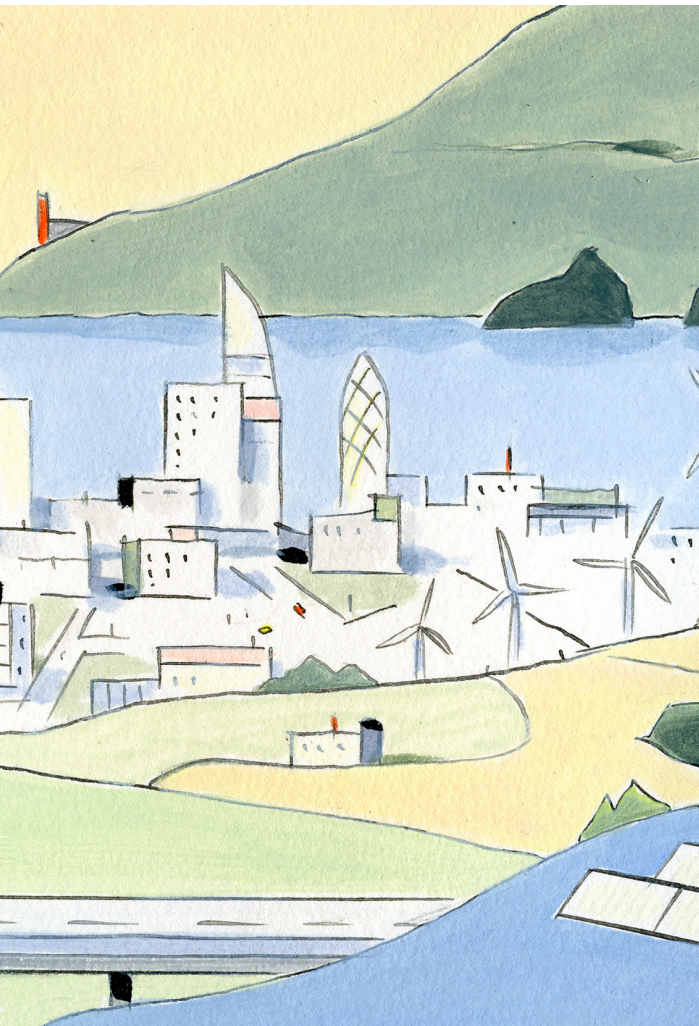




Le réseau  
de transport  
d'électricité

# MANAGEMENT REPORT

2021





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1.

**Message from  
the Chairman  
of the Executive  
Board**





“

*The energy transition remained a major topic of public debate in 2021*

”

**Although the Covid-19 pandemic continued to affect the organisation of work throughout the year 2021,** RTE adapted successfully. Performance of its public service missions continued without a break, while guaranteeing safe working conditions for employees.

The company was thus able to maintain a normal level of work, particularly its operations on the public electricity transmission network, and this achievement was reflected in the completion of many major projects:

- the IFA2 interconnector began full operation and now carries an additional 1,000 MW between France and England through an underwater link stretching for over 200 km between Normandy and Southampton;
- the Haute-Durance project to provide a secure electricity supply in the Hautes-Alpes area of south-east France was completed, with optimised landscaping that involved dismantling some RTE facilities and putting 100 km of overhead lines underground;
- the first circuit of the Avelin-Gavrelle 400 kV electricity line between Lille and Arras went live, significantly increasing transit capacities in the North region of France;
- work ended on the landfall point for connection of the Saint-Nazaire offshore wind farm, which will be the first such facility in France and is due to begin operations in 2022;
- the first “Ringo” storage system was inaugurated at Vingeanne, in the Côte-d’Or area of Burgundy, and is soon to be followed by two more sites, at Ventavon (Hautes-Alpes) and Bellac (Limousin). This experiment means RTE can test automatic management of local surplus power output from intermittent renewable energies without expanding the existing grid.

The energy transition remained a major topic of public debate in 2021, particularly at European level.

The associated European ambitions were reinforced with the European Commission's publication of the "Fit for 55" package. When it was released, RTE and seven other European TSOs issued a common declaration underlining the essential contribution made by network operators to achieving carbon neutrality by 2050.

Against this backdrop, RTE published its "Energy Pathways to 2050" report, which aims to present the possible trajectories for making France a carbon-neutral country by 2050. This landmark report provided a foundation for public debate on energy matters in France, highlighting the central role of electricity in the country's carbon-neutral future, and the technical and financial issues associated with each scenario considered.



***The challenge facing RTE is substantial: modernising and expanding the national electricity network to support France's move towards carbon neutrality.***



The challenge facing RTE is substantial: modernising and expanding the national electricity network to support France's move towards carbon neutrality.

To achieve this aim, the company drew up a strategic 10-year network plan (the SDDR) in November 2019, setting ambitious targets for infrastructure renewal, connection of renewable marine energies, and European interconnections. Further master plans will soon be developed to complement the SDDR's long-term projections. This will provide reference points and guidance, and aid preparation for decisions to maintain the quality of RTE's service, and deliver the energy that will be even more essential in the future than it is today.

With its "Impetus and Vision" corporate mission statement, RTE has a target organisation structure for 2025-2026 that has been devised and designed to rise to the industrial and technological challenges of the energy transition. This project is now entering a practical implementation phase, illustrated in the opening of the "CORS-N<sup>(1)</sup>" digital networks and systems control centre that will operate 24 hours a day. This centre will reinforce RTE's resilience in the face of cyber-attacks, and also increase the reliability and availability of its digital tools.

Finally, with the introduction of the TURPE 6 network access tariff following continuous, intense discussions with the French energy regulator CRE, RTE now has a new tariff framework. It strengthens the company's resources for intervention in all areas, and will support the company's growth and missions.

In 2022 RTE will have to consolidate its triple role as a pathfinder informing public decision-making, the operator for the supply-demand balance, flow management and infrastructure, and an optimiser in a time of tensions on the electricity markets.

**Xavier Piechaczyk,**  
Chairman of the Executive Board

(1) Centre opérationnel réseaux et systèmes numériques.





# 2.

## **Presentation of RTE**

## 2.1 HISTORY OF RTE

RTE, Réseau de transport d'électricité ("RTE" in the rest of this document), is the company that manages France's electricity transmission network.

RTE's essential missions are operating the public electricity transmission network and maintaining balance at all times in the electricity flows through the network.

Historically, electricity transmission in France was carried out by Électricité de France (EDF), which had a monopoly on the generation, transmission, distribution, export and import of electricity by virtue of the law of 1946 on nationalisation of electricity and gas companies<sup>(1)</sup>.

The law of 10 February 2000<sup>(2)</sup> transposing the European directive of 19 December 1996<sup>(3)</sup> laid down the principal rules for the internal energy market, which had recently been opened up to competition when the law was enacted. To avoid any risk of discrimination between different network users, this law required formation of a new network operator entity, independent of EDF, and in June 2000 an independent department named "Réseau de transport d'électricité" was set up at EDF, with separate management and accounts.

In a subsequent step, a separate legal entity was established, in application of the law of 9 August 2004<sup>(4)</sup> transposing the European directive of 2003. RTE, a *société anonyme* (French-domiciled publicly-traded limited company) governed by an Executive Board and a Supervisory Board, was officially formed on 1 September 2005 by means of a partial business transfer from EDF, and became a wholly-owned subsidiary of EDF<sup>(5)</sup>.

In 2012, the CRE certified RTE as an ITO (Independent Transmission Operator) following the approval of the European Commission, in compliance with directive 2009/72/EC which was transposed into French law in 2011. That law requires separation of interests or stronger guarantees of ITO independence from shareholders that own electricity generation and supply activities.

Since December 2016, the entire share capital of RTE has been held by Coentreprise de transport d'électricité (CTE), itself held by the following shareholders since 31 March 2017:

- EDF (50.1%);
- Caisse des dépôts et consignations (CDC) (29.9%);
- CNP Assurances (20%).

RTE's certification as an ITO was renewed in 2018.

RTE has set up joint ventures with its foreign counterparts to construct interconnections with neighbouring countries:

- Celtic Interconnector, with the Irish transmission network operator EirGrid;
- IFA2, with the British transmission network operator National Grid;
- Inelfe, with the Spanish transmission network operator REE.

RTE also has five subsidiaries that operate outside its public service missions: Airtelis, RTE International, Cirteus, Arteria and RTE Immo.

Framework agreements concerning the pricing methods for services sold by RTE to its subsidiaries are submitted to the regulator for approval.

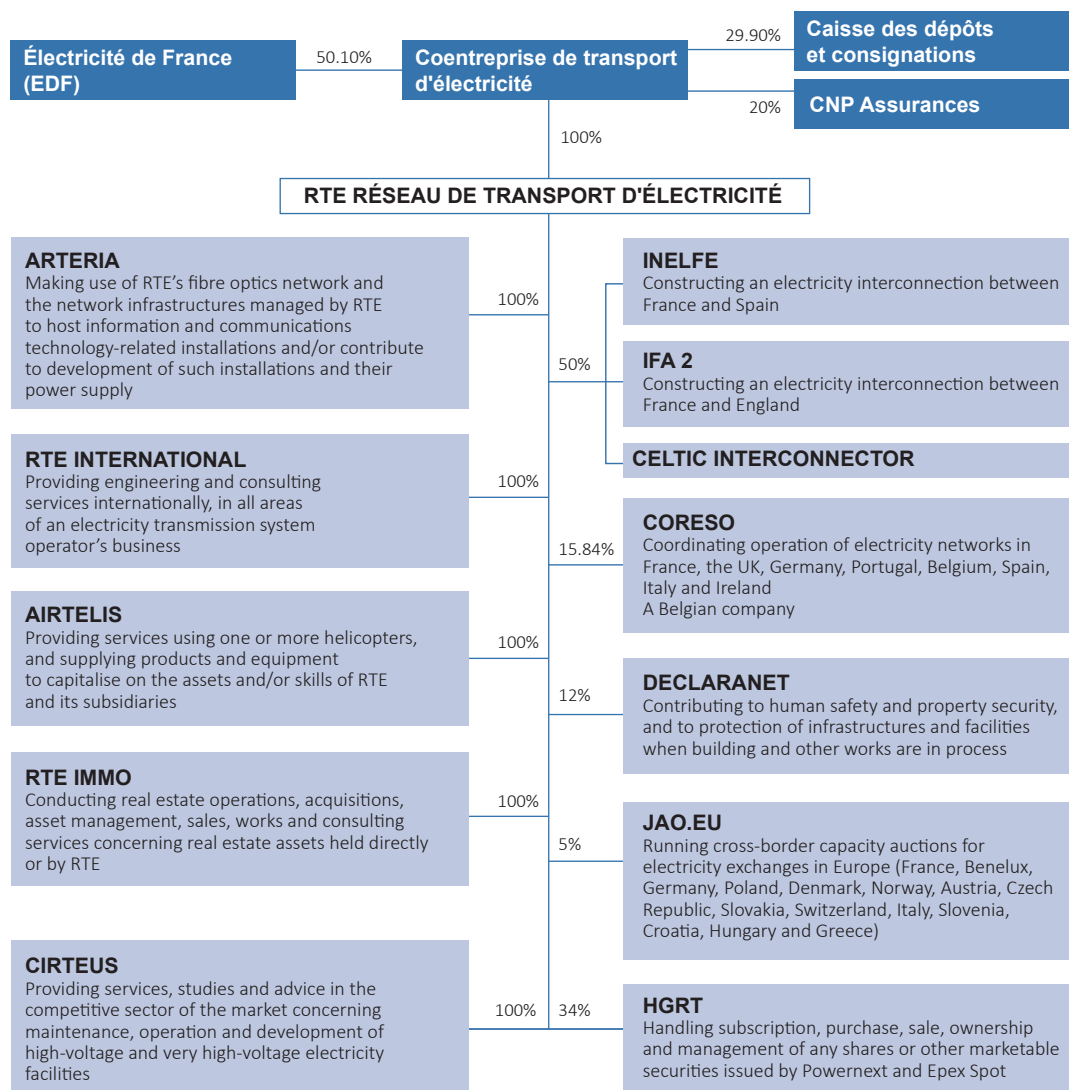
(1) French law no. 46-628 of 8 April 1946 on nationalisation of electricity and gas.

(2) French law no. 2000-108 of 10 February 2000 on the modernisation and development of the public electricity service.

(3) Directive 96/92/EC of 19 December 1996 concerning common rules for the internal market in electricity.

(4) French law no. 2004-803 of 9 August 2004 on the public electricity and gas service and electricity and gas companies.

(5) RTE was named "RTE EDF Transport" until 2012.



Finally, RTE holds minority investments in companies that enable it to fulfil the missions assigned to it by the law: Coreso, Declaranet, HGRT, and JAO.EU.

## 2.2 RTE'S RAISON D'ÊTRE AND CORPORATE SOCIAL RESPONSIBILITY

France's "PACTE" law of April 2019 for growth and change in businesses introduced a legal requirement for all companies in France to take into consideration the social and environmental aspects of their business activity.

This law also introduced the concept of the *raison d'être*, in which a company defines how it contributes to society beyond the pursuit of a good return on capital employed.

In November 2019, RTE therefore set up an iterative, collaborative project, involving more than 130 employees at the head office and in the regions, to translate RTE's identity and missions into a *raison d'être*.

The results of this project were presented to RTE's Supervisory Board in May 2021. The outcome was the following *raison d'être*, approved by the Supervisory Board on 14 December 2021: *"Drawing strength from its network and with dedication to its public service mission that makes an essential contribution to French life, RTE is at work every second of the day to ensure durable access to carbon-free electricity."*

*The women and men of RTE are conscientiously, passionately committed to achieving a successful energy transition at local, national and European level, through the pursuit of three industrial ambitions:*

- *optimising the French electricity system through a combination of efficiency, solidarity and environmental concern;*
- *operating the energy transition by innovating and transforming our industrial infrastructure for the benefit of customers and local actors;*
- *informing public authority decisions and the choices made by regions and citizens, using our expertise and vision."*

This declaration provides a long-term grounding for RTE's three roles – as network operator, electricity system optimiser, and pathfinder for collective choices relating to the energy transition. An extraordinary general shareholders' meeting was held on 3 January 2022 to incorporate the company's *raison d'être* into its bylaws.

To embody the *raison d'être*, in late 2021, RTE defined a new CSR policy which follows the materiality matrix presented in 7.1 Non-financial dimension of major risks.

To respond to societal, environmental, economic and regulatory changes and support the carbon neutrality ambitions pursued by France and Europe, RTE asserts its strategic vision and is making its CSR policy a fundamental lever of value creation. This approach expresses the company's *raison d'être* and promotes RTE as a responsible, committed actor in the energy transition.

### Our *Raison d'Être*

Drawing strength from its network ❶ and with dedication to its public service mission ❷, RTE makes an essential contribution to French life, RTE is at work every second of the day to ensure durable access to carbon-free electricity.

The women and men of RTE ❸ are conscientiously, passionately ❹ committed to achieving a successful energy transition ❺ at local, national and European level ❻, through the pursuit of three industrial ambitions: informing, operating and optimising.

