness in customers and public administrations                         | <b>57 fraud investigations performed:</b> 19 closed and 38 in progress   |   |
| Analysis of possible criminal acts reported by customers      | Contribute to improving the safety conditions of our customers, the quality of the service provided and preserving the image and reputation of the Company                           | <b>16 analyses of possible criminal acts</b> performed   |   |
| Plan to raise awareness in information security to employees. | Train employees in the basic concepts of information security and raise awareness on the risks present in both the professional and family environment                               | <b>8 actions performed:</b> <ul style="list-style-type: none"> <li>– Design and distribution of posters relating to "Life cycle of the datum: destruction"</li> <li>– Distribution of awareness-raising materials (contactless covers, webcam covers...)</li> <li>– Communication message to employees regarding specific risks, linkedin passwords...</li> <li>– Family awareness-raising seminars regarding information security in (4 offices)</li> <li>– Distribution of information leaflets to employees</li> <li>– Attacks aimed at employees (Madrid, Barcelona and Sevilla) to check awareness</li> <li>– Creation of the new security web</li> <li>– 2017 security calendar</li> </ul> | <br> |

## Contractor management

| Action  | Description/Objectives  |   |   |
|---|---|---|---|
| Assessment of performance in contractors as regards social, environmental and ethical conduct | Contribute to the responsible management of the supply chain and guaranteeing compliance by our contractors and suppliers | <b>230 audits</b> performed to contract companies |  |







10\_Supply chain



**1,988 million  
euros**

purchases of materials  
and services

**6,060**

suppliers provided services  
to ENDESA


**461**

Suppliers rated in last 3  
years

**100%**

of the contractors in  
Spain and Portugal  
have received Occupational  
Health and safety Training

## Compliance with 2016-2019 Sustainability Plan

|  | Objective  | 2016<br>(31/12) | 2016<br>Objective | Key actions   |
|--|--|-----------------|-------------------|---|
| <br>Supply<br>chain | % Volume of purchases made to rated suppliers.                               | 65.1%           | 63.0%             | – Rating system: joint work of Enel Group to establish a global assessment model in safety and hygiene, environment, sustainability and ethical behaviour (principles of the Ethics Code; ISO 9001; ISO 14001 and OHSAS 18001). |
|  | % volume of purchases on which performance is evaluated.                     | 55%             | 55%               |   |
|  | % of suppliers that include verification of social and ethical aspects.      | 95%             | 5%                |   |
|  | % of accumulated ratings include verification of safety aspects.             | 75%             | 45%               |   |
|  | % of accumulated ratings that include verification of environmental aspects. | 70%             | 54%               |   |

# 1. Responsible management of the supply chain

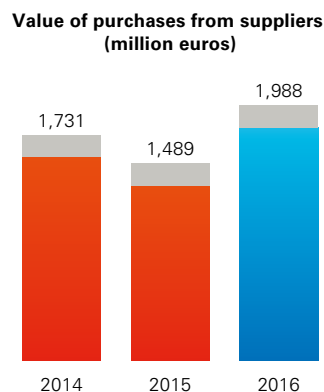
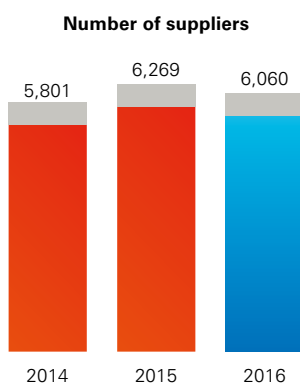
## 1.1. 2016 results

G4-12

In 2016, ENDESA worked with 6,060, suppliers, 3.34% less than in 2015. The value of purchases from suppliers has increased, with respect to 2015, 25%, to 1,988 million euros.

Likewise, the number of days worked by contractors or sub-contractors involved in building, operation and maintenance activities in 2016 was 3,762,865, 11.65%, less than 2015.

### Number of ENDESA suppliers in Spain and Portugal



### Value of purchases from the main ENDESA suppliers in 2016



### 1.1.1. Commitment to local suppliers

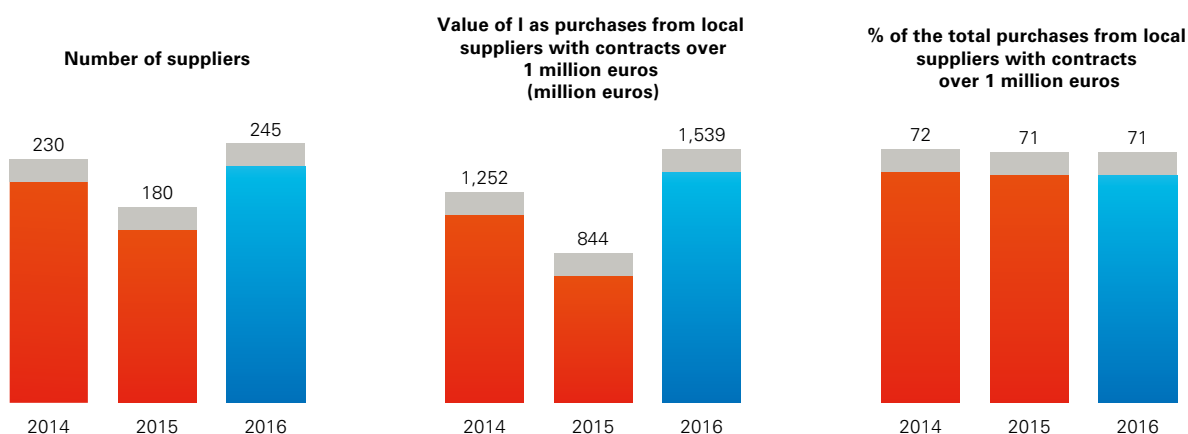
G4-EC9

ENDESA's activity in the countries and territories where it operates is aimed at creating value for local suppliers. In line with our commitment to them, 75% of the budget use

has been allocated to these suppliers, understood as those incorporated in Spain. In 2016, the contracts for amounts over one million Euros to local suppliers came to 1,539 million.

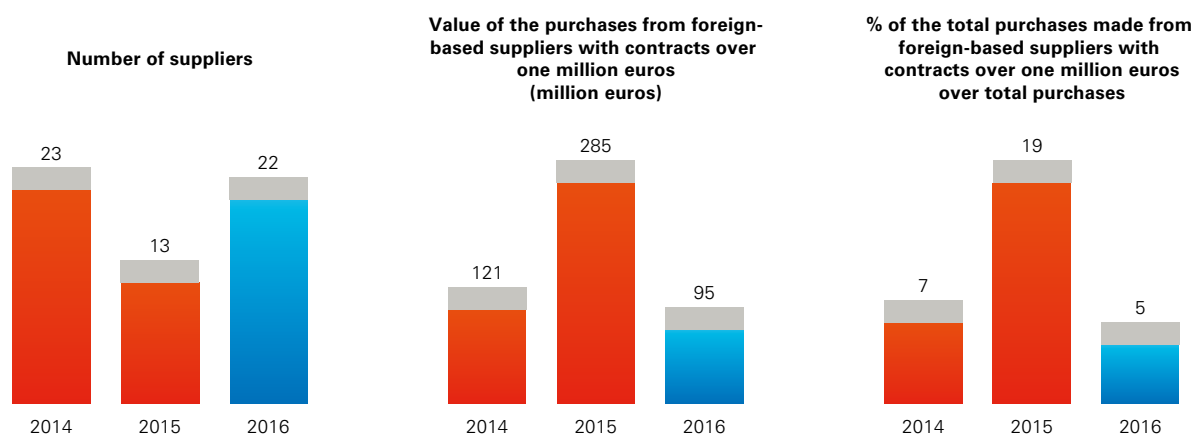
With the purpose of generating value to local suppliers in those countries where ENDESA operates, the percentage of purchases with contracts over one million euros made from local suppliers was 5% in 2016.

## Purchases from local suppliers\* with contracts over 1 million euros



\* Local suppliers are suppliers of materials, products and services located in the same geographic market where the organisation acts, i.e. no international payment is made to the supplier.