### Our Corporate Social Responsibility Policy to embody our *Raison d'Être*

#### Challenges as **operator** of the energy transition

- Network performance, crisis prevention and management in France and Europe ❶
- Increasing flexibility for operation of the electricity system ❶
- Adaptation and support for the energy transition ❷
- Adjusting to the consequences of climate disruption ❷
- Responsible purchasing and sustainable local action ❸

#### Challenges as **pathfinder** for public decision-making

- Developing a forward-looking vision for French and European public energy policies ❷
- Transparency, dialogue and co-construction with stakeholders ❸

#### Challenges as **optimiser** of the electricity system

- Fighting climate change and protecting biodiversity and landscapes ❷
- Preservation of resources and the circular economy ❸

#### Fundamental **challenges** for attaining the strategic ambitions

- Governance and business ethics ❹
- Diversity, equal opportunities and inclusion ❹
- Health, safety and wellbeing of stakeholders ❹
- Skill development and talent management ❹

## 2.3 RTE'S BUSINESS MODEL AND VALUE CREATION

### ENERGY SECTOR TRENDS



Electricity consumption growth in an increasingly decarbonised world

### OUR RESSOURCES

#### HUMAN RESOURCES

**9,438** employees including **466** on work-study contracts

#### FINANCIAL RESOURCES

**64%** Debt / Regulated Asset Base

**14%** FFO / Net debt<sup>(1)</sup>

**2,095 M€** of EBITDA

#### INDUSTRIAL RESOURCES

**1,578 Bn€** of network investments

**105,970 km** of overhead and underground links

**2,900** RTE substations in operation

**46 M€** of investments in interconnections (IFA, Savoy-Piedmont, Celtic Interconnector, Bay of Biscay 1 & 2)

**51** cross-border lines

#### INTELLECTUAL RESOURCES

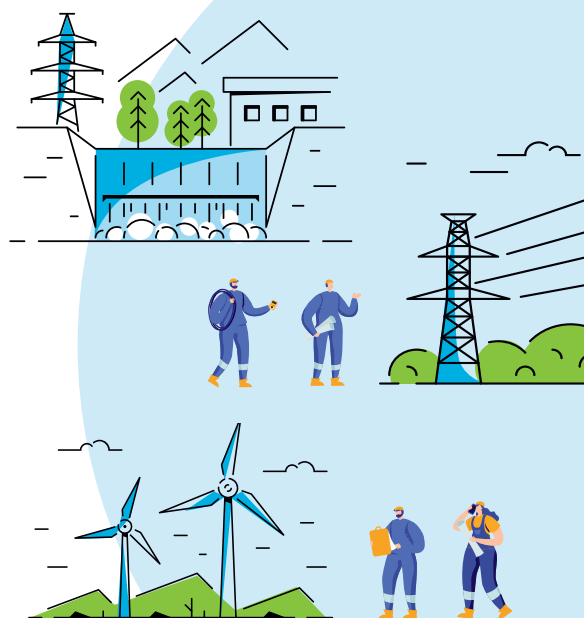
**A hundred** employees working on R&D activities

Nearly **40 M€** per year allocated to R&D

### OUR BUSINESS MODEL

#### OUR RAISON D'ÊTRE

Drawing strength from its network and dedication to its public service mission that makes an essential contribution to French life, RTE is at work every second of the day to ensure durable access to carbon-free electricity.



### OUR CONTRIBUTION TO SUSTAINABLE DEVELOPMENT OBJECTIVES

**7** AFFORDABLE AND CLEAN ENERGY



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



**17** PARTNERSHIPS FOR THE GOALS



Principal sustainable development objectives – see 7.1 Non-financial dimension of major risks

#### OUR MISSIONS

- To **inform** public policies
- To **optimise** operation of the electricity system
- To be the industrial **operator** of a key infrastructure



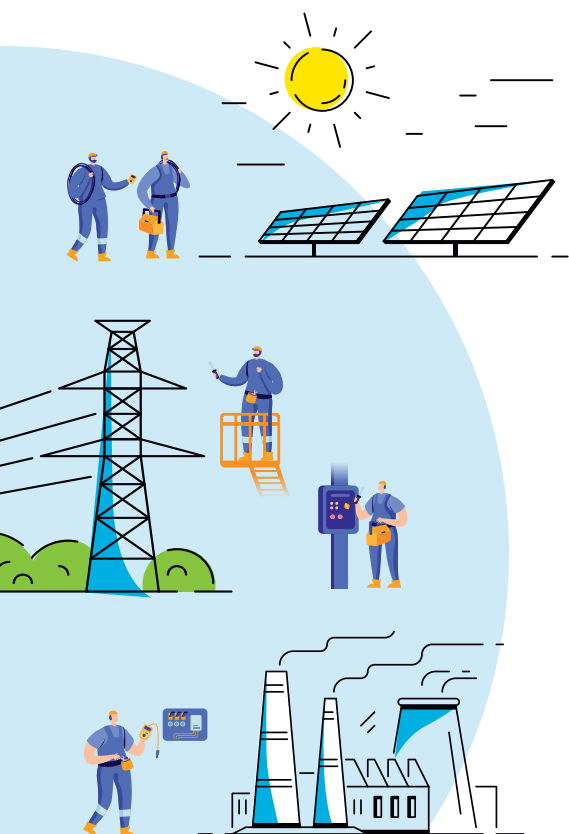


New demands  
and societal needs



Evolving  
energy mix

## OUR VALUE CREATION



### THE CHALLENGES FOR RTE

- **Supporting** the move to carbon neutrality by 2050
- **Responding** to environmental and societal issues
- **Renewing** and adapting the network
- **Exploiting** electricity flows, making increasing use of digital technologies

### FOR THE ENVIRONMENT AND LOCAL/REGIONAL AREAS

**53,378 MW** of renewable energies connected to the high-voltage and very high-voltage networks in France / installed power on the French national grid

**91.2%** of output by installations connected to RTE's network is carbon-free

**79.7%** of waste recycled

**1,439 hectares** of land made biodiversity-friendly

### FOR L'EUROPE

**44 Twh** imported

**87 Twh** exported

### FOR THE ECONOMY

**74,695** <sup>(2)</sup> jobs supported

**6.6 Bn€** <sup>(2)</sup> of GDP in France

**2 Bn€** of purchases

### FOR OUR CUSTOMERS

**4 min 5 seconds**

of equivalent outage time

**85%** customer satisfaction score

### FOR OUR EMPLOYEES

**5<sup>th</sup>** Best Employer in France  
(in the Glassdoor 2022 rankings)

**1:17** ratio between the lowest and highest salary

### FOR OUR SHAREHOLDERS

**5.8%** of ROCE

**5%** dividend/equity ratio

(1) FFO including S&P adjustment

(2) Source: study of the 2021 socio-economic footprint based on 2020 data.

## 2.4 REGULATION MODEL

France's Energy Code stipulates that all costs borne by RTE, provided they correspond to the costs of an efficient network operator, are to be covered by the network access tariffs.

Accordingly, for every tariff period (four years) the CRE<sup>(1)</sup> examines RTE's forecast charges and sets an appropriate TURPE<sup>(2)</sup> network access tariff to cover them. It also defines the regulation framework defining how risks and contingencies are to be shared between the companies and users of the public transmission network with respect to unforeseen events that cause RTE's income and expenses to

differ substantially from the initial forecasts. For cost and income items that are difficult to forecast and largely beyond RTE's control, the CRCP regulation account neutralises such effects for RTE by adjusting the tariff.

The regulation framework also contains incentives for RTE to control its expenses and improve the quality of network user service. All these factors contribute to determination of RTE's authorised revenues. In practice, the TURPE 6 tariff is adjusted each year for inflation, plus a cost factor of 0.49% and a clearance coefficient to balance items in the income and expenses adjustment account (CRCP)<sup>(3)</sup>.



RTE's authorised revenue is used to calculate the network access tariffs payable by all network users. For consumers and distributors, the tariff comprises a fixed component for the subscribed power and a variable component proportional to the energy withdrawn. For producers, the tariff is variable and proportional to the energy injected.

Normative capital expenses include returns and depreciation on the capital tied up in assets. These two components are calculated based on:

- the value of, and changes in, the assets operated by RTE less subsidies and contributions received from third parties, resulting in a return of 4.6% per year (RTE's regulated WACC) for the period 2021-24;
- fixed assets under construction, which receive a risk-free return of 2.7% per year for the period 2021-24.

The trajectory of capital expenditure on IT and real estate investments is fixed and non-adjustable for 4 years. The equivalent trajectory for network infrastructures is based on actual expenses incurred (any variance from the forecast trajectory is covered by the CRCP).

RTE's OPEX (operating expenses) consist of:

- purchases made for operation of the electricity system (electricity losses, congestion, system services, etc) which are by nature difficult for RTE to predict and control; changes in these items are largely neutralised by the CRCP;
- RTE's gross expenses (essentially personnel expenses and external purchases, largely for management of assets) for which the regulator sets a non-adjustable trajectory for a 4-year period.

As a performance incentive for RTE, the regulator has set up several ad hoc bonus and penalty mechanisms for RTE. For the period 2021-24, these incentives mainly concern continuity of supply, management and development of assets, the volume of network losses and associated purchase costs, the development of interconnections, and an efficient electricity market.

As the owner and manager of electricity interconnectors between France and its neighbouring countries, RTE receives income generated by interconnection capacity allocation and the capacity mechanisms set up in France and the countries with which it shares borders. Any surplus or shortfall compared to the forecast trajectory is entirely passed on the users via the CRCP.

The CRCP is the account used to repay to users the excess amounts received by RTE/to pay RTE for excess charges, under the rules for sharing the risks and contingencies defined in the regulatory framework. It is cleared annually for variances of up to +/-2%. In the event of a larger variance, the balance, discounted to present value using the risk-free rate of 1.7% for the period 2021-24, is cleared in subsequent years.

(1) Commission de régulation de l'énergie – CRE website.

(2) Tarif d'utilisation des réseaux publics d'électricité.

(3) Compte de régulation des charges et produits.

3.

**Corporate  
governance**

## FULLY-INDEPENDENT CORPORATE GOVERNANCE

RTE is a *société anonyme*, a French-domiciled publicly-traded limited company, governed by an Executive Board and a Supervisory Board. It has certain specific features due to its status as operator of the French public electricity transmission network (TSO – transmission system operator). RTE's bylaws and governance methods safeguard its autonomy, independence of management and neutrality.

### GOVERNANCE BODIES

#### Supervisory board

**Role:** The Supervisory Board examines and issues an opinion on matters relating to the company's major strategic, economic, financial and technological orientations, subject to the Executive Board's exclusive competence for decisions concerning network management and work necessary to implement the ten-year network development plan. It also monitors RTE's management by the Executive Board, in compliance with the provisions of the French Energy Code (*Code de l'énergie*).

#### Economic oversight and Audit Committee

**Role:** in preparation for Supervisory Board meetings, this committee studies all financial aspects of the company, notably the budget and the economic and financial prospects, the annual financial statements and half-year results, the risk monitoring and management policy, particularly risk mapping, and the audit programme, audit outcomes, action plan follow-up and internal control.

#### Remuneration Committee

**Role:** this committee issues an opinion on the setting of all kinds of remuneration that may be paid to key corporate officers for their duties.

#### Composition of the Supervisory Board

The Supervisory Board consists of twelve members<sup>(1)</sup> distributed as follows in application of article 13 of RTE's bylaws:

- one third of employee representatives;
- members representing the French State and a member nominated by the State<sup>1</sup>, appointed by virtue of articles 4 and 6 of ordinance no. 2014-948 of 20 August 2014 on governance and capital transactions by companies with public investment, up to a maximum of one third of board members;
- representatives the shareholder, CTE: their number depends on the number of members appointed as set out in the previous point.

Supervisory Board members are appointed for a five-year term of office.

(1) The French State, as a legal entity, can be appointed by the shareholders at an ordinary general meeting. In this case it is represented by an individual designated by official decision. The State can also nominate one or more persons for appointment to the Supervisory Board by the shareholders at an ordinary general meeting.

## COMPLIANCE OFFICER

In accordance with European regulations and the French Energy Code, RTE has a designated compliance officer. Subject to competences attributed specifically to the CRE, the compliance officer is in charge of ensuring that RTE's practices comply with its obligations as regards independence of other companies included in the Vertically Integrated Enterprise.

On 1 September 2021 Philippe Dumarquez succeeded Olivier Herz as RTE's General

Compliance Controller. He is entitled to attend General Shareholders' Meetings, Supervisory Board meetings, specialist committee meetings and all meetings relevant to his duties.

He has all powers to investigate documents on site for execution of his mission. Apart from the information he must report to the CRE, he has a professional duty of discretion regarding commercially-sensitive information collected in the course of his duties.

After seeking the opinion of the French energy regulator CRE, the Supervisory Board appoints the members of the...

### Executive Board

**Role:** the Executive Board has the broadest powers to act in the company's name in all circumstances, subject to the rights of the shareholders at a General Meeting and the Supervisory Board. It is the only body with competence to implement operations directly contributing to operation, maintenance and development of the public electricity transmission network within the scope of the missions assigned to the company.

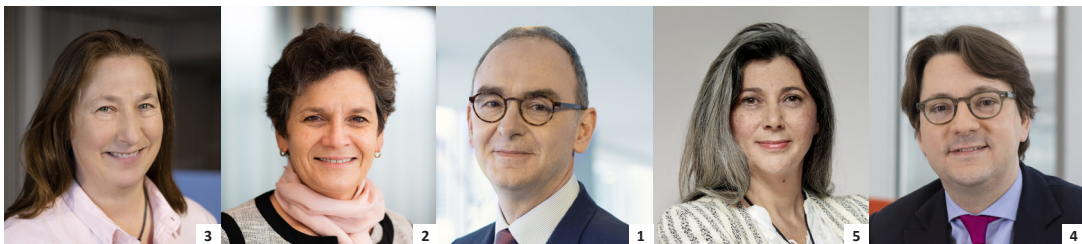
### Executive Committee

**Role:** the Executive Committee examines all corporate matters that require oversight or a decision in the orientation, commitment, implementation and monitoring stages.

## Composition of the Executive Board

The Chairman of the Executive Board, Xavier Piechaczyk, was appointed by the Supervisory Board for a 5-year term of office beginning on 1 September 2020. Following nominations by the Chairman, the other members of the Executive Board were appointed by the Supervisory Board in November 2020, for a term of office that will end at the same time as the Chairman's term, *i.e.* on 31 August 2025.

The Executive Board thus consists of:



**1 Xavier Piechaczyk**, Chairman of the Executive Board

**2 Clotilde Levillain**, Managing Director in charge of Customers and System Design & Operation

**3 Thérèse Boussard**, Managing Director in charge of Infrastructure Management

**4 Laurent Martel**, Managing Director in charge of Finance and Purchasing

**5 Sophie Moreau-Follenfant**, Managing Director in charge of Transformation and the Employee Environment





**4.**

**Significant  
events**

## 4.1 SIGNIFICANT EVENTS OF 2021

### January

#### — European system event and activation of interruptibility

On 8 January, due to an operating incident in Eastern Europe that set off a chain of consequences leading to a drop in frequency on the European electricity network, RTE immediately interrupted consumption at 16 industrial sites which are large-scale electricity consumers and are voluntarily contractual participants in the interruptibility mechanism. Terna, Italy's transmission network operator, also activated its interruptibility mechanism. The resulting reduction in electricity consumption, by around 1,300 MW in France and 400 MW in Italy, avoided power cuts in both those countries and the rest of Europe.

#### — CRE decision setting the “TURPE 6” network access tariff

The CRE's decision of 21 January 2021, published in France's *Journal Officiel* of 23 April 2021, set the sixth electricity transmission network access tariff, “TURPE 6 HTB” for the high voltage network. The new tariff took effect on 1 August 2021, with an increase of 1.09%. It applies for a four-year period that will end on 31 July 2024. The tariff is updated on 1 August each year based on inflation and adjustments within limits defined in the decision.

#### — IFA2: Start of full operation by the France-England interconnector

The electricity interconnector IFA2 handled its first commercial exchanges on 22 January 2021. Since that date, an additional 1,000 MW have circulated between France and England, or one and half times the consumption of the Calvados *département* of France, or one million inhabitants. This marked the culmination of a French-British project that took at least three years of studies, five years of consultation and almost three years of work on land, at sea and in the associated substations. Normandy is now linked to Southampton by a direct-current underwater technology line that is over 200 km long, the longest facility of this kind operated by RTE.

This interconnector contributes to achievement of the objective set out in RTE's ten-year network development plan, the SDDR<sup>(1)</sup>: doubling interconnection capacities (from around 15 GW to around 30 GW) by 2035.

#### — Publication of the joint report by RTE and the IEA (International Energy Agency)

On 27 January, RTE and the IEA published a report on the conditions for an electricity system with a high proportion of renewable energies in France by 2050. The underlying study was undertaken at the request of the Minister for the Ecological and Inclusive Transition, and lists the conditions and prerequisites for the technical feasibility of this kind of energy mix (detailed conclusions in 5.1).

This report is one step of the Energy Pathways to 2050 report, which was published in October 2021.

### March

#### — Publication of the *Bilan prévisionnel* report for 2021

In March 2021 RTE published its *Bilan prévisionnel* report on projected changes in the electricity system for the period 2021-2030.

For security of power supply, the company identified 2021 to 2024 as a period requiring particular vigilance since margins are low due to diminished nuclear fleet availability, delays on the Flamanville EPR, and development trajectories for renewable energies that are below the forecasts in the national multi-year energy plan (PPE<sup>(2)</sup>).

From 2024 to 2026, the electricity system should have acceptable, although not comfortable, operating margins. Commissioning of the Flamanville EPR, offshore wind farms and onshore renewable energy plants, and an increase in demand-response action and interconnections will all contribute to this improvement.

The situation will continue to improve from 2026: the scenarios examined result in higher margins and more secure supplies, reinforcing electricity system resilience against climate or industrial events.

(1) *Schéma décennal du développement du réseau*. In 2019 RTE published the SDDR based on the orientations of the national multi-year energy plan (PPE). It lays out an electricity transmission network development programme that is compatible with a successful energy transition.

(2) *Programmation pluriannuelle de l'énergie*.

Methodologically speaking, the report reflects the results of all RTE's sector-specific prospective studies concerning electrification of uses (in transport, building, and industry). The report forecasts a moderate increase in electricity consumption by 2030 (+5% from 2019). Meanwhile, thanks to increasingly energy-efficient equipment and good management of the flexibility offered by new uses of electricity, non-modulable peak consumption in winter could be lower.

Finally, by 2030, France will be able to cut its CO<sub>2</sub> emissions by around 30-40 MtCO<sub>2</sub>eq/year due to transfers of uses and (even partial) achievement of the PPE objectives. These emissions will not be re-located to other countries. The carbon footprint of imports (which is already low, at about 1 MtCO<sub>2</sub>eq) will continue to shrink. Better still, France will be a net exporter, thus helping to reduce emissions at European level.

#### — Opening of CORS-N, the Digital Networks and Systems Control Centre

The CORS-N centre was opened in March 2021 at Saint-Quentin-en-Yvelines in the Paris region.

It is an information and telecoms system control room created in response to technological change and regulatory requirements (France's Military Programme Law), and the concrete outcome of several years of reflection about RTE's telecoms networks and industrial information system.

The aims of the new centre are to increase the reliability and availability of the company's digital tools, and make RTE more robust to cyber-attacks.

The CORS-N has been operating continuously (24 hours a day, 7 days a week) since September 2021.

#### April

#### — Connection of the Saint-Nazaire offshore wind farm: completion of landfall construction

After 18 months of work on Courance beach, laying and linkup of the undersea and underground 225 kV cables was completed in April for the dual link to

the Saint-Nazaire offshore wind farm. The purpose of this work was to join up the 33 km of undersea cables to the 27 km of onshore underground cables. The remainder of the work, concerning the offshore substation and the onshore connection substation at Prinquiau, will continue until September 2022 when these links will carry the electricity produced by the wind farm's 80 wind turbines (total capacity 480 MW).

#### May

#### — Agreement by the project owners for continuation of the Dunkirk offshore wind farm project

At a joint conference held in Dunkirk on 11 May by the Minister for the Ecological Transition, the mayor of Dunkirk and RTE, the owners of the wind farm project planned off the coast at Dunkirk reasserted their decision to continue the project, with a forecast commissioning date of 2027 (for a capacity of 600 MW).

This project establishes RTE as developer of the marine zones: for the first time, the company will design, construct and fund the entire connection infrastructure for a wind farm, including the offshore substation, for which RTE will also handle operations and maintenance. This was not the case for tenders 1 and 2 at Saint-Nazaire, Fécamp and Courseulles-sur-Mer, where construction of the offshore substation was the responsibility of the power producers.

#### — Connection of the Saint-Brieuc offshore wind farm – Continuation of work in a difficult context

Work on the connection of the Saint-Brieuc offshore wind farm was a focus for protests against offshore wind power throughout 2021. Despite a consultation process that has lasted more than eight years, when work by the power producer started in May there were clashes between RTE and local residents' and fishers' associations who oppose the project. These protests are impeding progress on the project, but work is still advancing: activity for laying a 16 km underground 225 kV link across three towns (Erquy, Saint-Alban and Hénansal) in the Côtes-d'Armor area of Brittany is due to last until summer 2022.

In March 2021 an amicable agreement was finally signed with the town of Erquy, the cable landfall point, for occupation of the land necessary to establish and operate the electricity installations. No operations take place in the summer season, in order to protect biodiversity and avoid disrupting the tourist season.

The ambition driving the Saint-Brieuc project is unaffected, and the aim is still to connect the producer and its 500 MW of wind power by mid-2023.

## July

### — Inauguration of the first RINGO experimental site for automated electricity storage management

On 2 July, RTE inaugurated its first experimental site for the automated management of large-scale electricity storage (“Ringo” batteries) in Vingeanne-Jalancourt, Fontenelle (Côte-d’Or in Burgundy).

The Ringo system will test the automatic management of surplus renewable electricity: at times of peak demand, the power that cannot be carried by the network is automatically stored in batteries, to be released once the peak is past. The batteries are part of the range of flexible solutions that will be necessary in future to guarantee efficient use of electricity from renewable energies and make better use of them without replacing existing power lines.

Three sites will ultimately be equipped with Ringo batteries: Vingeanne-Jalancourt, Ventavon (Hautes-Alpes) and Bellac (Limousin), all located close to intermittent electricity generation sources (solar or wind power plants).

Through these three sites, a total 100 MWh of storage capacity will ultimately be installed in the network, the equivalent of 40,000 households’ consumption for one hour.

This experiment is due to last three years.

### — Presentation of the European Union “Fit for 55, Delivering the Green Deal” package

On 14 July 2021, the European Commission published its “Fit for 55, Delivering the Green Deal” package of 13 legislative proposals. The key points of the “Fit for 55” package are:

- a strong push for electrification, particularly in construction and transport;
- faster rollout of renewable energies;
- reinforcement of energy efficiency goals;
- stricter requirements in the EU carbon trading system.

When the “Fit for 55” package was released, RTE and seven other TSOs published a joint declaration underlining the central role of TSOs in achieving carbon neutrality by 2050. In response to the European Commission’s public consultations on its proposals in autumn 2021, RTE pointed out that the package raised direct questions (the contributions of renewable energies to system and balancing services, energy efficiency) and indirect questions (carbon prices, the electricity systems’ eligibility for financial support from the EU under the emissions quota trading mechanism). The resulting laws and regulations will be analysed and monitored by RTE, particularly as part of the coordination between European TSOs belonging to the European association ENTSO-E.

### — Incident of 24 July 2021: uncoupling of the Iberian peninsula

On 24 July 2021 at around 4.30 p.m., forest fires in the Aude region in the south of France successively put out two 400 kV links east of the France/Spain border, causing electricity flows to be transferred to other links between France and Spain which were then also disconnected. This led to power cuts around the French cities of Narbonne, Perpignan and Biarritz, with separation of the Iberian peninsula’s electricity network from the European electricity network and a significant drop in frequency in Spain and Portugal.

This drop in frequency led to load shedding that caused the loss of some 650 MW in Portugal and over 3,000 MW in Spain; at the time of the incident, France was exporting 2,500 MW to Spain. The interruptibility mechanism was also activated in Portugal (disconnecting 430 MW). In France, 100,000 homes had their power supply cut off.

Thanks to close coordination between RTE and the Spanish network operator Red Eléctrica de España, the Iberian peninsula was reconnected to the Continental Europe network after just 30 minutes, and full supply to consumers was restored immediately afterwards.

## September

### — Fire at the HVDC Cross-Channel interconnector converter station in England

On 14 September a fire destroyed part of the converter station at the Sellindge substation in England. Although the fire did not damage the civil engineering and the high-voltage section of the substation, the power electronics that convert direct current to alternating current for bipole 1 were damaged, and consequently the capacity of the HVDC Cross-Channel interconnector has been reduced from 2,000 MW to 1,000 MW while the National Grid replaces the destroyed equipment.

National Grid expects operations to return to normal by the end of 2022.

### — Start of the public debate about the Oléron offshore wind farm project

The public debate prior to the start of the Oléron wind farm project officially began on 30 September, when the project owners' file was made available on the CPDP<sup>(1)</sup> website and the schedule for the debate was announced. The State-supervised Oléron project concerns connection of a 500-1,000 MW wind farm. A contract for a second wind farm with maximum capacity of 1,000 MW is being considered for 2024. In the national energy transition policy, the French State plans to increase wind power plants off all its coastlines by 1,000 MW a year from 2024. A second wind farm off France's south-west coast would help to achieve this goal, and could also share the first farm's connection to the electricity network, justifying the relevance of RTE's role as project owner of the marine network of the future.

## October

### — Publication of the “Energy Pathways to 2050” report

As part of its legal missions (publication of the Generation Adequacy Report) and at the request of the French government, in 2019 RTE launched a wide-ranging study on the evolution of the power system called “Energy Pathways to 2050”.

This work has taken place at a crucial point in the public debate about energy and the climate, just as the public authorities are deciding on the necessary strategies to exit fossil fuels and reach carbon neutrality by 2050, to meet the targets of the Paris Agreement.

There are several possible ways to achieve this. RTE's “Energy Pathways to 2050” report answers the need for documentation of the available options by describing the technical aspects of the system's evolution, with estimates for the related costs, details of the environmental impact in the broadest sense, and presentation of the lifestyle implications.

On 25 October, RTE published the key results of the study in an executive summary and an initial detailed report. The key findings regarding achievement of carbon neutrality concern the following:

- 1) energy consumption, which will decrease due to energy efficiency measures, and electricity consumption specifically, which will increase in all the trajectories studied due to transfers of uses;
- 2) transformation of the energy mix, which will necessarily involve significant expansion of renewable energies to achieve carbon neutrality, independently of the options chosen for nuclear energy;
- 3) comparative economic analyses of the scenarios;
- 4) the technological options that will be prerequisites for success in these trajectories;
- 5) the related environmental effects.

This report was eagerly awaited by stakeholders and the government. It is one of the principal deliverables in the elaboration of the future French strategy on energy and the climate (SFEC<sup>(2)</sup>) – particularly as regards revision of the national low-carbon strategy (SNBC<sup>(3)</sup>) and the national multi-year energy plan (PPE<sup>(4)</sup>).

(1) Commission particulière du débat public.

(2) Stratégie française sur l'énergie et le climat.

(3) Stratégie nationale bas carbone.

(4) Programmation pluriannuelle de l'énergie.

## November

### — “Getting through the winter”: publication of forecasts of the supply-demand balance in the electricity system

On 22 November RTE published forecasts of the supply-demand balance in the electricity system. This report was released in a context where the electricity sector was still affected by the repercussions of the Covid-19 pandemic. The updated studies confirm the diagnosis presented in the Generation Adequacy report, which included a preliminary analysis for winter 2021-2022: like the whole of the period 2020-2023, it requires particular vigilance.

Risks of strain on the system were identified for January and February 2022, as the likelihood of cold weather is highest in the middle of winter, and also because that period would be the most seriously affected by any extended outages of the nuclear fleet.

As well as publishing this information, RTE inaugurated a new dynamic information system to release updates of the diagnosis based on new information about nuclear reactor unavailability, the latest weather forecasts, and developments in the energy situation in Europe.

For example, on 30 December 2021, RTE published an updated diagnosis predicting closer vigilance for the mid-winter in 2022, in view of the unavailability of N4 nuclear power plants announced by the operator in mid-December, despite weather conditions that were expected to be favourable.

RTE was due to release further analyses covering the rest of the winter period in late January 2022.

### — Commissioning of the 400 kV Avelin-Gavrelle line

On Monday 22 November, the first circuit of the 400 kV electricity line between Avelin and Gavrelle in the north of France was successfully activated. After eight years of consultation and two years of work, this was an important step towards finalisation of the plan to reinforce the line between the suburbs of Lille and Arras, where the transit capacity was often saturated by major transmission flows. The second circuit of the line was activated on 16 December.

The renovated link covers nearly 30 km and has 87 pylons, mostly the new *Équilibre* pylons. This pylon design is a technological and architectural innovation invented specially for the Avelin-Gravelle line. It symbolises RTE's commitment to enhanced integration of facilities into the landscape, and minimum disruption of local residents' living environment.

The day after it began operation, transit along the new line was 12% higher than before (from 1,500 MW to 1,700 MW), even with only one of its two circuits switched on. This project will end in the first quarter of 2022 when the old line is removed.

### — Haute-Durance project: completion of the new facilities

On 26 November, construction of the new facilities in the Haute-Durance network reinforcement programme was completed, and the Pralong substation began operation. This programme is a flagship project in the Hautes-Alpes region in south-east France, and has made the local electricity supply secure while also improving the environmental integration of the installations. It required unusually high resources due to the mountainous terrain covered. For example, for the 225 kV/63 kV transformer weighing 160 tonnes, specific design adaptations were necessary from the earliest stages, working with the constructor, so that it could be transported by train through the tunnels of the French railway network.

In total, this project, which will end in late 2022 with the dismantling of 690 pylons, involves installation of four transformers, reconstruction of 100 km of new aerial lines away from residential areas, and installation of 100 km of underground links.