## Purchases from foreign-based suppliers in each country



## 1.2. Integrated procurement process in ENDESA

### G4-DMA Procurement practices

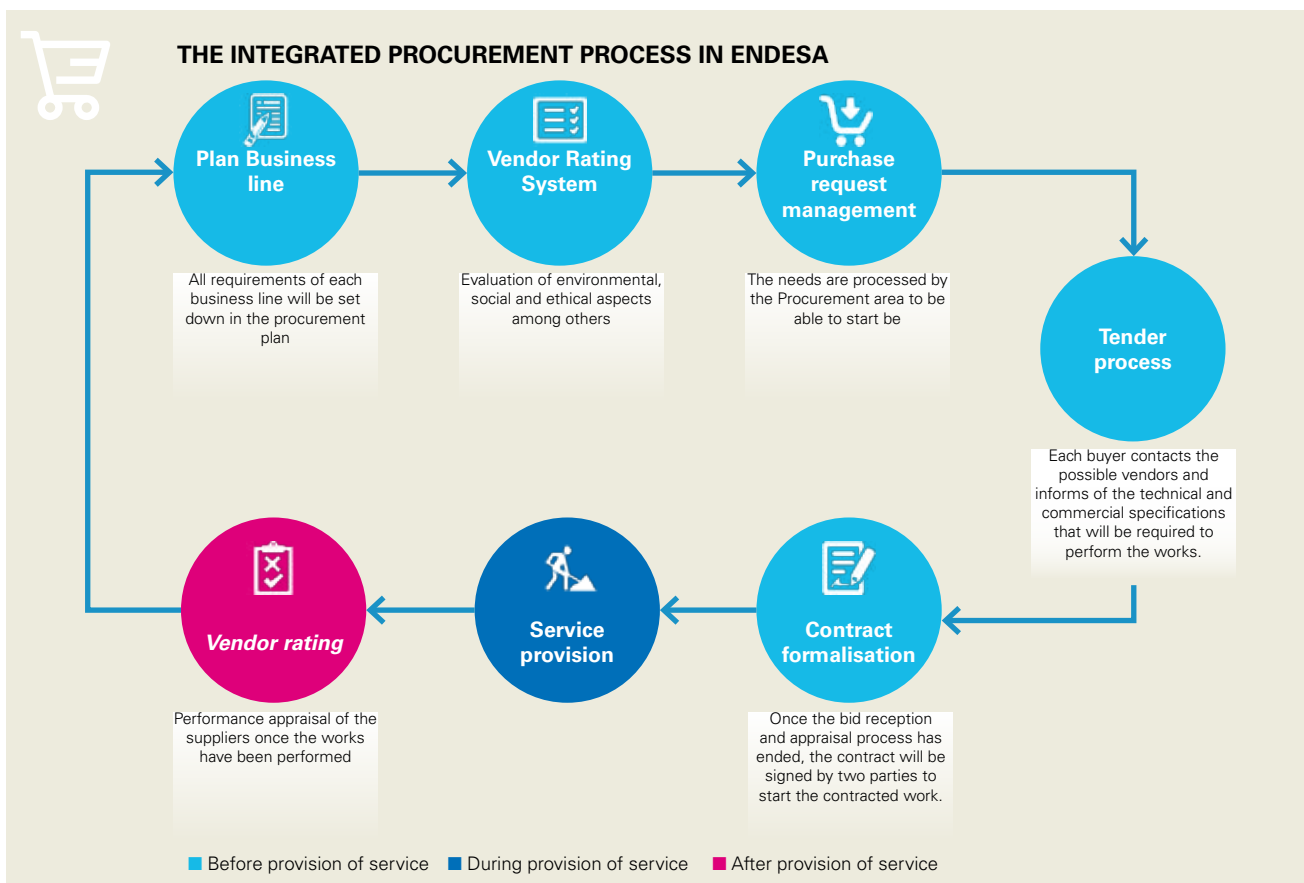
In order to promote responsible management in the supply chain, ENDESA has an integrated procurement process, which requires suppliers to be rated following sustainability criteria (environmental, social, ethical, integrity, human rights) in addition to technical and economic criteria, before the tender process and contract formalisation. Finally, once the service has been provided, its compliance and performance level shall be assessed in said provision.

## 1.3. Sustainability requirements in contracts

### G4-DMA Child labour | G4-HR5 | G4-DMA Forced labour | G4-HR6 G4-DMA Supplier assessment for labour practices G4-HR10 | G4-HR11 | G4-DMA Supplier assessment for impacts on society | G4-S09 | G4-10

In the Sixth Edition of the Enel Group Global General Conditions of Contract (GCC)), which apply to 100% of contracts, the supplier undertakes to fulfil a set of sustainability requirements, including:

- > Environmental management: compliance with environmental legislation, in addition to aspects related to ener-



## Procurement contracts of materials and services that include Human Rights clauses

|   | Year | Spain and Portugal |
|---|------|--------------------|
| Number of significant contracts that include human rights clauses     | 2014 | 263                |
|   | 2015 | 191                |
|   | 2016 | 281                |
| Percentage of significant contracts that include human rights clauses | 2014 | 100%               |
|   | 2015 | 100%               |
|   | 2016 | 100%               |

gy efficiency, the management of Hazardous substances or environmental training, among others

- > Human rights: fully assume and respect the Ten Principles of the Global Compact, both for own staff and contractors.
- > Ethical conduct: apply the same principles established in the ENDESA Ethics Code or other equivalent.
- > Labour and Occupational Health and safety aspects.

## 1.4. Vendor rating

The Vendor Rating System, which came into effect in 2009 to reinforce compliance with applicable legal, employment, safety and environmental protection regulations, has kept in line with the planned development. It establishes whether a supplier meets the requirements to work with ENDESA. This system assesses 4 sustainability criteria applicable depending on the purchase family the supplier belongs to and, therefore, their associated risk:

- > Conduct in line with the general principles of ENDESA Group's Code of Ethics.
- > Assessment of compliance with quality standards (ISO 9001).
- > Assessment of compliance with environmental standards (ISO 14001).
- > Assessment of compliance with Occupational Health and Safety standards (OHSAS 18001).



## GROWTH OF SUPPLIER RATING SYSTEM

### Evolution last 3 years (accumulated)

**774**  
ratings performed

**461**  
rated suppliers

**65,1%**  
of purchase volume

**443** suppliers have ISO 9001 quality certificate (94%<sup>1</sup>)

**386** suppliers have ISO 14001 environmental certificate (83.5%<sup>1</sup>)

**338** suppliers have de certificado de OHSAS 18.001 safety certificate (73%<sup>1</sup>)

<sup>1</sup> Percentage over total rated suppliers in last 3 years.

### Evolution of the last year (annual, new suppliers)

**360**  
ratings performed

**245**  
rated suppliers

**274** ratings on environmental requirements performed on suppliers, which is:

- 76% of the ratings performed in 2016.
- 182 new rated suppliers.

**305** ratings on occupational safety requirements performed on suppliers, which is:

- 85% of the ratings performed in 2016.
- 401 new rated suppliers<sup>2</sup>.

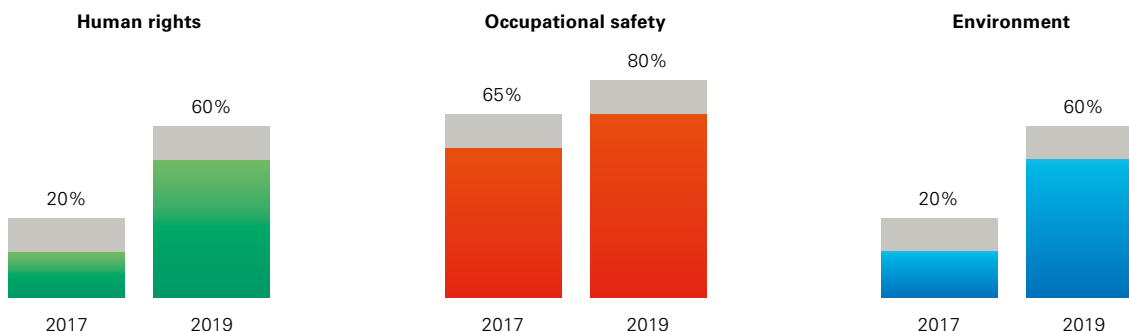
<sup>2</sup> Also includes suppliers assessed for safety issues in *Vendor Rating system*.