## December

### — Work on power line burial at Villeneuve-la-Garenne in preparation for the Olympic Games: tunnel boring

Work continued in 2021 on the Villeneuve-la-Garenne project which began in 2019. RTE has promised the towns that are contributing to this local-initiative undergrounding project (MESIL<sup>(1)</sup>) to remove the four overhead 225 kV lines by 2024 in preparation for construction of the Olympic village, which currently lies beneath them.

(1) Mise en souterrain des ouvrages sur initiative locale.



Tunnel boring began on 25 May, and the goal is to complete 2.5 km of passages 50 metres below ground level during the first quarter of 2022.

During the night of 31 August, after 200 metres had been bored, the tunnel had to be evacuated when a very large amount of water leaked into it. The leak was permanently fixed within a week, and the tunnel borer resumed its advance one month after the incident.

By the end of December, the tunnel was more than 700 metres long and the tunnel borer was working at a normal rate, adding 15 metres a day.

#### — Soaring prices on the electricity markets

The soaring prices on the electricity markets, reflected in the average spot price of €109/MWh in 2021 (compared to €32/MWh in 2020) with peaks of over €200/MWh on certain days in the final quarter of 2021, caused financial difficulties for some suppliers and market actors. After one supplier was placed in court-ordered liquidation on 2 December 2021, RTE intensified its procedure for monitoring and measuring the risk of default by counterparties.

In 2022 RTE is continuing its weekly monitoring procedure for risks of default on receivables. The company began discussions with the CRE to bring about changes in the current financial security rules for the balance-responsible entity system. The outcome of these discussions was CRE decision 2022-25 of 20 January 2022, which shortened invoice payment time and increased the required financial guarantees for defaulting balance-responsible entities.

## 4.2 EFFECTS OF THE COVID-19 PANDEMIC IN 2021

RTE has a **crisis management procedure** to cope with events that have, or could have, significant repercussions for operation of the electricity system and for its users. A key objective of this procedure (called ORTEC<sup>(1)</sup>) is rapid communication of information to RTE's management, the public authorities, and other industrial actors (energy producers, distributors and industrial customers).

Also, as an officially designated operator of vital importance (OIV<sup>(2)</sup>), RTE must be prepared for any situation in which a large number of its personnel are unavailable. Internal risk prevention at RTE mainly involves:

- assessment of risks that could affect employee health and safety;
- development of a business continuity plan;
- occupational health departments, which are in charge of risk prevention, and support for managers and employees.

RTE therefore also has a **business continuity plan for public health crises**, drawn up in 2015. This document sets out the principles for internal management of such crises (for instance a pandemic of flu, or an Ebola or H1N1-type virus) and the measures to be taken depending on the level of employee absenteeism.

(1) Organisation de RTE en situation de crise.

(2) Opérateur d'importance vitale.



# 5.

## Strategic orientations

In 2021 RTE drew up and communicated to personnel its **strategic orientations** and the resources for achieving them for the period 2022-2024.

RTE's strategic orientations integrate objectives set by the public authorities (through the energy and climate law, the national multi-year energy plan (PPE<sup>(1)</sup>) and the national low carbon strategy (SNBC<sup>(2)</sup>)), which for RTE translate into its ten-year network development plan, the SDDR<sup>(3)</sup>, which is the company's general roadmap.

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(1) *Programmation pluriannuelle de l'énergie.*

(2) *Stratégie nationale bas carbone.*

(3) *Schéma décennal du développement du réseau.*

## 5.1 RTE AS PATHFINDER FOR PUBLIC DECISIONS

As part of its statutory missions, RTE regularly publishes prospective studies of the electricity system to inform public debate and public decisions for the energy transition in the medium and long term.

In recent years, as the need to speed up action for the energy and climate transition has grown more urgent than ever, RTE has made this role of pathfinder for public policies and optimiser a key focus of its work.

France's energy and climate targets are very ambitious. The rise of renewable energies and the integration of new electricity uses are significant developments that are already being addressed by the electricity system, and due preparation and planning is necessary as they gather pace.

More generally, the public debate on energy in France and Europe now concerns possible options for exiting fossil fuels to achieve carbon neutrality by 2050, in line with the 2015 Paris agreement. In addition to that 2050 goal, the interim milestones set out in the European Commission's new climate package (particularly the target of a 55% reduction in net greenhouse gas emissions from 1990 levels by 2030) are very demanding. Achieving all these objectives will require modifications to the French electricity system on a scale that has not been seen since France's nuclear electricity programme, and all system components will be affected.

For several years now RTE has published a large number of reports on these issues, and the scope of analysis has gradually expanded in response to the many questions raised by stakeholders and the public authorities.

To manage the timescale of adaptations to energy infrastructures, these studies are essential for informed public decision-making, but also for RTE's scheduling of infrastructure changes. RTE's next projections concerning the network's evolution will incorporate the latest transition scenarios for the electricity sector.

In the last two years RTE has supplied in-depth information about the challenges associated with integration of new electricity uses by 2035: reports on electric mobility, development of low-carbon hydrogen and the impact of energy policies on the building industry. RTE has also published successive analyses on supply security and evolution of the system over the coming ten years, notably its *Bilan prévisionnel* report on projected supply estimates for 2021-2030.

In 2021 RTE continued and enriched its programme of prospective studies about long-term changes in the electricity mix, to inform the public authorities and support the debate with stakeholders. Important developments took place in analyses of the period between now and 2050:

- publication on 27 January 2021, at the request of the Minister for the Ecological and Inclusive Transition, of a study conducted in partnership with the IEA (International Energy Agency) entitled *Conditions and Requirements for the Technical Feasibility of a Power System with a High Share of Renewables in France Towards 2050*. In parallel, a public consultation was held on the scoping and assumptions of all scenarios for the period to 2050;
- publication on 25 October 2021 of the key results of the *Energy Pathways to 2050* study, with RTE's presentation and analysis of various possible trajectories for achieving a carbon-neutral electricity system in 2050 (see section 4 – Significant events). To provide the most relevant input for public and expert debate, these studies are part of a vast concerted effort with all stakeholders, characterised by organisation of a large number of working groups and public consultations.

For example, for the work on the *Energy Pathways to 2050*, nine technical working groups were formed and nearly 50 meetings were held, involving representatives of over a hundred different organisations. This work was supported by scoping documents setting out the methods and assumptions considered by RTE, to promote transparency and discussion. Public consultation also collected a large number of stakeholders' and citizens' opinions of the assumptions used in the study. Some 4,000 comments were received, from a much broader range of actors than

in a typical consultation of experts on the electricity system. Such feedback is very valuable, and RTE responded by adapting the scope of the study, as described in the preliminary report summarising the results of this phase, published in June 2021<sup>(1)</sup>. All of these documents are available on RTE's customer consultation website<sup>(2)</sup> (some are available in English from RTE's main website).

The scope of the study was greatly expanded to answer the stakeholders' questions, covering flexibility analyses, consideration of climate change, the cost of the scenarios, environmental impacts, societal issues, network development and operations, and more. The work was demanding, and an enormous number of specific expert assessments by RTE were undertaken to address all the themes in the debate. The benefits of this work are unanimously acknowledged today in the energy world, but the expertise on the topics concerned must be maintained and strengthened internally at RTE.

Publication of the principal lessons of the *Energy Pathways to 2050* project (in an executive summary and a 650-page public report) had a very big impact on the public debate, and provided detailed, enlightening information about the conditions in which carbon neutrality is achievable. The related press conference attracted a wide audience, and was covered in the traditional media and on social networks. The results of the study have also been taken up in the debate on energy and climate policies ahead of France's forthcoming presidential election.

RTE is currently working on additional analyses to complement the *Energy Pathways to 2050* study, as announced during RTE's consultation procedure. If necessary this study may be followed up by extensions targeting certain key themes; particularly coupling electricity and gas networks with hydrogen, and network development planning.

More generally, RTE has proposed that the in-depth study of possible futures for the electricity system should be updated within five years once the orientations of the French energy and climate strategy have been adopted into a future programme law.

## 5.2 THE CHANGING VIEW OF THE ENERGY SYSTEM

### 5.2.1 CARBON NEUTRALITY

**To attain carbon neutrality, France's energy system must be completely transformed so that electricity can replace fossil fuels as the country's number one energy source.**

France's national low-carbon strategy (SNBC) sets out the roadmap for achieving carbon neutrality through a trajectory of reductions in greenhouse gas emissions until 2050. The French strategy to move to a low-carbon economy is also expressed in the **national multi-year energy plan** (PPE).

The most recent version of the SNBC, published in 2020, provided the framework for RTE's *Energy Pathways to 2050* study published in the autumn of 2021.

On the *demand* side, the SNBC is primarily founded on energy efficiency: it aims for a 40% reduction in final energy consumption in France over 30 years. This is a very ambitious target, situated in the higher end of the range of neighbouring countries' strategies.

On the *supply* side, the SNBC rests on two pillars: decarbonised electricity and domestically produced biomass. It thus excludes large-scale imports of green gases, non-sustainable biomass and decarbonised fuels, contrary to plans in some other European countries.

As a result, even with the ambitious energy efficiency goals contained in the SNBC, electricity consumption will follow an upward trajectory. In the *Energy Pathways to 2050* study RTE examines several different consumption trajectories, all involving higher levels than currently: a 35% increase in the baseline trajectory, a 17% increase in an energy sufficiency scenario, and an increase of more than 50% if France pursues extensive reindustrialisation.

(1) *Bilan de la phase 1 des futurs énergétiques 2050*.

(2) <https://www.concerte.fr>

These trajectories will raise the electricity share of total energy consumption to around 55%, compared to 25% currently.

This means that more decarbonised electricity will have to be produced, through an increasingly interconnected, agile, reliable electricity network, while progressively replacing electricity facilities as they arrive at the end of their operating lives.

## 5.2.2 ECONOMIC AND INDUSTRIAL REALITY

The cost of offshore wind farms is already decreasing, but their connection will account for a growing share of the full cost of offshore wind power.

Electric mobility is really on the rise, respecting the milestones of ambitious trajectories.

Hydrogen is a currently-considered option, and there are plans to make it a pillar of the energy transition.

The industrial world is contributing to decarbonisation action by reducing fossil fuel energy consumption: this is reflected in a significant increase in consumption of decarbonised electricity.

All these developments bring many challenging consequences for RTE. Section 5.3 explains the Company's responses in terms of actions and resources.

## 5.3 COMMITMENTS AND RESOURCES FOR IMPLEMENTATION

### 5.3.1 CORPORATE MISSION STATEMENT: IMPETUS & VISION

The corporate mission statement for 2025 retains the strategic objectives defined in the 2018 version, but they were updated during work on the company's strategic orientations.

The goal is still to achieve the industrial target set out in the SDDR.

In addition to the industrial strategy described from section 5.3.2 below, RTE has two key priorities to achieve this:

### — Appropriate internal organisation

Reorganisation of RTE's industrial activities is continuing, with the following objectives:

- adaptation of RTE's organisation for better forward planning and real-time action in a fast-changing electricity, cyber and societal environment. For example, 24-hour control centres were set up in April 2021 (see section 5.3.2.2 Adapting the industrial model);
- performance enhancement by using new digital technologies, sharing network study capacities in the medium and long term to cope with operational issues and changes in the network (grouping skills into three Network Study teams), and adapting the organisation of development and engineering teams to cope with the rise in network investments.

This reorganisation concerns all RTE's industrial functions in all the regions. Some activities (the common core) will still be exercised in all regions while others (specific activities) will be merged and only exercised in certain regions. These changes will also induce adjustments in the corporate, customer and expert assessment functions that work with them on a daily basis.

### New structure for the Divisions

The energy transition is driving profound change in the organisation of our business activities, and a Strategy, Prospective and Evaluation division was created in December 2020. This new division is in charge of:

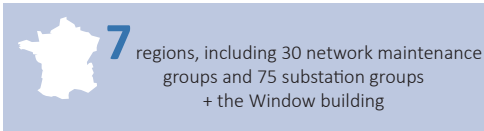
- prospective studies on medium and long-term changes in the electricity system, to provide neutral information for public decision-making about the country's energy future;
- developing RTE's internal strategy, to adapt the company's industrial equipment in response to the challenges of the energy transition;
- the evaluation function, for adjustment of the existing strategy to changes in the context and new arrivals on the market.

A Political Programmes and Evaluation committee, which reports to the new division, was also set up.

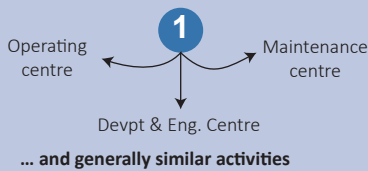


## THE ORGANISATION OF RTE'S INDUSTRIAL ACTIVITIES IS EVOLVING

### TODAY

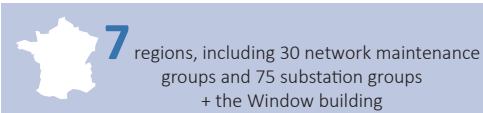


#### In each region



- 1**
- **Dispatching centre** per region, open 24 hours a day
  - National **Dispatching centre**

### In 2026



#### In the regions

##### 1 common core of activities in all regions



##### Specific activities for each region

- Management of assets
- General maintenance
- Project oversight, consultation
- Work for network expansion

#### The 24-hour centres project

- 1**
- **At least one 24-hour control centre in each region**, contributing to:
    - oversight of electricity flows, voltage and supply-demand balance;
    - equipment monitoring;
    - or IT, telecoms and cyber oversight

### — Continuing RTE's focus on the human factor

RTE wants its employees to be the central focus of its corporate mission. For this reason, in addition to the employee support measures introduced since 2018, the company's management wants to reassert the values guiding RTE's transformation plan, and the collective commitments that form a shared basis for action.

- Following on from the values promoted in 2016 to support its transformation, RTE wants to promote four values to guide individuals' day-to-day actions, relationships and behaviours: trust, team spirit, open-mindedness and responsibility.
- RTE wants to propose collective commitments to the company and its employees:
  - everyday action for safety: developing safety leadership skills and reinforcing the "safety culture";

- promoting employee happiness at work by durably maintaining quality of life in the workplace, and making suitable changes to the way work is organised;
- allowing every employee to construct their own career path by making RTE a place of opportunities, personal development and stimulating careers;
- enabling individual development, training and receptiveness by making the Campus Transfo<sup>(1)</sup> a home for interaction and mind-broadening, a multidisciplinary, international catalyst for new collaboration;
- facilitating employee engagement with inspiring, large-scale projects by applying the current best practices of project management, through professionalisation of project managers.

(1) RTE officially inaugurated its Transfo Campus in September 2021. The campus is a site dedicated to skills and innovation, staffed by RTE experts and trainers (250), and the objective is to provide training for 10,000 people. RTE wants this site to be outward-looking and build contacts with its industrial ecosystem, comprising the academic world, fellow transmission network operators, and suppliers.

### 5.3.2 RENEWAL AND ADAPTATION, INDUSTRIAL POLICY AND R&D ALIGNMENT

#### 5.3.2.1 Facilitating the expansion of renewable energies and changes in the energy mix

Electricity from renewable sources is expanding significantly. At the end of 2021, 18.8 GW of wind turbines and 13.5 GW of solar panels were installed on French territory, together covering 10.8% of average French power consumption (compared to 11.7% in 2020).

Under France's multi-year energy plan (PPE), onshore wind power capacity is due to be doubled, and photovoltaic solar power capacity is due to increase four-to-five-fold between 2018 and 2028; 5-6 GW of offshore wind power capacity are also due to be connected over the same period.

This strong growth dynamic in renewable energies is also set to continue in the longer term, so that France will achieve its climate objectives and be able to stop using fossil fuels. The *Energy Pathways to 2050* study published by RTE on 25 October 2021 shows that development of a broad minimum base of renewable energies (especially wind and solar power) will be necessary in the next thirty years.

These structural changes in the energy mix are taken into consideration in all RTE's electricity system scheduling and operation action. RTE is establishing appropriate conditions to encourage integration of renewable energies into the French electricity mix and ensure a good balance in the system at all times, so that the networks will never be an obstacle to a successful energy transition.

First and foremost, RTE is conducting in-depth prospective and analytical studies of the operation of an electricity system that is founded on a substantially increasing share of intermittent renewable energies. The joint study with the International Energy Agency on *Conditions and Requirements for the Technical Feasibility of a Power System with a High Share of Renewables in France Towards 2050*, published in January 2021 (see 4 – Significant events) and the report on the *Energy Pathways to 2050* study, published in October 2021, highlight the principal challenges associated with incorporating a significant share of renewable energies into the electricity mix (see 5.1 RTE as pathfinder for public decisions).

The main challenges for RTE in the medium term are those described in the Ten-year network development plan (SDDR) published in 2019: they concern both adaptation of the network infrastructure, and changes in system operation.

For forward planning, scheduling of network changes to include new wind and solar power plants is guided by the studies and consultations held in connection with revision of the "S3REnR" regional renewable energy connection plans, to ensure timely connection at the optimum cost for the community. The schedules published for connection of offshore wind farms illustrate the scheduling exercise as it concerns future marine energy facilities.

Incorporating an increasing share of renewable energies also entails a shift in modes of operation for the electricity system. The organisational change project (introduction of 24-hour control centres (see 5.3.2.2. Adapting the industrial model), integration of greater flexibility with dedicated tender offers, and the use of digital technologies (automata, captors, etc.) to optimise network operation are all key actions taken by RTE to ensure network balance.

Meanwhile, RTE is continuing research and development action to plan ahead for operation of an electricity system which by 2050 will mainly rely on renewable energies connected via power electronics.

#### 5.3.2.2 Adapting the industrial model

Over the next few years, integration of renewable energies and greater needs for equipment upgrades due to the advancing age of the network will mean that more flexible, optimised modes of operation must be found, notably involving digital solutions (automata, captors, etc.) and reinforced telecommunications systems. Meanwhile, connection of offshore wind farms and development of inter-connections (particularly undersea links with Spain, the United Kingdom and Ireland) will entail large-scale industrial projects with specific constraints.

RTE must now apply the principles of its ten-year network development plan (SDDR) through an efficient, comprehensive industrial strategy, develop the new generation of “S3REnR” regional renewable energy connection plans, and programme the incorporation of the next new offshore wind farms, in execution of the “DSF<sup>(1)</sup>” coastal planning strategies.

The SDDR highlights significant industrial challenges relating to the following five dimensions:

- (i) renewal of the existing network: priority for “everyday networks”;
- (ii) adaptations: structural changes to the network once renewable energies reach 50 GW;
- (iii) the basic digital framework: some devices need reinforcing to maintain security and efficiency in the electricity network;
- (iv) interconnections: a time-sequenced programme to double France’s energy exchange capacity in 15 years;
- (v) the offshore network: new infrastructures will be developed for effective evacuation of the renewable electricity generated offshore.

RTE’s industrial strategy is founded on the principles of long-term planning to control costs, standardisation of equipment, sharing of infrastructures (for example for connection of offshore wind farms) and adoption of digital technologies to further optimise the use of existing lines. This will reduce the need for network adaptation and renovation.

The SDDR is an industrial programming instrument in its own right, mobilising both RTE as the network operator and a broad industrial fabric of suppliers and contractors. RTE must now apply the orientations defined in the plan, both industrially and operationally, with managed and monitored trajectories, while adapting network oversight and operation methods.

#### — Adapting the network to the new deal for the next 15 years

Turning the SDDR into an operational work programme poses particularly significant challenges for coordination. From adapting the design-basis methods for the network, to conducting targeted studies, managing cross-functional projects, releasing external communication, and even participating in regulatory consultations, the necessary current and

future actions require input from a large number of RTE’s entities.

#### — Adapting network monitoring and operation in the 24-hour control centres

By 2026, RTE will operate its network and infrastructures differently. It will have nine 24-hour control centres operating round the clock 7 days a week, controlling and monitoring the networks and overseeing real-time exchanges of information about the operation and maintenance of the electricity and digital networks.

The objectives of this transformation are to put RTE’s industrial facilities, and its operation and oversight capacity, in a position to respond proactively to new challenges arising from the electricity and digital networks, and to the needs of customers and local areas.

In this new configuration:

- the electricity system will be operated in real-time from three 24-hour control centres located in Saint-Denis, Marseille and Nantes, replacing the current eight dispatching centres. This concentration will enable RTE to reduce the growing complexity of electricity system management;
- equipment will be monitored from five 24-hour control centres located in Lille, Lyon, Nancy, Nantes and Toulouse. These five centres will complement substation groupings, such that all electric equipment in the transmission network can be monitored round the clock. The new organisation will give RTE greater capacity to solve technical problems and also to anticipate problems thanks to closer surveillance, and contribute to better management of network assets by taking the opportunities offered by the new digital technologies;
- the information/telecommunications and cybersecurity systems will be monitored from a 24-hour control centre in Saint-Quentin-en-Yvelines. This centre opened in April 2021 and has been operational 24 hours a day since 1 September 2021. By the target date of 2023, by re-insourcing certain critical activities this centre will improve RTE’s ability to detect and repair telecom incidents, deal with information system incidents in real time, and fight cyberattacks.

(1) Documents stratégiques de façade.

Coordinated, 24-hour operation of these three types of control centre will enable the company to cope with more complex incidents more effectively, and respond more rapidly, than is currently the case. At any time of day or night, fuller real-time analyses of dysfunctions or incidents will be possible, to determine the causes and propose optimal solutions. 24-hour monitoring of the telecoms and information system infrastructures will also help RTE to foresee and prevent disturbances that could affect control centre operations.

### 5.3.2.3 Support for research and development, innovation, experimentation

The evolving electricity landscape and the energy transition will entail a new real-time mode of network operation.

Renewable energies, connected by power electronics and distributed across the whole of the country, must contribute to the system's resilience through response modes that differ from traditional types of power generation. It is now up to R&D to devise and validate appropriate devices for this new context, at the lowest cost possible, for timely deployment as the European energy mix evolves. A well-controlled schedule is also key, as timing can affect the equipment's constructive capacities: the contractual demands on future generation and consumption facilities need to be specified as early as possible if they are to perform as required.

RTE must also optimise the performance and cost of maintenance, operation and development of its own infrastructures, adding criteria relating to life-cycle analysis of facilities and their environmental impact.

Through the European research project Osmose, RTE is working to quantify the flexibility requirements for the electricity system of the future, which will incorporate more renewable energies, and to validate the most suitable technical options to meet these needs.

Osmose, headed by RTE, is a four-year (2018-2022) project involving a consortium of 33 partners (European TSOs, electricity producers, equipment manufacturers, IT companies, and consulting firms). Its

objectives are to anticipate flexibility requirements as renewable energies are incorporated, to make recommendations about the distribution between technological levers and new market mechanisms, and thus to achieve the energy transition at the lowest cost while maintaining the same quality of electricity supply.

As well as bringing new equipment into the network, R&D is using Artificial Intelligence and other approaches to enhance the decision-making softwares used in network operation, asset management and infrastructure adjustment. These softwares are being rolled out in the operational units in successive blocks, enabling the company to better incorporate consideration of the hazards, scenarios and trajectories that may affect decisions in the near or distant future.

The R&D teams are working both on the technical aspects of these new flexibility mechanisms<sup>(1)</sup>, and on changes in their value; this is a key axis of the CAP R&D roadmap for the next decade, which was published in 2021<sup>(2)</sup>.

## 5.3.3 DEVELOPING LEVERS OF FLEXIBILITY

### 5.3.3.1 Rolling out market mechanisms

For its operation, the electricity system requires physical infrastructures (high-voltage lines, substations, interconnections with neighbouring countries, etc.) and market mechanisms that guarantee coherence between commercial transactions and the physical flows of energy through the networks.

To maintain balance in the system, all the system actors must be coordinated to ensure real-time equilibrium between supply and demand in the network while guaranteeing safety in its operation. This is achieved through organisation of the electricity market. In France that mission is assigned to RTE, which must make sure that all the actors (energy producers, consumers, traders, etc.) can use the electricity market for electricity purchases/sales or interconnection capacity purchases in order to trade electricity with foreign countries, all as close to real time as possible.

(1) In the optimal development principle, having flexibility mechanisms makes it possible to smooth flows and thus limit infrastructure requirements. This in turn requires an ability to manage these flexibility mechanisms closely.

(2) RTE-Feuille\_route\_RD\_2021-2024.pdf (rte-france.com) (French only).

To address all the demands of the electricity system, elicit the necessary investments by its actors and anticipate all hazards that could affect production and consumption, RTE is introducing mechanisms covering different time horizons, ranging from capacity reservations sometimes taken several years in advance, to real-time activation of such reservations.

These national and European market mechanisms contribute to an economically optimised electricity supply by sending out the right economic signals to encourage investment in generation or demand-response action. Similarly, with its cross-border infrastructures and implementation of supranational mechanisms for fair, efficient allocation of interconnection capacities, RTE is contributing to the economy and the overall safety of interconnected European networks.

All these mechanisms are evolving to support the energy transition and promote integration of new forms of flexibility (renewable energies, batteries, etc.).

RTE's activities are governed by fast-evolving laws and regulations, both national and European. The primary objective is still to build a single market with European network codes<sup>(1)</sup> and guidelines that form a body of regulations common to all network operators, laying down the principles of electricity system management and cross-border interconnections.

In 2021 RTE continued to cooperate at European level with all stakeholders concerned by the application of network codes and the Clean Energy Package.

To take the integration of European markets further, RTE continues to operate under the supervision of the TERRE<sup>(2)</sup> platform, to which it connected in De-

cember 2020. Work at European level is continuing on the other two projects for balancing platforms (PICASSO<sup>(3)</sup> and MARI<sup>(4)</sup>), which are expected to open in 2022 and 2024, bringing transactions even closer to real time.

Also, like most European countries, France introduced a capacity mechanism in 2017, designed to meet the secure power supply criterion defined by the public authorities.

In 2020, RTE launched a consultation process with capacity mechanism actors, collecting feedback to build a factual, objective, quantified picture of the mechanism's operation since it began. This information will be used in reflections about the architecture and practical execution methods of the French capacity mechanism.

Following completion of this process in 2021 the company published a report in the summer, presenting all the analyses conducted and the resulting recommendations for consultation on adjustments to the mechanism.

RTE also runs an annual tender procedure on behalf of the French government to increase interruptible load contracts in order to meet France's national energy policy targets. In 2021, the capacity concerned was 2,400 MW, which is 1,000 MW more than the previous year.

Finally, to make up for the United Kingdom's withdrawal from European market coupling following Brexit, RTE and its British counterpart National Grid have set up explicit interconnection capacity auctions to continue electricity exchanges between the two countries.

(1) There are eight network codes and guidelines. They provide a body of rules for connection, network operation and market operation that apply to all network operators in the EU. This regulatory architecture defines the technical and operational requirements implemented directly at national level or adapted through application methodologies developed jointly by European TSOs. The Capacity Allocation and Congestion Management (CACM) guideline and the Electricity Balancing Guideline (EB/GL) directly concern market mechanisms, and are two of the most important network codes, driving significant changes in electricity system management at European level.

(2) Trans European Replacement Reserve Exchange.

(3) Platform for the International Coordination of the Automatic frequency restoration process and Stable System Operation (activation in less than 300 seconds).

(4) Manually Activated Reserves Initiative (activation in less than 15 minutes).

### 5.3.3.2 Maintaining European cooperation between TSOs

Two entities for cooperation between European TSOs are particularly important for RTE:

- ENTSO-E, the European TSOs' association set up in 2009, with a membership of 42 TSOs from 35 countries, which develops common rules (network codes and guidelines, the *Ten Year Network Development Plan*) in conjunction with the European Commission and the Agency for the Cooperation of Energy Regulators ACER;
- Coreso, the regional security coordinator (RTE is one of its founding shareholders), which is becoming a regional coordination centre in application of EU regulation 2019/943 on the internal market for electricity, that was revised for the "Clean Energy" package.

Due to the effect of European regulations, the missions and scopes of these cooperation entities are evolving and require dedicated human and financial resources, particularly experts. RTE is working proactively to support the development of these entities, putting in the necessary resources and expert capacities in coordination with its European partners.

#### — RTE's European cooperation with its counterparts in ENTSO-E

Hervé Laffaye, one of RTE's Deputy Managing Directors, was elected President of ENTSO-E in 2019 and re-elected for a further two-year term at the General Meeting of 31 March 2021. RTE representatives also hold positions in the association's Board, committees and key working parties, particularly for the interface between transmission and distribution network operators, as the new European association for distribution network operators, the EU-DSO Entity, was created on 8 June 2021.

#### — RTE's regional cooperation with its counterparts in Coreso

For Coreso, the change of model from regional security centres to regional coordination centres (RCC) comes with broader missions covering a geographical scope that is called the system operation region. Working in close collaboration with the members and other regional centres, Coreso optimises interconnection capacities at borders

and produces reliable security analyses about the reciprocal impacts between national networks; this is particularly necessary in a single market, to make sure that power exchanges are never incompatible with system security. These coordinated capacity calculations and security studies must now be produced by the TSOs, unless they can explicitly justify any exemption. On 18 June 2021, Sébastien Henry, RTE's Executive Director in charge of the Information Systems and Telecommunications Department, was elected Chairman of Coreso's Board of Directors.

#### — Changes in cooperation frameworks with the British and Swiss TSOs

Another important event of 2021 was a new development in institutional relations between the EU and the UK, and relations with Switzerland, whose electricity systems are interconnected with the French system. Application from 1 January 2021 to the new EU-UK Trade and cooperation agreement signed on 30 December 2020 after Brexit, and the breakdown during 2021 of negotiations for a framework agreement between Switzerland and the European Union, have led to changes in cooperation frameworks between EU TSOs and their counterparts in the UK (NGESO) and Switzerland (Swissgrid) while taking care to preserve security in interdependent, interconnected electricity systems.

#### — RTE's partnerships and cooperation with other actors and stakeholders in the European electricity system

The formation in 2021 of the European association the EU-DSO Entity is a milestone in cooperation between distribution operators and TSOs, through the intermediary of the transmission operators' association ENTSO-E. RTE's relations with electricity distribution network operators are set to intensify over shared European challenges, particularly to elaborate new network codes for cybersecurity and demand flexibility, which will be prepared jointly by ENTSO-E and the EU-DSO Entity.