Those suppliers without these certifications and that belong to purchase families they are considered mandatory for, ENDESA shall request a series of specific requirements similar to those established in the certifications.

At the end of 2016, the Supplier rating system had been implemented in 185 purchase families, 120 global families (international rating) and 65 local families in ENDESA.

## Objectives of the supplier rating system

% of the ratings performed on suppliers where the following aspects are verified:



Accumulated data.

Note: Objectives established according to the new Enel Group system to verify sustainability aspects in the supplier rating process. These objectives do not consider the CSR verifications performed by the REPRO system, at ENDESA's disposal and which cover 95% of ENDESA's main suppliers.

In order to promote continuous improvement with responsible management of the supply chain, Enel Group, has reviewed and improved the sustainability requirements established in the vendor rating process. Hence, we have updated the occupational safety, environmental and integrity requirements, plus a new human rights requirement. These requirements will come into force in 2017.

ENDESA is part of the Achilles Repro platform (Supplier Register). This platform is, in fact, an online community of the utilities, oil and gas industry for Southern Europe and Latin America, which connects buyers and suppliers with the aim of allowing the utilities to manage and reduce the risk of their supply chain via a rating system that compiles and checks supplier information. This platform includes performance of social audits, which in 2016, were 149 for Spain and Portugal, of which 38 were ENDESA suppliers.

## 1.4.1. Integrity and fight against corruption

**G4-DMA Supplier assessment for impacts on society**  
**G4-SO10**

ENDESA strengthened the controls related to compliance with supplier integrity requirements, in groups of items and contracts that are most sensitive in this aspect.

On 26/10/2016, organisational procedure number 209, «verification of honourability requirements» was approved

The Company's operating guidelines are designed to strengthen the control system existing in the supply chain through more effective action against corruption, and in particular:

- > Establishing specific criteria to verify the legal requirement and honourability documents, homogeneous and applicable to the procurement process (from rating phase to award of each contract).

- > Identification of the verification operating methods, aimed at reinforcing the available prevention tools designed to rationally, organically and decisively influence the opportunities for corruption and the factors that encourage dissemination.
- > Promotion of widespread culture of respect for ethical standards

## 1.4.2. Compliance with Human rights

**G4-DMA Supplier assessment for labour practices**  
**G4-LA14 G4-LA5 G4-HR11**

In 2016, 100% of ENDESA suppliers (including new suppliers) are examined for human rights criteria, a requirement which is also included in the ENDESA General Conditions of Contract. There are no negative impacts in this area.

### Mains contractors and suppliers assessed for human rights

|   | Year | Spain and Portugal |
|---|------|--------------------|
| Significant suppliers and contractors assessed for human rights               | 2014 | 202                |
|   | 2015 | 102                |
|   | 2016 | 234                |
| Percentage of significant suppliers and contractors assessed for human rights | 2014 | 79,84%             |
|   | 2015 | 51%                |
|   | 2016 | 100%               |

Likewise, through the REPRO system, suppliers are assessed according to Human Rights aspects, including sustainability criteria. In 2016, 95% of the ENDESAs rated suppliers present in the REPRO system had been assessed following these criteria.

During 2017, Enel Group will introduce new specific human rights criteria, which is expected to cover 20% of rated suppliers in 2017 and 60% in 2019.



## 1.4.3. Environmental management

G4-DMA Supplier Environmental Assessment | G4-EN32

For the rating families considered mandatory, the supplier must have an Environmental Management system according to Standard ISO 14.001 for the works and services relating to the activities object of this rating, certified by a body accredited by ENAC, with the certifying body also providing the scope of certification and expiry date thereof.

In any case, for suppliers without ISO 14001 certificate, in those rating families that do not require it as mandatory, compliance with the following environmental requirements shall be assessed:

- > Have or be developing an environmental policy.
- > Have a procedure for managing and controlling the waste generated in the works, indicating the controls performed.
- > Guarantee, and where necessary, certify, that the staff who are going to be performing the works subject to the rating has or receives the correct theoretical/practical training to do this and, in particular, that necessary to guarantee correct environmental behaviour and reduce the risk of an incident with environmental repercussions.
- > Indicate if the supplier has established other environmental procedures.

The supplier must also indicate the people responsible for environmental management, with detail of training, post and experience in the activity of each member.

Likewise, no impacts of environmental nature have been detected in the performance of contracts that has led to rating suspensions or proposal of an improvements plan to be implemented in order to recover the status of rated vendor.

## 1.4.4. Occupational Health and safety

Through the rating system (started in 2010 with the Safety Action Plan), ENDESA identifies all contractors and collaborators that perform risk activities in Company facilities.

Now that the Emergency Plan has concluded for all risk families, this audit has become a rating requirement for all suppliers who do not hold OHSAS 18001 accreditation. Onsite audits of the prevention system have also been introduced as development of said audit model. These new onsite audits also incorporate, with respect to the previous ones from the Action Plan, a combined visit to the contractor's offices and workplaces onsite to ensure the OHS system is working efficiently. The onsite audits are carried out by multidisciplinary audit teams comprising a business technician, an OHS specialist and a specialist in supplier rating.

During 2016, no new objectives have been established to continue performing onsite audits, with the main risk activities being covered by them. The efforts have centred on preparing a global occupational safety assessment methodology which will be implemented in 2017, forming part of the sustainability requirements. This assessment shall be performed through applying different criteria:

- > Completion of safety questionnaires and providing information.
- > Analysis of the accident rate indices (frequency and severity indices, number of fatal accidents).
- > Establishing limit values, outside of which the suppliers shall not be rated and interval values where the supplier shall be required to perform document and onsite audits.

For reasons of safety, there have been two rating suspensions during 2016, one due to a fatal accident of a worker from a subcontractor company. In both cases, the suspension, established according to the Company's internal policy for these issues, was followed by the implementation and execution of an improvement plan. After correct assessment, and once the minimum suspension period established in the global operating note (*repeated violations of health and safety and procurement procedures*) approved in May 2016, had concluded the rating was re-established for both suppliers.

## 2. Extending health and safety to partner companies



ENDESA conveys the following commitments with the aim of extending occupational health and safety among its partner companies:

- > Qualification of technical requirements in safety for risk-related activities.
- > Promoting OHSAS 18001 certification for these activities.
- > Extensive commitment to Occupational Health and safety management and information in the General Conditions of Contract.

Therefore, contractors are examined before the contracting process (Vendor Rating) and during the contract activity (assessment of health and safety results), with the possible application of an administrative and/or financial sanction in the event of breach of safety standards or having suffered a significant event.

The new Operating Instructions published throughout 2015 regarding contractor management, establish a framework of action adapted to the Company's new organisational guidelines.

- > IO010. Legal-employment and Occupational Health and Safety Management of Contractors.
- > IO022. Supervision of the duties of the Health and Safety Coordinator.
- > IO023. Management of serious and very serious breaches of contractors and sub-contractors in Iberia.

This set of regulations establishes in general the framework of action that the contractor must comply with prior to performing work and, in particular, the mandatory nature of preparing a Specific Occupational Health and Safety Plan for the works contracted, specifying the protection equipment to be used. Likewise, follow-up and control actions should be performed on the works (in vigilando). In addition, each accident is analysed in a committee made up by experts from the OHS Service, of the unit where it has taken place and Procurement experts, establishing the corrective measures to avoid a similar situation from being repeated.

Furthermore, the General Conditions of Contract require contracting companies to provide specific health and safety training for workers, based on the risks of the contracted activity.

Before starting the work activity, all employees are checked to verify that they have been trained and informed about occupational health and safety connected to the risks of the activity to be fulfilled. In addition, they must have the appropriate medical skills to fulfil the job, and acknowledge receipt of the appropriate Personal Protection Equipment for the activity.

Here at ENDESA we consider that onsite controls are vital to verify that safety conditions are met and to monitor and correct any safety defects in its performance. Hence, 56,268 inspections have been performed in Iberia on works and/or projects by contractors that have significantly contributed to reducing accidents. In the past year, inspections and audits have intensified, several innovation projects have been promoted and our attention has continued to be given to our action plans against accidents and health programmes.