RTE is actively involved in a number of European professional forums and professional associations. It is a member of the European Parliament's European Energy Forum, the Renewable Grid Initiative (RGI), the European Association for Storage of Energy (EASE) and the Roundtable for Europe's Energy Future, and is a partner of IFRI (the French interna-

tional relations institute). In 2021 RTE joined SGI Europe<sup>(1)</sup> and the European Policy Centre's Sustainable prosperity for Europe (SPfE) programme<sup>(2)</sup>.

### 5.3.3.3 Increasing European interconnections

Developing electricity interconnections is one of the pillars of European Union energy policy. Cross-border interconnections underpin the single electricity market and have facilitated a gradual shift from a national to a European approach to generation fleet operation. By exploiting energy complementarities between countries, interconnections make an essential contribution to the incorporation of renewable energies, and are a key component of the energy transition. This European priority is reflected in the target set for each Member State: raising its level of interconnection to 10% by 2020 and 15% by 2030.

The key aim of RTE's 10-year network development plan is to double France's interconnection capacity in fifteen years, from around 15 GW currently to around 30 GW by 2035. This ambitious target is coherent with European Union and French policy priorities and connects up with the European Ten-Year Network Development Plan (TYNDP) developed by ENTSO-E. To achieve it, interconnections will have to be developed across all of France's borders. Some fifteen projects have been identified to develop or reinforce interconnections, and are at varying stages of maturity. Any investment decision for a new interconnection remains conditional on a socio-economic cost-benefit analysis demonstrating that the project would be profitable for the European community.

At national level, France's energy roadmap also includes a substantial rise in interconnections. This is reflected in the reinforcement projects on all borders set out in the country's multi-year energy plan. The 2019 Mid-term adequacy report<sup>(3)</sup> showed that an increase in network capacity is essential for a

good technical and economic balance in the electricity mix as envisaged in the multi-year energy plan.

The more recently published "Energy Pathways to 2050" report concludes that interconnection reinforcement is necessary in every scenario considered, and proposes an import capacity of 39 GW (compared to the current 13 GW) as a good compromise between the economic optimum and technical and political realism.

At European level, the 2020 European TYNDP confirmed the need for significant development of European interconnections over horizons to 2030 (+50 GW) and 2040 (+93 GW). This document is currently being updated, with the next edition due to be published in the second half of 2022.

**Several European interconnection projects led by RTE saw significant developments during 2021.**

In its 2019 10-year network development plan (SDDR), RTE grouped its projects into "coherent subsets" for sequential development, divided into the following groups:

- a batch of "certain" projects ("batch 0") comprising interconnections that were currently in construction and due to be commissioned between 2019 and 2022;
- a batch of "no regrets" projects ("batch 1") comprising interconnections that were already scheduled or on the point of being scheduled because they were profitable and politically mature;
- a batch of "conditional" projects ("batch 2") comprising interconnection projects surrounded by greater uncertainty, which would be scheduled in the next few years subject to fulfilment of a number of conditions.

At the end of 2021, batch 0 was 33% complete (the objective is 100% completion by the end of 2022) and batch 1 was 20% complete (the objective is 40% completion by the end of 2022).

(1) A European association offering services of general interest (SGIs) for public and private entities to support sustainable development, growth and innovation.

(2) A European policy that explores the foundations and drivers for achieving an environmentally sustainable and competitive European economy.

(3) This 2019 report updates the diagnosis of changes in the supply-demand balance over a 5-year horizon, drawing on the latest information and decisions concerning changes in consumption and the generation fleet.



In more practical terms, 2021 saw the start of commercial operation by the IFA2 interconnector, as described in 4. Significant events. This complements the first IFA interconnector (dating from 1986, with a capacity of 2,000 MW) and has increased power exchange capacities between France and England. It also brought significant, very concrete improvements to power supply reliability in France: after a fire at a converter station on 15 September 2021, described in 4. Significant events, the IFA interconnector was out of service for almost one month, but since the IFA2 was in operation this incident had no significant impact on power supply reliability in France, and electricity imports from (and exports to) the UK could continue.

On the Savoy-Piedmont project, the essential development in 2021 was the verification and acceptance testing of its low-voltage command/protection facilities, and preparation of preliminary testing before the interconnection is commissioned.

Several other undersea and underground interconnection projects are currently in development or construction:

- the Bay of Biscay project, developed with REE, to construct a 2,000 MW-capacity interconnector between France and Spain under the Atlantic. Progress on this project in 2021 mainly concerned identification in the first half-year, then validation in September, of a preferred alternative route taking an onshore detour to avoid the Capbreton submarine canyon. Applications for the administrative authorisations were filed at the end of the year. In parallel, RTE and REE are holding a consultation with selected suppliers for the cables and converter stations for this project. Clearance by the authorities and awarding of the contracts are expected to occur on the first half-year of 2023;
- the Celtic Interconnector project with EirGrid to create an approximately 575 km-long, 700 MW electricity interconnection between Brittany in north-west France and Cork in south-west Ireland. The principal steps forward in 2021 were examination of the applications for official authorisations, and the start of the associated public inquiry in late November. Meanwhile, RTE and Eirgrid are holding a consultation with selected suppliers for the cables and converter stations for this project. Clearance by the authorities and contract awards are expected in the second half-year of 2022;
- RTE and Elia currently have a project to reinforce the existing France-Belgium interconnection between the Avelin substation in France and the

Avelgem substation in Belgium, by replacing the existing cables with low-expansion cables on the two 400 kV Avelgem-Avelin and Avelgem-Mastaing circuits (this concerns 20 km of lines in France). Some initial work was done on the pylons in 2019, but the project took a leap forward on the French side in March 2021 when work began at the Mastaing substation. Cable replacement work will take place afterwards, in 2022. Once the new facilities are put into operation, each circuit will have 1,000 MW more capacity than currently.

### 5.3.4 EXPLOITING DIGITAL TECHNOLOGIES

Wind and photovoltaic power are renewable energies and do not contribute to global warming, but have the disadvantages of high variability and low predictability beyond a horizon of a few days.

Greater reliance on this type of energy increases uncertainty and shortens the decision times for real-time management of the electricity system, both as regards the supply-demand balance and managing power flows through the network. Digital technologies are put to use to compensate for these disadvantages and construct responses to the challenge of incorporating several dozen GW of wind and photovoltaic power output. Digital technologies should optimise operation of existing infrastructures and their maintenance in future years.

**RTE is rolling out state-of-the-art digital technologies at national level, at local level in zones where the network is constrained, and in every substation in the network.**

In France, RTE has been renewing and modernising the information system used to run the electricity grid since early 2017. The supervisory control and data acquisition (SCADA) system used for real-time electricity system oversight from national and regional dispatching centres is being revised. Development of the industrial version was completed in 2021. Its configuration and parameters are currently being defined before a test phase in the spring, with rollout scheduled for the autumn of 2022. This new SCADA system is designed to take account of the new European codes for network balance.

At the level of a single electricity zone, a “new adaptive zone automaton” (NAZA) that resolves network equipment transit constraints by adapting the network topology and generation output in the relevant zone was developed and tested as early as



2019. Industrial rollout of these automata will begin in 2022. The NAZA demonstrators achieved two major milestones in 2021: managing a Ringo battery to handle congestion on the HTB1 high-voltage network and modulating connected wind power generation connected to the HTA high-voltage network.

Finally, at local level, RTE has been replacing command and control technologies in its electricity substations with digital technology since 2006. R#SPACE, the next-generation digital command and control technology for substations, will be an industrial foundation to facilitate large-scale incorporation of advanced automation and asset monitoring functions, which will notably benefit renewable energies.

R#SPACE is still in the design phase. The principal contracts with the industrial partners responsible for making the first R#SPACE substations were signed in 2020, and the technology is due to be implemented in pilot sites from 2023.

RTE also engages with stakeholders in their use and interpretation of data, and is stepping up support in this respect. RTE provides clarifications and promotes the benefits of data service offerings, from Open Data to value-added services such as Eco2Mix or trend analyses such as reports on the electricity system, which are levers of economic performance for local authorities.

RTE has already experimented with and integrated artificial intelligence (AI)-based operation solutions in dispatching centres and data science studies, but the time has now come for a more explicit “augmented” intelligence strategy to meet the company’s new challenges and make fullest use of mature technological opportunities. With this aim, RTE launched the ORIGAMI project for network development studies, in the form of an innovation partnership. This project will enable the company to assess the contributions of different forms of AI (semantic analysis, natural language, deep learning), and will improve the very complex process of constructing hypotheses concerning electricity generation and consumption for long-term studies.

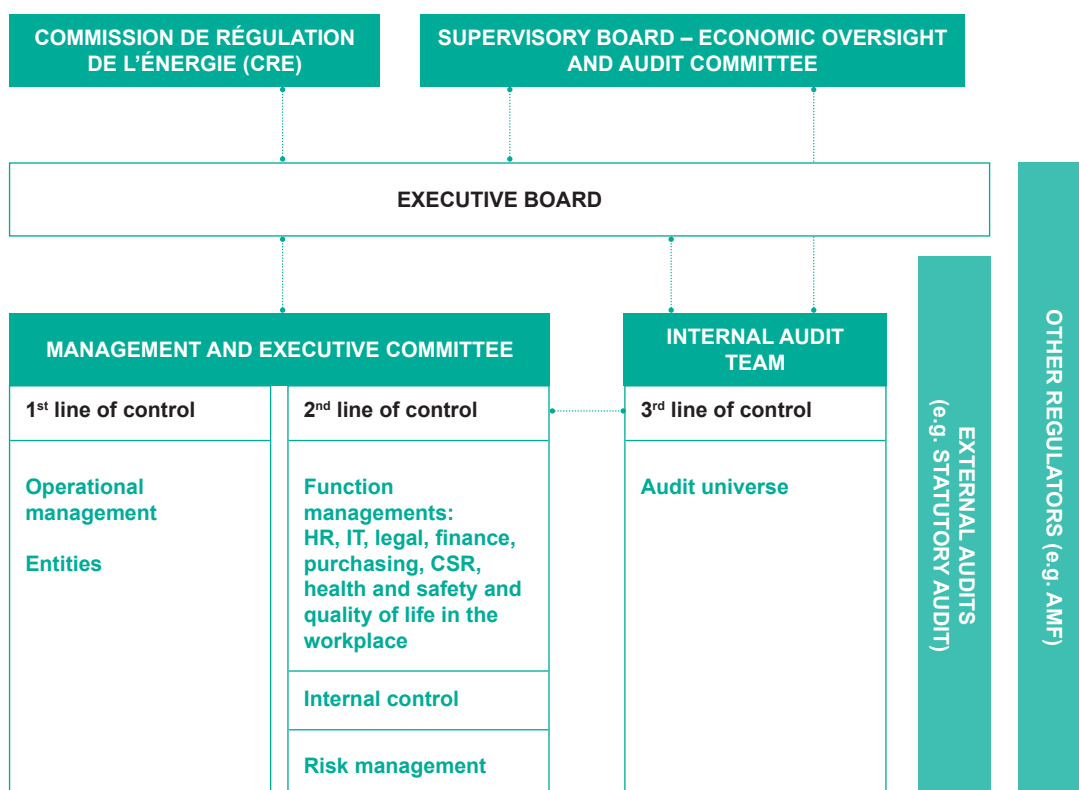


6.

## **Risks and the control framework**

## 6.1 RTE'S GENERAL BUSINESS CONTROL

RTE has introduced procedures for control of its business activities which are integrated at all levels of the company. These procedures are designed to give management reasonable assurance regarding the execution of activities and implementation of decisions made in order to achieve the goals set. They contribute to efficiency in operations, with the aim of using resources effectively. They consist of three lines of control, for protection against risks that could compromise achievement of objectives, as shown in the diagram below:



The first line of control (operational controls: level 1) is performed by operational staff and their managers, and concerns all actions by which the operational employees themselves make sure their task has been properly completed. RTE's internal control guide, which is prepared and regularly updated with input from the function managements, provides a frame of reference to help managers in their internal control work.

The second line of control (internal control and risk management: level 2) is performed by the function managements, with the aim of structuring and maintaining the business control procedures, principally by:

- assisting operational staff with identification and assessment of the main risks in their work;
- proposing policies and directives for each function;
- contributing together with functions to designing the most relevant controls, particularly for the "function monitoring orientations", all grouped into a "monitoring and internal control plan";
- observing and reporting on the actual operation of processes in a specific function report.

Internal audit is the company's third line of control (level 3). An annual audit plan is proposed to the Executive Board, constructed under the "audit universe" methodology described in section 3.4.

## 6.2 RISK CONTROL

### 6.2.1 GENERAL RISK CONTROL PROCESS

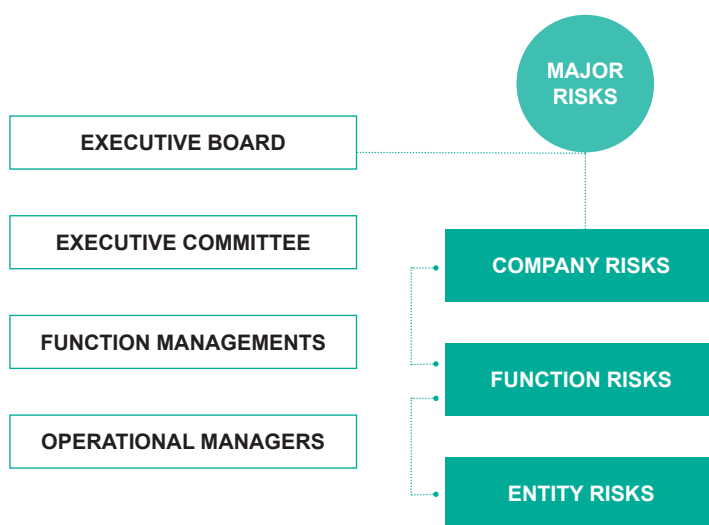
#### 6.2.1.1 Context

The risk control process is coherent with the company's mission and objectives. RTE applies the risk control principles of the French market regulator AMF's<sup>(1)</sup> 2010 framework for French companies whose shares are admitted to trading on a regulated

market. Risk control and internal control are instruments for action, control and surveillance; they concern every employee and involve each manager at all levels of the corporate hierarchy.

#### 6.2.1.2 Roles and responsibilities

The risk control process is organised at several levels in the company (see figure below). The principal risks are identified and addressed at each level for optimum control.



#### 1. Company risks:

- RTE's Executive Committee examines and assesses the risks affecting RTE every half-year, and identifies the major risks among them.
- Major risks are risks that match criteria defined by the Executive Board: a risk is classified as major if the consequences of its occurrence could threaten the network's survival, RTE's missions, or human safety. The criteria and thresholds are reviewed annually by the Executive Board. Selection is currently based on five criteria of a strategic, financial, reputation, social and environmental nature.
- Each major risk is addressed under the supervision of a member of the executive committee or Executive Board, and covered by a company action plan for control, which guarantees coherence between the corporate mission statement priorities and practical control steps.