In addition to the inspections performed on work onsite, the Company Management has performed more than 400 Safety Walks, where a Director of the business, together with the Joint Occupational Health and Safety Service, visit operational work or industrial facilities to check the safety conditions of the area in situ, checking the points observed

and generating a report should any deficiencies be found. The corporate programmes include, in addition to the Safety Walks, application of the One Safety program and with the OHS Inspections to Prevent Accidents (IPAL), a vital tool for risk management of contractors.

Special emphasis is given to training personnel exposed to risk of electric shock, those working at a height, those responsible for onsite occupational risk prevention or those working as site foremen, as well as OHS resources and health and safety coordinators.

## 2.1. Risk activity control program

ENDESA executes a control plan over all risk activities where contractor companies intervene in order to guarantee that the works performed are done so with the same safety and control levels as those performed by its own staff.

This objective is integrated in ENDESA's strategy through implementing specific work plans that seek to consolidate the leadership model based on involvement and example by the entire control chain, and by applying a single and global work behaviour system.

- > Inspection plans for the analysis and control of the risk works performed in ENDESA's main business lines. 65,675 inspections were performed in 2016 in the different businesses.
- > Extra Checking On Site (ECoS) action program. A team of experts formed from colleagues from different companies visit production centres to observe specific works, comparing and promoting the best practice observed in the rest of the organisation.
- > SPP (Safety Personalized Plan) program in ENDESA Generación where the most important contractors meet in the power plant to comment from bottom-up those risk prevention actions all consider most relevant. The plan is regularly monitored and the information recorded in a corporate app.

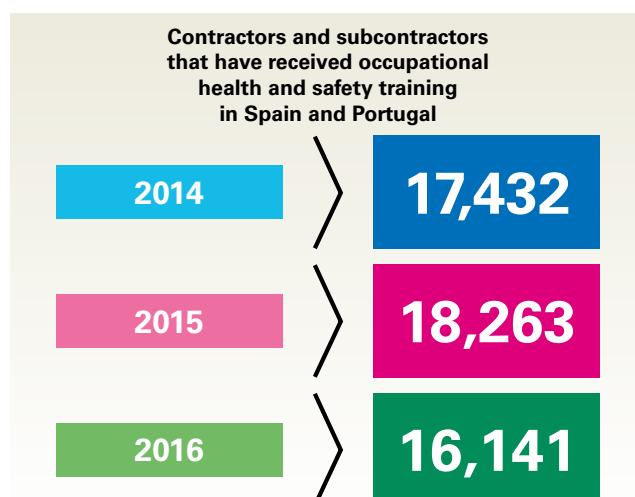
ENDESA also carries out different annual initiatives within its long-term continuous improvement strategy of the Occupational Health and Safety level. The activities performed in 2016 as part of said strategy have mainly focussed on specific action plans against accident rate, maintenance and creation of new alliances with partner companies, and on various action plans with contractor companies with high accident rate.

## 2.2. Contractor training

In 2016, 100% of ENDESA's contractors and sub-contractors received occupational health and safety training to perform their activities.

**100% of contractors in Spain and Portugal have received Occupational Health and Safety training**

Until 2012, the number of rated suppliers considered the number of ratings plus the audits carried out on suppliers not holding OHSAS 18001 certification from the families requiring it.



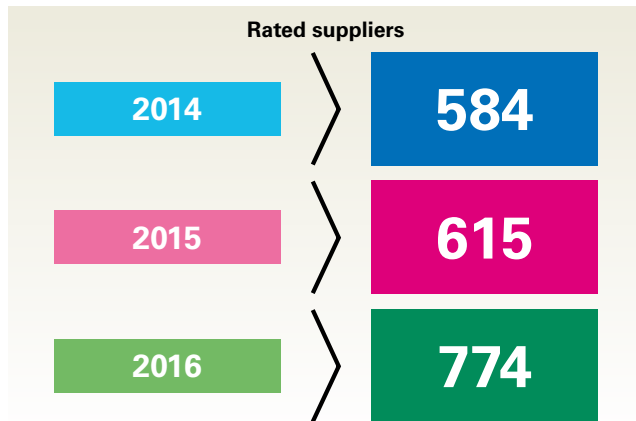
In 2013, the strategic Occupational Health and Safety families were included in the rating system, where, in addition to the OHS requirements, legal, economic-financial issues, quality and/or environment management systems, etc. were evaluated.

In 2013, the strategic Occupational Health and Safety families were included in the rating system, where, in addition to the OHS requirements, legal, economic-financial issues, quality and/or environment management systems, etc. were evaluated.

## 2.3. The results of a joint effort

ENDESA's commitment to raising awareness of occupational health and safety among its employees and contractors has continued to pay off in recent years.

The total number of minor accidents in the contractor staff in Spain and Portugal has decreased by 3.36 % with respect to 2015, being 45.42 in 2016.



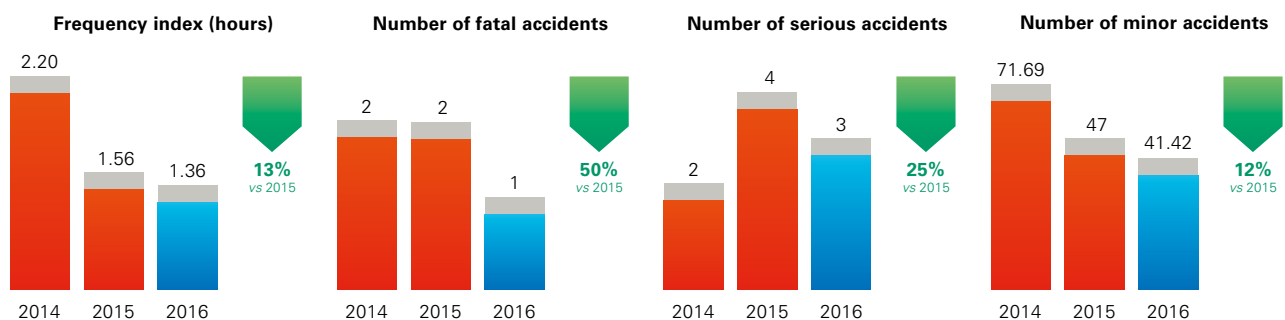
Serious accidents have reduced from 4 in 2015 to 3 in 2016.

There was 1 fatality registered among contractor company staff this year.

The accident frequency rate of these employees in Spain and Portugal has gone from 1.56 in 2015 to 1.36 in 2016.

Throughout 2016, inspections continued to be performed on companies from the sectors considered most hazardous, placing emphasis on the maintenance activity

### Accident rate indicators



# 3. Responsible management of the coal supply chain (Bettercoal)

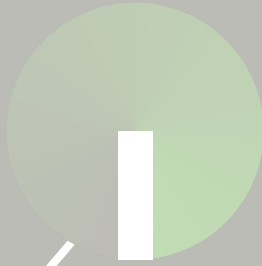
ENDESA, as part of Enel, a founding member of Bettercoal has played an active role from the start, both in defining the code, policies and governance systems of Bettercoal, as well as implementing the code at its own mining centres and informing of its standards to its local coal suppliers, initially excluded from Bettercoal's priority scope of action which, although it has a universal vocation, initially focusses on major coal exporters to Europe.

The Bettercoal Code has been developed with the support of an independent group, representing the different stakeholders and formed by experts from civil society, trade unions and the mining community. It has also undergone a global public consultation which included meetings with stakeholder groups in South Africa, Colombia, Indonesia and Russia, all large coal producing countries.

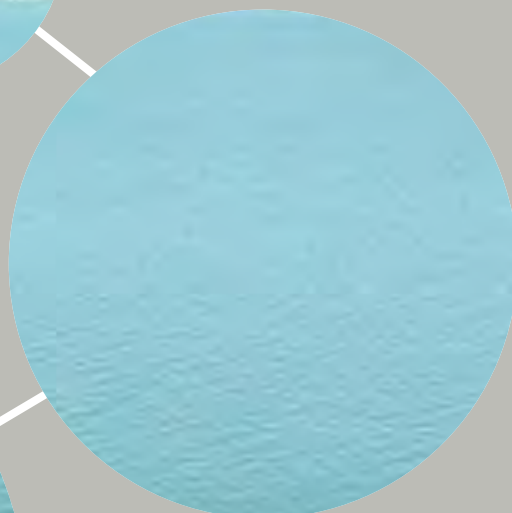
The Code informs suppliers of the expectations of the Bettercoal members, with regard to its practices in four key areas: management, ethical performance and transparency, human and labour rights and environmental performance.