- Based on the strategic orientations, changes in the context, risk analyses by the functions, dashboard monitoring, consideration of audit observations and conclusions, internal control results, follow-ups of control action plans, events and weak signals and cross-comparisons with other companies, a list of risks to be monitored is drawn up. The list is validated by the executive committee and may be included in the register of risks.

#### 2. Function risks:

- The directors of the functions (operations, maintenance, development and engineering, purchasing, human resources, finance, customers, information and telecommunication system, etc.) are responsible for organising risk control for their own activities and making sure it is implemented and the procedures used are effective.

(1) AMF – Autorité des marchés financiers.

- These analyses are informed by the internal control results and audit recommendations.
- Specific risks relating to the environment are also identified at the function level, then concatenated by the environmental consultation department (part of the development and engineering division) for the purposes of covering these risks, in line with ISO 14001 certification.

### 3. Entity risks:

- The operational entities' risks are identified on the basis of the function risks and a local analysis conducted in relation to their objectives.
- Risk mapping for these entities is thus informed by the risks attached to the processes, projects and activities they manage, and also by cross-functional activities.
- Specific risk analyses are also performed, for example in connection with projects or regulatory obligations.

Every year, the Supervisory Board's Economic oversight and Audit Committee reviews the audit and internal control results, the follow-up of post-audit action plans, and changes made to RTE's major risk mapping and the associated projected audit schedule.

The audit and risk division is in charge of designing and leading the risk control process, supporting the other divisions. This division contributes to operational risk control implementation by coordinating the risk management and internal control officers located in each of the company's divisions and regional entities, and promotes a culture of risk anticipation and control at RTE. It oversees application of the internal control and risk control methodology, structures its contributions, ensures timely production and supports the local officers in their action, defining expectations in relation to the best standards.

The audit and risk division also carries out regular external diagnoses of its activities with bodies that are members of the Institute of Internal Auditors (IIA), to keep in touch with best practices and define action for improvement. A roadmap for adjusting the risk control process to meet the latest recom-

mendations (COSO2 and ISO 31000-2018) was drawn up in 2020 and is now generally applied. The division's personnel receive training from the same bodies.

Finally, in 2021 RTE's governance bodies merged all the support functions that contribute to risk control. Consequently the audit and risk division now contains the risk management and internal control functions which used to report to it, but also the financial risk control team and the insurance functions which were mostly exercised by the insurance team previously. The audit and risk division now consists of an internal audit department, a risk control department, and an insurance department. This reorganisation was introduced in order to:

- create synergies and encourage cross-function cooperation between these teams who are pursuing the same goals: reinforcing control of the risks facing the company, and its functions and entities;
- build a centralised, all-round view in this division and its field, consolidated at company level;
- encourage sharing of skills, methods and good practices;
- increase the robustness of certain activities which were previously performed in small units.

## 6.2.1.3 Methodology

### — General methodology

Through this framework, every level of the company shares the same methodology for assessing (identification, analysis, evaluation) and addressing risks, as well as monitoring and reviewing the internal control procedures.

In this methodological framework, every risk is assessed on the basis of its impact, its likelihood of occurrence and its controllability by RTE, using a four-level scale and common grids of criteria.

After analysis, the residual risk is evaluated and managed with action designed to limit the risk (in terms of the consequences if it materialises), reduce the likelihood of occurrence, or protect the company against the risk through an insurance policy.

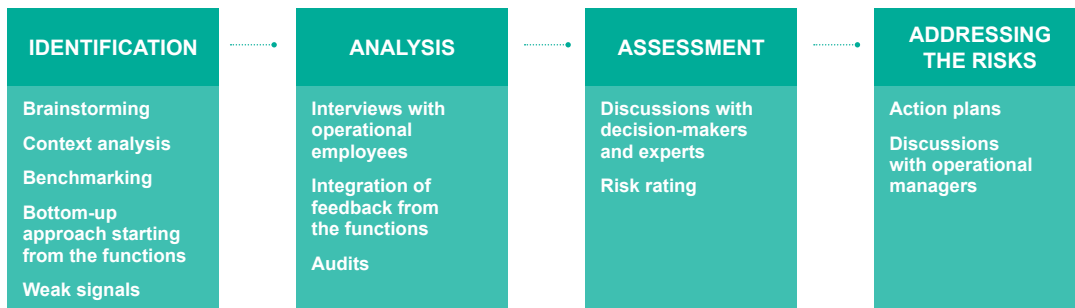
The diagram below illustrates the general risk control methodology:



#### — Methodology applied to company risks

Every year, the audit and risk division draws up a list of risks that could be added to the list of company risks. In this phase, new risks may result from bottom-up consolidation of function risks, subjects

identified during benchmarking with other TSOs, or weak signals captured via the network of risk control officers. A regularly updated context analysis and event monitoring also supply useful information for new inclusions in this list.



This list of new risks is presented to the Executive Board during a risk committee meeting, before validation of the risk mapping. At the committee meeting, Executive Board members select certain risks for further examination. The audit and risk division then interviews the company's decision-makers and experts to form an opinion. At the following risk committee meeting, the selected risks are discussed once more based on the information collected, and the Executive Board decides whether the risk should be included in the list of company risks, or whether more analysis is needed. The new risks are then assessed and addressed if relevant. These stages can be accelerated if the Executive Board considers that a risk needs to be addressed faster.

#### — Risk typologies

RTE only examines the residual risks (after implementation of the existing risk control process), except in the case of corruption risk mapping (in application of the "Sapin 2" law).

Section 6.2.2.2 describes each major risk and the principal control measures associated with it.

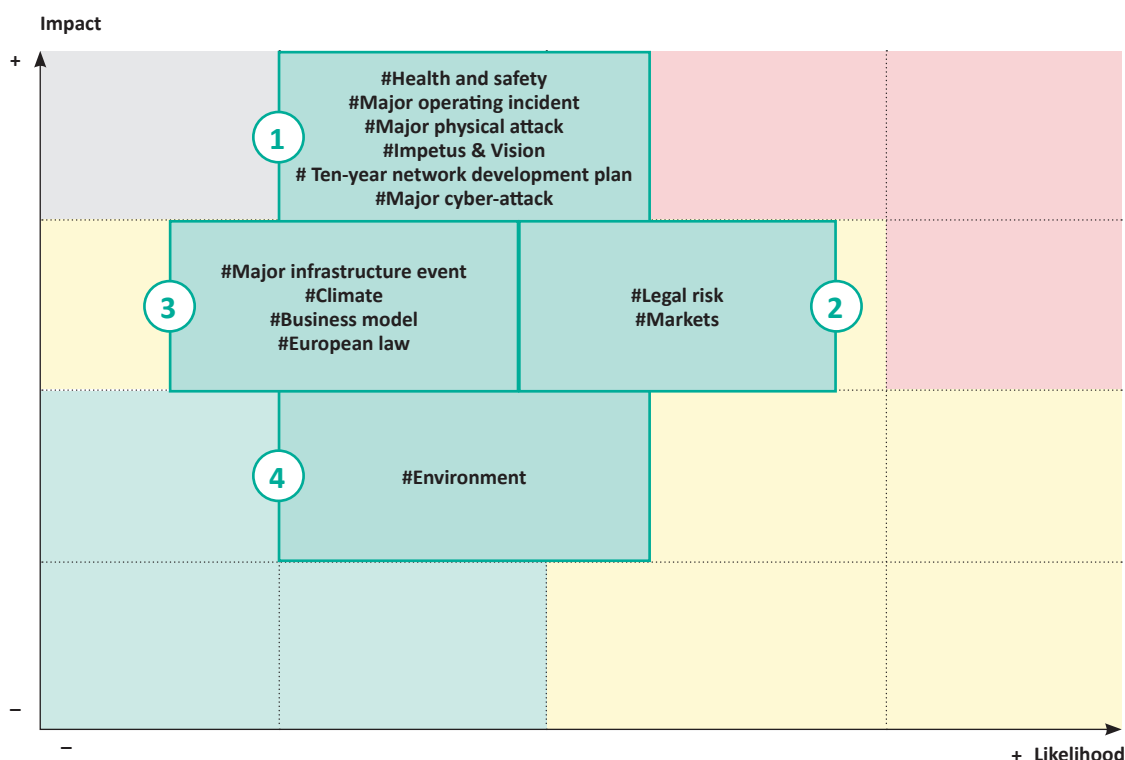
#### 6.2.2 MAPPING OF RTE'S MAJOR RISKS

Risk mapping (impact/likelihood and criticality/level of control) provides a visual representation of risks

and their positions in relation to each other. The mapping of major risks is updated half-yearly and validated by the Executive Board, in coherence with the corporate mission statement. Risk control is thus a continuous, constantly-evolving process.

### 6.2.2.1 Ranking of major risks

Major risks are ranked by priority from 1 to 4 under an approach that combines consideration of their impact and likelihood, as illustrated in the simplified version of the impact/likelihood risk mapping below. Each major risk is identified by its short name (see the table in 6.2.2.2).



The summary table in section 6.2.2.2 identifies the major risks and the principal resources for controlling them. The NFR (non-financial risk) column indicates whether a risk is identified as having crucial CSR impacts, based on the methodology presented in

section 4. For non-financial risks, a table in section 7 provides details of the policies designed to control the risks concerned, the indicators used, and the associated results.



### 6.2.2.2 Summary of major risks and principal control measures

Priority	Name of risk	Description of the risk	Principal control measures	NFR <sup>(1)</sup>
1	<b>#Health and safety</b> Serious failing in safety for employees, contractors and third parties	Risks of accidents for RTE's employees or contractors in the course of their work	<ul style="list-style-type: none"> <li>• Division in charge of health, safety and quality of life at work</li> <li>• Policy for health, safety and quality of life at work and the safety management system based on the MASE<sup>(2)</sup> principles</li> <li>• RTE's "Safety Impetus" programme and its priority projects concerning safety, from real-time design: the rules that save lives, safety leadership, technicians' safety skills, safety in design, safety in scheduling, contractor safety, implementation of the 1992 Decree, low-voltage outages, thorough preparation of work, making use of weak signals</li> <li>• Safety reporting and information procedures, and the associated information system, RTE-Prévention</li> <li>• Technical safety guide for operational employees, with an associated information system</li> <li>• Feedback on the Covid-19 crisis</li> <li>• Safety guide for third parties and national and local communication campaigns targeting the riskiest activities near power lines ("Careful beneath the lines!")</li> <li>• National and local cooperation with county fire and emergency services</li> </ul>	Yes
1	<b>#Major operating incident</b> Incident affecting the electricity network that could cause a blackout	Serious operating incidents that could result in power cuts for customers and potentially in partial or total collapse of the network	<ul style="list-style-type: none"> <li>• Operating and development doctrines</li> <li>• Network defence, protection and restoration plan</li> <li>• Safety report and associated action plans for improvement</li> <li>• Implementation of the action for improvement decided after feedback on safety events</li> <li>• Policies for electricity quality and maximum current-carrying capacity</li> <li>• Continuous improvement of RTE's crisis management procedure (ORTEC), regular crisis exercises</li> <li>• Coordinated rollout of European network codes</li> <li>• Internal in-service training and external awareness-raising about safety in electricity system operation</li> </ul>	Yes
1	<b>#Major physical attack</b> Large-scale physical attack on RTE's vital infrastructures	RTE may be exposed to deliberate malicious acts against its infrastructure (theft, damage, sabotage, etc.), or even terrorist acts with significant operational impact and the potential to harm the company's image.	<ul style="list-style-type: none"> <li>• Division in charge of the safety and security of physical assets (DIRSEC)</li> <li>• Safety and security instructions for physical assets (DSP)</li> <li>• Technical policies intended to maintain and develop secure access procedures for sensitive premises and facilities, and to protect physical assets</li> <li>• Administrative background checks for external contractors and service providers, new recruits and employees occupying sensitive positions</li> <li>• Training and coordination of asset safety officers</li> <li>• Deployment of video information systems</li> </ul>	Yes

Priority	Name of risk	Description of the risk	Principal control measures	NFR <sup>(1)</sup>
1	<b>#Major cyber-attack</b> Large-scale cyber-attack on RTE's information systems with a major impact on continuity of critical activities	RTE may be exposed to cyber-attacks against its information system, resulting from a security flaw or a deliberate aim to damage a vitally important infrastructure	<ul style="list-style-type: none"> <li>• Division in charge of information systems and telecommunications (DSIT)</li> <li>• Information System Security Policy (PSSI)</li> <li>• Responding to the requirements of France's military programme law, and following the recommendations of the ANSSI<sup>(1)</sup> (French national authority for information systems security) through a partnership agreement</li> <li>• Strengthening the first line of defence (employee training and awareness-raising, inspections, regular tests, workstation figures)</li> <li>• Annual cyber crisis exercise as part of the crisis management procedure (ORTEC).</li> <li>• Gradual establishment of a 24-hour, 7/7 control centre for information systems and cybersecurity, to be complete in 2023; in 2021, the cybersecurity team started work in the digital networks and systems control centre</li> <li>• Participation in expert committees dedicated to energy systems</li> <li>• Contractual extension of the relevant requirements and verifications to suppliers</li> </ul>	Yes
1	<b>#Impetus &amp; vision</b> Inability (including for HR reasons) to make the industrial transformation set out in the "Impetus & Vision" corporate mission statement by 2025	RTE's ability to achieve, by 2025, the necessary changes to support the evolutions triggered by the energy, technological and digital transition, and by new demands from customers and local areas	<ul style="list-style-type: none"> <li>• "Impetus &amp; Vision" corporate mission statement</li> <li>• Project management that coordinates all initiatives in a defined comitology process and regularly reports progress to the Executive Committee using a quarterly dashboard</li> <li>• Definition in 2020 of the target for industrial activity by 2025 and the appropriate skill requirements, to provide clarity for employees, prepare career paths, and study the company's resilience in all its dimensions (with reference to the Covid-19 crisis, major operating incidents, business continuity, etc.)</li> <li>• Significant use of experimentation phases and collaborative work to fine-tune the target and elicit employee engagement</li> <li>• Start of work on the prerequisites for change, using precise reverse scheduling: new industrial facilities, training for the jobs of the future, real estate projects, measures to support mobility, working time arrangements in the future organisations</li> <li>• Setting up a pioneering team for the telecoms/information systems and cybersecurity control centre two years before its opening date, to test the new processes progressively and plan the workload ramp-up</li> </ul>	Yes
1	<b>#Ten-year network development plan (SDDR)</b> Inability to upgrade and adapt the ageing onshore network and develop the offshore network in line with the time objectives set out in the SDDR	RTE's ability to implement the five industrial dimensions of the SDDR, which are key to a successful energy transition and achievement of the ambitious objectives defined in the national multi-year energy plan (PPE)	<ul style="list-style-type: none"> <li>• Validation by the CRE of almost all the SDDR, with minor reservations</li> <li>• Securing a sufficient TURPE network access tariff for successful execution of this large-scale industrial programme</li> <li>• Launch of a "Performance" project in the development and engineering division</li> <li>• Reorganisation of the strategic budget processes: settling objectives and prioritising resources</li> <li>• Reorganisation of RTE's governance in line with the main dimensions of the SDDR</li> <li>• Creation of the national network engineering centre (CIREN) in charge of atypical major projects (offshore and direct-current projects) in the development &amp; engineering division, with appropriate staff numbers and skills</li> <li>• Creation of a marine affairs division</li> </ul>	Yes
2	<b>#Legal risk</b> Non-compliance with the law	Any failure to comply with laws and regulations exposes RTE to a significant risk, depending on the sanctions applicable	<ul style="list-style-type: none"> <li>• Division in charge of legal affairs (DJ)</li> <li>• Creation of the ethics and compliance division, in charge of compliance with matters relating to the GDPR and France's "Sapin 2" law and duty of vigilance law</li> <li>• Monitoring laws and regulations concerning statutory obligations applicable to all companies of RTE's size, and more specific obligations (e.g. under the Energy Code)</li> <li>• Procedures are currently being reinforced to meet recent obligations, particularly concerning anti-fraud and corruption, the duty of vigilance, and management of personal data (France's "Sapin 2" law and duty of vigilance law, the GDPR – general data protection regulation)</li> <li>• Action plan following annual publication of the code of conduct report</li> </ul>	Yes