ENDESA, as part of Enel, a founding member of Bettercoal has played an active role from the start, both in defining the code, policies and governance systems of Bettercoal, as well as implementing the code at its own mining centres and informing of its standards to its local coal suppliers, initially excluded from Bettercoal's priority scope of action which, although it has a universal vocation, initially focusses on major coal exporters to Europe. In this regard, the initiative has continued to make progress in 2016 in performing onsite audits and performing self-diagnosis processes.









11\_Appendices



# Appendix I. ENDESA's commitment to information on sustainability

## G4-5/G4-31/G4-DMA Environmental grievance mechanisms

ENDESA has an unavoidable commitment to transparency that is materialised with the regular public information supplied through the different channels open for stakeholders.

ENDESA gives a public account through the ENDESA website, [www.endesa.com](http://www.endesa.com) that also provides quarterly information to shareholders and financial markets, which also have the ENDESA Shareholders' Office at their disposal. On an annual basis and at the end of the business cycle, the Sustainability Report is published, which informs of the main actions performed throughout the year, offering a response to the stakeholders' expectations based on the ENDESA Sustainability Plan.

In addition to the Sustainability Report, ENDESA also publishes annually at the end of the financial year, other corporate reports, among which we can highlight, the Activities Report, the Legal Documentation and the Corporate Governance Report. Additionally, the Company informs of its activities related to the commitment upheld with Spanish society and which it channels through its foundations (Endesa Foundation and Sevillana Endesa Foundation), which it does through the annual reports of both foundations.

Thus, ENDESA informs its stakeholders of its commitment to long-term value generation in the communities where it operates, projecting its corporate mission, values and vision in its performance and decision-making.

If readers would like more information on Sustainability, they have the following channels at their disposal:

## Website

[www.endesa.com](http://www.endesa.com)

## Customer channels

### > Customer Service:

- Deregulated market customers: 800 76 09 09 / From abroad: 0034 937 061 510
- VPSC Customers (Voluntary Price for Small Consumers): 800 76 03 33 / From abroad: 0034 937 061 509
- Businesses: 800 76 02 66
- ENDESA Distribución: 902 509 600 / From abroad: 0034 937 061 513
- ENDESA One: 900 81 49 83

### > <https://www.endesaclientes.com/>

### > <http://www.endesaone.com/>

### > [www.endesa.es](http://www.endesa.es)

### > [www.endesadistribucion.es](http://www.endesadistribucion.es)

### > Customer Ombudsman:

- <https://www.endesaclientes.com/defensor-cliente.html>
- <http://www.defensordelcliente.endesa.es/defcl/index.jsf>

## Shareholders and investors

### > Investor Relations Office:

- Spain:  
Ribera del Loira, 60. 28042 Madrid.  
Tel. + 34 91 213 1503  
[ir@endesa.es](mailto:ir@endesa.es)

- > Shareholders' Office Spain:  
Ribera del Loira, 60. 28042 Madrid.  
Tel. 900 666 900.  
eoaccionista@endesa.es

## Suppliers

- > <https://globalprocurement.enel.com/es.html>  
C/ Ribera del Loira, 60. 28042 Madrid.  
Telephone: 0034 914 558 838
- > <https://globalprocurement.enel.com/es/Formulariode-contactos.html>  
e-mail: cenit@endesa.es

## Employees and their representatives

- > Corporate Portal: Intranet
- > Employee mailboxes:
  - Andalusia, Extremadura, Ceuta and Melilla:  
ae.sur@enel.com
  - Aragón: atención\_al\_empleado\_aragon@enel.com
  - Balearic island: bal.atencionempleado@endesa.es
  - Canary island: can.ae@enel.com
  - Catalonia: fbcncaec@enel.com
  - Centre and other territories: atempleadomadrid@enel.com
- > Websites of ENDESA's trade unions:
  - [www.ugtendesa.com](http://www.ugtendesa.com)
  - [www.ccooendesa.com](http://www.ccooendesa.com)
  - [www.asie-sindical.com/](http://www.asie-sindical.com/)

## Service to the general public

- > Sustainability: sustainability@endesa.es
- > Ethics Channel:  
<https://www.endesa.com/es/inversores/a201611-conducta-etica.html>  
<https://secure.ethicspoint.eu/domain/media/es/gui/102504/index.html>

### G4-31

For service to all stakeholders regarding Sustainability-related topics and issues related to the content of ENDESA's Sustainability Report, the contact person is:

### Ms María Malaxechevarría Grande

*ENDESA Director of Sustainability*

Ribera del Loira, 60

28042 Madrid (Spain)

email: sustainability@endesa.es

### G4-5

## ENDESA Head Office

Ribera del Loira, 60

28042 Madrid (Spain)

# Appendix II. Independent review report



## INDEPENDENT REVIEW REPORT ENDESA, S.A. 2016 SUSTAINABILITY REPORT

To the Management of ENDESA, S.A.

### Scope of Work

At the request of the Management of Endesa, S.A (hereinafter, Endesa), we have conducted a review of the sustainability information contained in the attached "2016 Sustainability Report" (hereinafter, the Report) of Endesa and in the GRI content index included as Appendix III. This report has been produced in accordance with the following guidelines:

- The Global Reporting Initiative's (GRI) Guide for preparing Sustainability Reports, version 4 (G4) and its sector supplement, Electric Utilities Sector Supplement.
- The principles set down in Standard AA1000 APS 2008, issued by AccountAbility (Institute of Social and Ethical Accountability).

The perimeter considered by ENDESA to prepare the Report is defined in section 4 "Report Coverage" of the "Defining priorities" chapter of the attached report.

The preparation of the attached report, in addition to its content, is the responsibility of Endesa's Management, who are also responsible for defining, adapting and maintaining the internal management and control systems from which information is obtained. It is our responsibility to issue an independent report based on the procedures applied in our review.

### Criteria

Our review process has been performed in accordance with:

- The Guidelines for reviewing Sustainability Reports, issued by the Spanish Institute of Chartered Accountants (ICJCE).
- Standard ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC), with a limited level of assurance.
- AA1000 Assurance Standard (2008) of AccountAbility, under a moderate assurance commission (type 2).

### Procedures performed

Our review work has consisted of asking questions to the Sustainability Department and the various Business Units that have participated in the preparation of the attached Report, and in the application of certain analytical procedures and review tests through sampling, which are described in the following:

- Interviews with the parties responsible for preparing the sustainability information with the purpose of obtaining knowledge about how the sustainability policies and objectives are considered to be put into practice and integrated in Endesa's strategy.
- Analysis of the processes for compiling and validating the sustainability information provided in the attached Report.
- Verification of the processes Endesa has to determine what the material aspects are, in addition to stakeholder participation therein.
- Review of the suitability of the structure and content of the sustainability information as indicated in the Guide for preparing Sustainability Reports, version 4 (G4) and its sector supplement, Electric Utilities Sector Supplement, for the preparation of reports according to the "Comprehensive" option and the principles of Standard AA1000 APS 2008.
- Verification based on sample selections, of the qualitative and quantitative information of the indicators included in the GRI content index included as Appendix III to the Report and its suitable compilation from the data supplied by the sources of information. The review tests have been defined for the purposes of providing the indicated assurance levels.
- Contrast that the financial information included in the report has been audited by independent third parties.

These procedures have been applied to the sustainability information contained in the attached Report and in the GRI content index attached as Appendix III, with the aforementioned perimeter and scope.

The scope of our review is substantially less than that of a work of reasonable assurance. As such, the assurance given is also less.

This report should in no way be considered an auditing report.



### **Independence**

We have carried out our work pursuant to the standards of independence required by the Code of Ethics of the International Federation of Accountants (IFAC).

The work has been performed by a team of sustainability specialists with extensive experience in this type of information.

### **Conclusions**

As a result of our review, no aspect has come to light that would lead us to believe that the sustainability information contained in the Report has not been prepared, in all significant aspects, according to the Global Reporting Initiative's Preparation Guide for Sustainability Reports (version 4), and its sector supplement, Electric Utilities Sector Supplement, which includes reliability of data, suitability of the information presented, and lack of significant deviations and omissions, with the GRI content having been reviewed according to the G4 guide attached as Appendix III.

Regarding Endesa's application of the Standard of principles of AccountAbility AA1000 APS 2006, no aspect has come to light that indicates to us that Endesa has not applied the principles of inclusivity, relevance and responsiveness as detailed in the "Defining Priorities" chapter of the attached report.

### **Recommendations**

We have presented our recommendations as regards areas for improvement related to the application of the principals of standard AA100 APS 2008 and to relationships with the main stakeholder groups identified to ENDESA's Sustainability Department.

The following is a summary of the most important observations:

- **Inclusivity:** ENDESA identifies and classifies the stakeholder groups at a domestic and international level in accordance with the current situation of the Company. For each stakeholder group, it also performs segmentation of the groups forming it and thus be able to optimise the identification of dialogue and consultation channels. We recommend continuing to perform regular internal and external consultations with the most relevant stakeholder groups to guarantee their inclusion in Endesa's sustainability strategy.

- **Relevance:** On annual basis, ENDESA performs a process to identify and assess the priority issues that are relevant for the stakeholder groups, which form part of the company's strategic priorities and form the structure of the attached report. We recommend supplementing this assessment through interviews with executives, that allow greater proximity to the material issues in each area of action of the company.

- **Responsiveness:** Endesa promotes continuous interaction with its stakeholders through various communication channels and procedures that form its management systems. Through this interaction, the company gains knowledge of the needs and expectations of the stakeholders. We recommend incorporating new tools and formulas to move closer to the different stakeholders, such groups and working dynamics or direct consultations with the stakeholders to assess Endesa's performance in its responsiveness.

This report has been prepared exclusively for the interest of ENDESA, S.A., in accordance with the terms of our engagement letter.

ERNST & YOUNG, S.L.



AA1000  
Licensed Assurance Provider  
900-59

Maria del Tránsito Rodríguez Alonso  
Member

Madrid, 9 March 2017

# Appendix III. GRI Content Index in accordance with the G4 Guide



G4-32

## Basic General Content

### Basic general content

### Page

It is possible that the data related to the Compulsory basic content in the options "in accordance" with this Guide have already been stated in other reports prepared by the organisation. In those circumstances, the organisation may avoid including the information again in its sustainability report, adding instead its place of reference so that the readers can find the pertinent information.

### External verification

Indicate if the element of the basic content has been externally verified. If so, indicate on what page of the report the external verification can be consulted.

### STRATEGY AND ANALYSIS

|      |  |
|------|--|
| G4-1 | Letter from the Chairman/Letter from the CEO   |
| G4-2 | Ch. ENDESA's Sustainability Plan: 1. Compliance with ENDESA's 2016-2019 Sustainability Plan/ 2. ENDESA's new 2017-2019 Sustainability Plan/ Ch. Defining Priorities: 3.2. Results of the Materiality study/ Ch. Getting to know ENDESA:4.2 Main sustainability risks |

### ORGANISATIONAL PROFILE

|       |  |
|-------|--|
| G4-3  | Ch. Getting to know ENDESA: Section 1. About us<br>Ch. Getting to know ENDESA: 1.2. Main activities/1.3. Main markets/1.4. Organisational structure<br>Appendix I  |
| G4-6  | Ch. Getting to know ENDESA: 1.3. Main markets  |
| G4-7  | Ch. Getting to know ENDESA: 1.4. Organisational structure  |
| G4-8  | Ch. Getting to know ENDESA: 1.3. Main markets  |
| G4-9  | Ch. Our People: 1. ENDESA's workforce  |
| G4-10 | Ch. Our People: 1. ENDESA's workforce  |
| G4-11 | Ch. Our People: 5. Social dialogue   |
| G4-12 | Ch. Supply chain: 1.1. Results in 2016   |
| G4-13 | Ch. Innovation and Digitisation: 1.4 Innovation in the grid/ Ch. Getting to know ENDESA: 1.4.2. Renewable energies: ENDESA Renewable energies/ 3.2 Shareholder Participation / 6.4.2 Dividend/<br>Ch. Defining Priorities: 4. Coverage of the Report |
| G4-14 | Ch. Environmental sustainability: 1.2. Environmental objectives  |
| G4-15 | Ch. Getting to know ENDESA: 2.3. Commitment to the UN Agenda   |
| G4-16 | Ch. Getting to know ENDESA: 2.4. Participation in Sustainability Forums and Associations   |
| EU1   | Ch. Getting to know ENDESA: 1.1. ENDESA in Figures   |
| EU2   | Ch. Getting to know ENDESA: 1.1. ENDESA in Figures   |
| EU3   | Ch. Getting to know ENDESA: 1.1. ENDESA in Figures/Ch. Customer orientation:   |

### IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES

|       |   |
|-------|---|
| G4-17 | Ch. Getting to know ENDESA: 1.4. Organisational structure   |
| G4-18 | Ch. Defining Priorities: 1. The identification process of priority issues; 3.1. Materiality study |
| G4-19 | Ch. Defining Priorities: 3. Materiality study results   |
| G4-20 | Ch. Defining Priorities: 3.1. Materiality study/4. Coverage of the Report                         |
| G4-21 | Ch. Defining Priorities: 3.1. Materiality study/4. Coverage of the Report                         |
| G4-22 | Ch. Defining Priorities: 3.1. Materiality study/4. Coverage of the Report                         |
| G4-23 | Ch. Defining Priorities: 3.1. Materiality study/4. Coverage of the Report                         |

### STAKEHOLDER ENGAGEMENT

|       |  |
|-------|--|
| G4-24 | Ch. Defining Priorities: 2.1. Identification of the stakeholders |
| G4-25 | Ch. Defining Priorities: 2.3. Prioritisation of stakeholders     |

|                             |   |
|-----------------------------|---|
| G4-26                       | Ch. Defining Priorities: 2.2. ENDESA's communication channels with its stakeholders |
| G4-27                       | Ch. Defining Priorities: 3.2.2. Priority issues for each stakeholder group          |
| <b>REPORT PROFILE</b>       |   |
| G4-28                       | Ch. Getting to know ENDESA: 7. Report profile                                       |
| G4-29                       | Ch. Getting to know ENDESA: 7. Report profile                                       |
| G4-30                       | Ch. Getting to know ENDESA: 7. Report profile                                       |
| G4-31                       | Ch. Getting to know ENDESA: 7. Report profile/Appendix 1                            |
| G4-32                       | Appendix III: GRI content index in accordance with the G4 guide                     |
| G4-33                       | Ch. Getting to know ENDESA: 7. Report profile/Appendix II                           |
| <b>GOVERNANCE</b>           |   |
| G4-34                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-35                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-36                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-37                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-38                       | Ch. Getting to know ENDESA: 3.3. Leadership of the Board of Directors               |
| G4-39                       | Ch. Getting to know ENDESA: 3.3. Leadership of the Board of Directors               |
| G4-40                       | Ch. Getting to know ENDESA: 3.3. Leadership of the Board of Directors               |
| G4-41                       | Ch. Getting to know ENDESA: 3.5. Directors' responsibilities and duties             |
| G4-42                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-43                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-44                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-45                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-46                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-47                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-48                       | Ch. Getting to know ENDESA: 3. Good Governance Model                                |
| G4-49                       | Ch. Getting to know ENDESA: 3.3. Leadership of the Board of Directors               |
| G4-52                       | Ch. Our People: 4.3. Remuneration policy  |
| <b>ETHICS AND INTEGRITY</b> |   |
| G4-56                       | Ch. Getting to know ENDESA: 5.3. Criminal Risks Prevention Model                    |
| G4-57                       | Cap Conociendo ENDESA: 5.6. Canal Ético   |
| G4-58                       | Ch. Getting to know ENDESA: 5.6. Ethics Channel                                     |

## Specific basic content

| Information on management approach and indicators | Page  | Omissions identified  | Justification of possible omissions  | Motives for omitting this information   | External verification   |
|---|---|---|--|---|---|
|   | It is possible that the data related to the Compulsory basic content in the options "in accordance" with this Guide have already been stated in other reports prepared by the organisation. In those circumstances, the organisation may avoid including the information again in its sustainability report, adding instead its place of reference so that the readers can find the pertinent information | There are exceptional situations where it is not possible to disclose certain data. In said case, indicate what information has been omitted. | There are exceptional situations where it is not possible to disclose certain data. In said case, explain how the omission is justified. | There are exceptional situations where it is not possible to disclose certain data. In said case, indicate why said information has been omitted. | Indicate if the element of the basic content has been externally verified. If so, indicate on what page of the report the external verification can be consulted. |

### CATEGORY: ECONOMY

#### MATERIAL ASPECT: ECONOMIC PERFORMANCE

|        |  |
|--------|--|
| G4-DMA | Ch. Getting to know ENDESA: 6.2. Generation of wealth in 2016  |
| G4-EC1 | Ch. Getting to know ENDESA: 6.1.1. Profits generated/6.2. Generation of wealth in 2016   |
| G4-EC2 | Ch. Environmental sustainability: 1.4. 1.4. Management of environmental risks and impacts /Ch. Decarbonisation: 1.2. Risks and opportunities arising from climate change |
| G4-EC3 | Ch. Our People: 4.4. Pensions  |



|   |   |
|---|---|
| G4-EC4  | Ch. Getting to know ENDESA: 6.2. Generation of wealth in 2016   |
| <b>MATERIAL ASPECT: MARKET PRESENCE</b>           |   |
| G4-DMA  | Ch. Our people: 4.3. Remuneration policy  |
| G4-EC5  | Ch. Our people: 4.3. Remuneration policy  |
| G4-EC6  | Ch. Our people: 4.2. Selection of personal  |
| <b>MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS</b> |   |
| G4-DMA  | Ch. Responsible relationship with the communities: 1. ENDESA's commitment to the communities                        |
| G4-EC7  | Ch. Responsible relationship with the communities: 1. ENDESA's commitment to the communities                        |
| G4-EC8  | Ch. Responsible relationship with the communities: 4. Quantification of ENDESA's social investment in the community |
| <b>MATERIAL ASPECT: PROCUREMENT PRACTICES</b>     |   |
| G4-DMA  | Ch. Supply chain: 1.2. Process integral of purchases of ENDESA  |
| G4-EC9  | Ch. Supply chain: 1.1.1. Commitment with the local suppliers  |
| <b>CATEGORY: ENVIRONMENT</b>                      |   |
| <b>MATERIAL ASPECT: MATERIALS</b>                 |   |
| G4-DMA  | Ch. Environmental sustainability: 2.1 Energy resources  |
| G4-EN1  | Ch. Environmental sustainability: 2.1.2. Fossil fuel consumption  |
| <b>MATERIAL ASPECT: ENERGY</b>                    |   |
| G4-DMA  | Ch. Environmental sustainability: 2.1. Energy resources   |
| G4-EN3  | Ch. Environmental sustainability: 2.1.2. Consumption of combustibles fósiles  |
| G4-EN4  | Ch. Environmental sustainability: 2.1.5. Energy efficiency in internal processes                                    |
| G4-EN5  | Ch. Environmental sustainability: 2.1.5. Energy efficiency in internal processes                                    |
| G4-EN6  | Ch. Environmental sustainability: 2.1.2. Fossil fuel consumption  |
| G4-EN7  | Ch. Environmental sustainability: 5.1. Value-added products and services (PSVA)                                     |
| <b>MATERIAL ASPECT: WATER</b>                     |   |
| G4-DMA  | Ch. Environmental sustainability: 2.4. Water resources  |
| G4-EN8  | Ch. Environmental sustainability: 2.4.1. Water consumption  |
| G4-EN9  | Ch. Environmental sustainability: 2.4.1. Water consumption  |
| <b>MATERIAL ASPECT: BIODIVERSITY</b>              |   |
| G4-DMA  | Ch. Environmental sustainability: 3. Conservation of biodiversity   |
| G4-EN11   | Ch. Environmental sustainability: 3.1. Biodiversity conservation plan   |
| G4-EN12   | Ch. Environmental sustainability: 3.1. Biodiversity conservation plan/ 3.2.1 Studies and research                   |
| G4-EN13   | Ch. Environmental sustainability: 3.1. Biodiversity conservation plan/ 3.3. Environmental restoration               |
| <b>MATERIAL ASPECT: EMISSIONS</b>                 |   |
| G4-DMA  | Ch. Environmental sustainability: 2.2. Air quality  |
| G4-EN15   | Ch. Decarbonisation: 3.2. Direct and indirect CO2 emissions/ Ch. Environmental sustainability: 2.2. Air quality     |
| G4-EN16   | Ch. Decarbonisation: 3.2. Direct and indirect CO2 emissions/ Ch. Environmental sustainability: 2.2. Air quality     |
| G4-EN18   | Ch. Decarbonisation: 3.2. Direct and indirect CO2 emissions/ Ch. Environmental sustainability: 2.2. Air quality     |
| G4-EN19   | Ch. Decarbonisation: 3.2. Direct and indirect CO2 emissions/ Ch. Environmental sustainability: 2.2. Air quality     |
| G4-EN20   | Ch. Decarbonisation: 4. Carbon capture and storage actions  |
| G4-EN21   | Ch. Environmental sustainability: 2.2. Air quality  |
| <b>MATERIAL ASPECT: EFFLUENT AND WASTE</b>        |   |
| G4-DMA  | Ch. Environmental sustainability: 2.4.2. Water discharge/2.5. Waste/1.6.1. Waste prevention and management          |
| G4-EN22   | Ch. Environmental sustainability: 2.4.2. Water discharge/2.5. Waste   |
| G4-EN23   | Ch. Environmental sustainability: 2.5. Waste  |
| G4-EN25   | Ch. Environmental sustainability: 2.5. Waste  |
| G4-EN26   | Ch. Environmental sustainability: 2.4.1. Water consumption/ Water masses affected by discharges                     |
| <b>MATERIAL ASPECT: PRODUCTS AND SERVICES</b>     |   |
| G4-DMA  | Ch. Environmental sustainability: 1.2. Environmental objectives   |

|  |  |
|--|--|
| G4-EN27  | Ch. Customer orientation: 5.1.1. Actions on corporate customers  |
| <b>MATERIAL ASPECT: COMPLIANCE</b>                               |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5. Ethical conduct and compliance  |
| G4-EN29  | Ch. Getting to know ENDESA: 5.7. Sanctions received  |
| <b>MATERIAL ASPECT: OVERALL</b>                                  |  |
| G4-DMA   | Ch. Sustainability environmental: 1.3. Significant investment effort   |
| G4-EN31  | Ch. Sustainability environmental: 1.3. Significant investment effort   |
| <b>MATERIAL ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT</b>        |  |
| G4-DMA   | Ch. Supply chain: 1.4.3. Environmental management  |
| G4-EN32  | Ch. Supply chain: 1.4.3. Environmental management  |
| <b>MATERIAL ASPECT: ENVIRONMENTAL GRIEVANCE MECHANISMS</b>       |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5.6 Ethics Channel   |
| G4-EN34  | Ch. Getting to know ENDESA: 5.6 Ethics Channel   |
| <b>CATEGORY: SOCIAL</b>  |  |
| <b>SUBCATEGORY: LABOUR PRACTICES AND DECENT WORK</b>             |  |
| <b>MATERIAL ASPECT: EMPLOYMENT</b>                               |  |
| G4-DMA   | Ch. Our People: 7. Responsible people management   |
| G4-LA1   | Ch. Our People: 4. Attracting and retaining talent   |
| G4-LA2   | Ch. Our People: 4.3. Remuneration policy   |
| G4-LA3   | Ch. Our People: 7.2. Conciliation of professional, personal and family life  |
| <b>MATERIAL ASPECT: LABOUR/MANAGEMENT RELATIONS</b>              |  |
| G4-DMA   | Ch. Our People: 5. Social dialogue   |
| G4-LA4   | Ch. Our People: 5. Social dialogue   |
| <b>MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY</b>           |  |
| G4-DMA   | Ch. Our people: 8. ENDESA: A safe and healthy environment  |
| G4-LA5   | Ch. Our people: 8.4. Occupational health and safety committees   |
| G4-LA6   | Ch. our people: 8.5. Drop in accident rate   |
| G4-LA7   | Ch. Our people: 8.1. Common occupational safety and health   |
| G4-LA8   | Ch. Our People: 5. Social dialogue   |
| <b>MATERIAL ASPECT: TRAINING AND EDUCATION</b>                   |  |
| G4-DMA   | Ch. Our People: 3.1. Key figures and relevant aspects  |
| G4-LA9   | Ch. Our People: 3.1. Key figures and relevant aspects  |
| G4-LA10  | Ch. Our People: 3.1. Key figures and relevant aspects/2.1. Leadership model/2.2. Talent development                    |
| G4-LA11  | Ch. Our People: 2.1. Leadership model  |
| <b>MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY</b>          |  |
| G4-DMA   | Ch. Our People: 7. Responsible people management   |
| G4-LA12  | Ch. Our People: 1. ENDESA's workforce/Ch. Getting to know ENDESA: 3.3. Leadership of the Board of Directors            |
| <b>MATERIAL ASPECT: EQUAL REMUNERATION FOR WOMEN AND MEN</b>     |  |
| G4-DMA   | Ch. Our People: 7. Responsible people management   |
| G4-LA13  | Ch. Our People: 4.3. Remuneration policy   |
| <b>MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOUR PRACTICES</b> |  |
| G4-DMA   | Ch. Supply chain: 1.4.2. Compliance with human rights  |
| G4-LA14  | Ch. Supply chain: 1.4.2. Compliance with human rights  |
| G4-LA15  | Ch. Supply chain: 1.4.2. Compliance with human rights  |
| <b>MATERIAL ASPECT: LABOUR PRACTICES GRIEVANCE MECHANISMS</b>    |  |
| G4-DMA   | Ch. Our People: 5. Social dialogue   |
| G4-LA16  | Ch. Our People: 5. Social dialogue   |
| <b>SUBCATEGORY: HUMAN RIGHTS</b>                                 |  |
| <b>MATERIAL ASPECT: INVESTMENT</b>                               |  |
| G4-DMA   | Ch. Getting to know ENDESA: 2.3. Commitment to the UN Agenda/ 2.3.2. Governing principles on business and human rights |
| G4-HR2   | Ch. Our People: 3.2. Type and content of training  |

|  |  |
|--|--|
| <b>MATERIAL ASPECT: NON-DISCRIMINATION</b>                               |  |
| G4-DMA   | Ch. Our People: 7.1. ENDESA 's commitment to diversity   |
| G4-HR3   | Ch. Our People: 7.1. ENDESA 's commitment to diversity   |
| <b>MATERIAL ASPECT: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING</b> |  |
| G4-DMA   | Ch. Our People: 5. Social dialogue   |
| G4-HR4   | Ch. Our People: 5. Social dialogue   |
| <b>MATERIAL ASPECT: CHILD LABOUR</b>                                     |  |
| G4-DMA   | Supply chain: 1.3. Sustainability requirements in contracts  |
| G4-HR5   | Supply chain: 1.3. Sustainability requirements in contracts  |
| <b>MATERIAL ASPECT: FORCED LABOUR</b>                                    |  |
| G4-DMA   | Supply chain: 1.3. Requirements of sustainability in the contracts; Ch. Getting to know ENDESA: 2.3. Commitment to the UN Agenda |
| G4-HR6   | Supply chain: 1.3. Sustainability requirements in contracts (Ch. Getting to know ENDESA: 2.3. Commitment to the UN Agenda        |
| <b>MATERIAL ASPECT: SECURITY PRACTICES</b>                               |  |
| G4-DMA   | Ch. Our people: 3.1. Key figures and relevant aspects  |
| G4-HR7   | Ch. Our people: 3.1. Key figures and relevant aspects  |
| <b>MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT</b>                 |  |
| G4-DMA   | Ch. Supply chain: 1.3. Sustainability requirements in contracts  |
| G4-HR10  | Ch. Supply chain: 1.3. Sustainability requirements in contracts  |
| G4-HR11  | Ch. Supply chain: 1.4.2. Compliance with human rights  |
| <b>MATERIAL ASPECT: HUMAN RIGHTS GRIEVANCE MECHANISMS</b>                |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |
| G4-HR12  | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |
| <b>SUBCATEGORY: SOCIETY</b>  |  |
| <b>MATERIAL ASPECT: LOCAL COMMUNITIES</b>                                |  |
| G4-DMA   | Ch. Responsible relationship with the communities: 1. ENDESA's commitment to the communities                                     |
| G4-SO1   | Ch. Responsible relationship with the communities: 1. ENDESA's commitment to the communities                                     |
| G4-SO2   | Ch. Responsible relationship with the communities: 1. ENDESA's commitment to the communities                                     |
| <b>MATERIAL ASPECT: ANTI-CORRUPTION</b>                                  |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5. Ethical conduct and Compliance  |
| G4-SO3   | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |
| G4-SO4   | Ch. Getting to know ENDESA: 5. Ethical conduct and Compliance  |
| G4-SO5   | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |
| <b>MATERIAL ASPECT: PUBLIC POLICY</b>                                    |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5.1. Ethics Code and Zero Tolerance to Corruption Plan   |
| G4-SO6   | Ch. Getting to know ENDESA: 5.1. Ethics Code and Zero Tolerance to Corruption Plan   |
| <b>MATERIAL ASPECT: ANTI-COMPETITIVE BEHAVIOUR</b>                       |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5. Ethical conduct and compliance  |
| G4-SO7   | Ch. Getting to know ENDESA: 5.7. Sanctions received  |
| <b>MATERIAL ASPECT: COMPLIANCE</b>                                       |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5. Ethical conduct and compliance  |
| G4-SO8   | Ch. Getting to know ENDESA: 5.7. Sanctions received  |
| <b>MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY</b>       |  |
| G4-DMA   | Ch. Supply chain: 1.3. Sustainability requirements in contracts /1.4.1. Integrity and fight against corruption                   |
| G4-SO9   | Ch. Supply chain: 1.3. Sustainability requirements in contracts  |
| G4-SO10  | Ch. Supply chain: 1.3. Sustainability requirements in contracts/1.4.1. Integrity and fight against corruption                    |
| <b>MATERIAL ASPECT: GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY</b>      |  |
| G4-DMA   | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |
| G4-SO11  | Ch. Getting to know ENDESA: 5.6. Ethics Channel  |

**SUBCATEGORY: PRODUCT RESPONSIBILITY****MATERIAL ASPECT: CUSTOMER HEALTH AND SAFETY**

|        |   |
|--------|---|
| G4-DMA | Ch. Customer orientation: 1.3. Safety in the facilities |
| G4-PR1 | Ch. Customer orientation: 1.3. Safety in the facilities |
| G4-PR2 | Ch. Getting to know ENDESA: 5.7. Sanctions received     |

**MATERIAL ASPECT: PRODUCT AND SERVICE LABELLING**

|        |   |
|--------|---|
| G4-DMA | Ch. Customer orientation: 2.2.1. ENDESA's Customer Ombudsman/6. Customer satisfaction |
| G4-PR5 | Ch. Customer orientation: 2.2.1. ENDESA's Customer Ombudsman/6. Customer satisfaction |

**MATERIAL ASPECT: MARKETING COMMUNICATIONS**

|        |  |
|--------|--|
| G4-DMA | Ch. Customer orientation: 2.3. Responsibility for informing customers about ENDESA's products and services |
| G4-PR7 | Ch. Getting to know ENDESA: 5.7. Sanctions received  |

**MATERIAL ASPECT: CUSTOMER PRIVACY**

|        |  |
|--------|--|
| G4-DMA | Ch. Customer orientation: 2.2. Resolution of complaints and new-contract applications / Ch. Innovation and Digitisation: 2.5 Cybersecurity |
| G4-PR8 | Ch. Customer orientation: 2.2. Resolution of complaints and new-contract applications  |

**MATERIAL ASPECT: COMPLIANCE**

|        |  |
|--------|--|
| G4-DMA | Ch. Getting to know ENDESA: 5. Ethical conduct and compliance/5.3. Criminal Risks Prevention Model |
| G4-PR9 | Ch. Getting to know ENDESA: 5.7. Sanctions Received  |

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Una red que nos permite compartir valores, ideas, experiencias profesionales y pasiones personales.

Para generar, con la contribución de cada uno, valor para todos.

En Enel, sostenibilidad quiere decir también esto.

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