Priority	Name of risk	Description of the risk	Principal control measures	NFR <sup>(1)</sup>
2	<b># Markets</b> Shortcomings in the design or implementation of market mechanisms	Difficulties with design or implementation of market mechanisms	<ul style="list-style-type: none"> <li>Electricity system economy division (DiESE), in charge of designing market mechanisms and preparing them for operation</li> <li>Preparation of a roadmap for the capacity mechanism following feedback collected in 2020 from electricity market actors and stakeholders (concerning efficiency, internal and external operating problems, etc.)</li> <li>Simplification and improvement of the capacity reservation contract, and use of harmonised wording in contracts (interruptible load contracts, demand-response tender, reserves)</li> <li>Review of the supply-demand balance roadmap with clarification of priorities (e.g. real-time control of information systems and the back-office system, frequency action plan, etc.)</li> <li>Introduction of a new organisation for cross-functional management of the supply-demand balance, providing an overview of changes by process, with input from operational employees over the whole life-cycle of projects, the goal being to verify RTE's response capacity</li> <li>Diagnostic of market rule complexity and RTE's consultation methods</li> <li>Preparation of a "Markets" roadmap</li> </ul>	No
3	<b>#European law</b> Changes in European laws that weaken RTE's structure or missions	Changes in the legal framework could be a risk for RTE if they scale down or limit its missions and therefore its efficiency	<ul style="list-style-type: none"> <li>Division in charge of European affairs (DAE)</li> <li>Rationalised organisation and dedicated comitology. Internal coordination, essentially for adaptation of the "Clean energy for all Europeans" package</li> <li>Positioning RTE as a source of ideas and innovation, to avoid uncontrolled change in European laws that would affect the network's performance, and potentially its safety</li> <li>Continuous action in coordination with ENTSO-E, particularly at RTE's Brussels office, with European institutions, electricity market actors and stakeholders</li> <li>Staged rollout of the fourth "Clean energy for all Europeans" package while continuing to apply the "network codes" from the third package: forthcoming establishment of regional coordination centres, new market rules (minimum of 70% for cross-border capacities offered to the market, sharing redispatching costs, etc.). Preparation of the "Green Deal" and the "Fit for 55" package.</li> <li>RTE's "all-round" transmission system operator (TSO) model, which has many advantages because it fosters synergies between the different business functions involved in electricity transmission, and also because it performs its mission along the whole of the value chain</li> </ul>	No
3	<b>#Major infrastructure event</b> Contingent event with a major impact on the network infrastructure or other company assets	Accidents, fires or incidents leading to substantial material damage, with high media coverage	<ul style="list-style-type: none"> <li>Continuous improvement of the RTE crisis management procedure (ORTEC), regular crisis exercises</li> <li>Implementation of the action for improvement decided after collecting feedback on infrastructure events</li> <li>Feedback on gales, heatwaves and floods, currently indicating that network resilience is in line with the rules underlying its structure and design basis</li> <li>Stormproofing policy</li> <li>Preventive action policies against risks associated with an ageing network, as included in RTE's ten-year network development plan (SDDR): replacement of instrument transformers, the metal-enclosed substation plan, the power line pylon corrosion plan, the management plan for vegetation around power lines, the conductor plan, the transformer bushing plan, handling obsolescence in command-and-control equipment, etc.</li> <li>Mobilisation of the operational teams (first-response teams), use of the national equipment reserve and implementation of special resources (provisional links, mobile units, airborne fleet, etc.).</li> <li>Updating the flood plan in view of the risk of once-in-a-century flooding by the river Seine, jointly with Enedis, to improve resilience in the Paris region.</li> </ul>	Yes

Priority	Name of risk	Description of the risk	Principal control measures	NFR <sup>(1)</sup>
3	<b>#Climate</b> Inability to adapt the infrastructure, activities and organisation to the consequences of climate change	RTE is exposed to unpredictable weather events and will be affected by the accentuation of certain weather phenomena as a result of climate change	<ul style="list-style-type: none"> <li>• Launch of the “Resilience to climate change” project: after finalisation of preliminary studies, the results are incorporated into the asset management policies and studies are continuing, particularly concerning heatwaves and floods.</li> <li>• Technical benchmarking against 15 other TSOs</li> <li>• Study of the effects on buildings and the organisation of work</li> <li>• Stormproofing policy</li> <li>• Ten-year network development plan (SDDR)</li> <li>• Climate scenario development for the purposes of the <i>Energy Pathways</i> report</li> </ul>	Yes
3	<b>#Business model</b> Business model: changes in the economic context, and the structure and level of future TURPE tariffs, affecting company debt in a time of large-scale investment	RTE must take care to maintain financial equilibrium and its ability to rise to the challenges of its public service mission	<ul style="list-style-type: none"> <li>• Continuous discussions with the regulator on the desired guiding principles for the TURPE tariff and the regulatory framework</li> <li>• Monitoring and forecasting at national and European level: detailed documentation of the funding requirements to be covered by the tariff</li> <li>• Explaining the investment and maintenance needs for the electricity transmission network for the next 15 years, in the ten-year network development plan (SDDR) published in 2019</li> <li>• Reinforcing decision-making processes to enhance project budget management</li> </ul>	No
4	<b>#Environment</b> Environmental risks: pollution, waste, biodiversity	Incidents may give rise to environmental emergencies that can affect the activity and employees of RTE, its customers and other third parties	<ul style="list-style-type: none"> <li>• Division in charge of CSR (corporate social responsibility) and an environmental consultation department (DCE) in the development and engineering division</li> <li>• Environmental policy and environmental management system based on ISO 14001</li> <li>• Improvement plans resulting from follow-up and renewal audits for ISO 14001 certification</li> <li>• Technical environmental policies: noise abatement, pollution abatement (PCBs (polychlorobiphenyls), oil in substations, decontamination), birdlife protection, biodiversity, management of greenhouse gas (SF<sub>6</sub>) leaks, management of vegetation in and around substations (“zero-phyto” measures and vegetation management), external commitments</li> <li>• Other measures to reduce RTE’s ecological footprint (ecodesign and biomimicry, energy efficiency in buildings, encouraging energy sufficiency in employees’ movements)</li> </ul>	Yes

(1) NFR = a non-financial risk with a significant CSR dimension. The policies and KPIs associated with these risks are detailed in part 7.1.

(2) Manuel d’amélioration sécurité entreprise, a guide to promote health and safety in the workplace.

(3) Agence nationale de la sécurité des systèmes d’information.

### 6.2.2.3 Developments in major risks between 2020 and 2021

The list of major risks now comprises 13 risks, against 15 previously.

In 2021, the risk of large-scale conventional or cyber-attacks on RTE’s information systems or vital infrastructures (#Attacks) was split into two, to separate the risk of physical attacks (#Major physical attack) from the risk of cyber-attacks (#Major cyber-attack). These two forms of attack have different levels of impact and likelihood, especially given the increase in cyber-attacks in recent years.

This change enabled RTE to separate the respective action plans for control of these risks, making them more effective.

Also, three major risks were absorbed into other existing major risks:

- the risk of opposition by society to transmission facilities (#Public opposition) is now part of the risk associated with implementation of the SDDR (#Ten-year network development plan (SDDR)), as public opposition is no longer a risk but a reality which is taken into account in infrastructure project monitoring;

- the risk of social crisis or lack of internal cohesion entailing significant media consequences (#Major social crisis) is now part of the risk related to the corporate mission statement (#Impetus & Vision). A deterioration in the social climate, whether internal and related to current transformations, or triggered by exogenous factors, will have direct consequences for implementation of the corporate mission statement. Action to control this risk, notably social dialogue, is essential to lead the company's industrial transformation to the 2025 horizon;
- the risk of a break in continuity of critical activities (#Business continuity plan) is now integrated into the following existing major risks: #Health and safety when the risk is pandemic-related, and #Major cyber-attack when the risk is information system-related.

Finally, slight changes have been made to the names or descriptions of the following risks: #Business model, #Health and safety, #Major infrastructure event, #Ten-year network development plan (SDDR), #Impetus & Vision and #European law, to make them more accurate and reflect changes in the context and the developments described above.

### 6.3 INTERNAL CONTROL

RTE's internal control system is constantly adapting, in a dynamic approach involving committed actors. It is built on:

- coordinated updates to the major/function risk mapping and the internal control standards;
- reviews of internal control systems and the results of the "function monitoring orientations", which are consolidated annually;
- the observations, recommendations and causal analyses resulting from audits.

Following on from previous years, RTE's internal control system is founded on the five components of the COSO (Committee Of Sponsoring Organizations of the Treadway Commission) framework, and the COSO principles have been integrated into the system:

- control environment: RTE has continued its policy for training and professionalisation in internal control, through external training in the fundamentals of the COSO framework for the divisions' internal control managers and officers. A self-assessment questionnaire has also been developed, to have an overview of the existing internal control system and topics not covered by the function monitoring orientations;

- risk assessment: the percentage of function monitoring orientations associated with the company's major risks and the function risks remains stable. In 2021, as in 2020, 100% of function monitoring orientations proposed have a connection with risk assessment;
- control activities: the number of function monitoring orientations has increased since 2020 (from 40 to 48). The increase mainly concerns cross-functional activities (HR, information systems, workplace health and safety, purchases). Local controls, which are the first line of business control, are carried out on a day-to-day basis and channel the most effective practices for risk management in each activity. A list of the local controls applied and their results is drawn up annually for the entity/division annual reviews;
- information and communication: actor engagement has been strengthened by a reinforced focus on the system. Leadership of the network of internal control and division managers and officers remained dynamic, even though meetings had to be held remotely due to pandemic-related rules;
- monitoring activities: in accordance with the AMF's recommendation, RTE assesses its internal control system in an annual report for the executive committee, which is presented to the Economic oversight and Audit Committee. This document also identifies areas for improvement in the following year, and insights into control of the principal activities.

### 6.4 INTERNAL AUDIT

As the third line of control, the internal audit team is in charge of periodical controls to verify that the risk control, internal control and operational business control are working correctly.

The internal audit's methodological approach is based on the International Professional Practices Framework (IPPF). The objectives and methods were confirmed by the Chairman of the Executive Board through signature of an internal audit charter that was updated in 2021.

Audit scheduling is constructed under the "audit universe" methodology to cover all of RTE's activities. Every activity is thus audited every three to five years, depending on the risk level determined by risk management and audits.

The results of internal audits assess risk controls, effectiveness of control measures, and the audited activity's capacity to meet its objectives. The principal audit conclusions are presented to the Executive

Board, which validates recommendations for improvement before they are implemented.

Recommendations are implemented through action plans by the divisions concerned. The internal audit team monitors the application of these action plans, to ensure that the risk control process is duly improved.

The Chairman of the Executive Board fixes an annual programme of audits coherent with the company's major risks, and sends it to the Economic oversight and Audit Committee. The audit and risk division is in charge of executing this programme.

## 6.5 FINANCIAL RISKS

### 6.5.1 CONTROL OF FINANCIAL RISKS

Operations on the financial markets expose RTE to a range of risks:

- interest rate risk: the risk associated with future changes in interest rates for the holder of a fixed-rate or floating-rate receivable or debt;
- liquidity risk: the risk that the funds necessary to honour commitments will not be available;
- counterparty risk: the risk for a third party that his counterparty will be unable to honour some or all of its debt or contract at the agreed time.

The general cash management policy is covered by an annual framework that lists the authorised financial instruments and sets out the rules and constraints that must be respected. This framework is defined by the company managers in charge of the finance division. It includes a list of authorised counterparties, with assigned commitment limits by amount and type of financial instrument. The general cash management policy takes account of developments on the financial markets, and has had to adapt to an environment of low and even negative interest rates.

#### — Interest rate risk

RTE is exposed to an interest rate risk on its financial indebtedness. The company's sensitivity to changes in rates, assessed on the basis of probable scenarios, is as follows:

- sensitivity of financial expenses: a change in interest rates has little effect on the financial expenses

on long-term debt (with residual maturity over one year) since 98% of the long-term gross debt bears interest at fixed rates at 31 December 2021;

- sensitivity of financial indebtedness: a 1% change in interest rates would cause an opposite change of 10.1% or approximately €1,161.9 million in the discounted (marked-to-market) value of debt at 31 December 2021.

Average maturity for the Group's debt at 31 December 2021 was 9.9 years and the average interest rate was 1.60%.

On 7 May 2021, the rating agency Standard & Poor's confirmed RTE's long-term rating of A, with a stable outlook.

#### — Liquidity risk

Low market liquidity can affect RTE's access to financing sources and thus make the cost of resources excessive.

RTE seeks to control this risk through a policy of diversifying its financing sources, by keeping up constant participation in the financial markets and seeking to preserve or improve its image and credit rating on the capital markets. RTE makes every effort to optimise the timing of its operations.

To address liquidity risks, RTE manages a short-term securities portfolio mainly comprising negotiable debt instruments for which a liquid market exists, which are rapidly realisable to meet liquidity needs. RTE also holds shares in monetary investment funds.

At 31 December 2021, the liquidities available in the very short term from RTE's syndicated credit line amounted to €1.5 billion. This €1.5 billion syndicated credit line was agreed in June 2016 for a five-year period, with two possible 1-year extensions. The first extension option was exercised in June 2017. The second was exercised in June 2018, deferring the maturity of this credit line to June 2023.

RTE also has a Negotiable European Commercial Paper programme for a maximum €1.5 billion, which it can use to meet its own liquidity needs. At 31 December 2021, the Negotiable European Commercial Paper issued amounted to €350 million.

During the second half of 2021 RTE revised the AMF-approved documentation for its Euro Medium Term Note Programme. The ceiling for this EMTN programme is €12 billion.

At 31 December 2021, neither RTE nor any of its subsidiaries was in default on any borrowing.

### — Counterparty risk

Counterparty risk is defined as the total loss that RTE would sustain on its business and market transactions if a counterparty defaulted and failed to perform its contractual obligations. The main potential counterparty risks for RTE concern cash and cash equivalents, trade receivables, supplier payables, negotiable debt instruments, short-term investments and derivative financial instruments. The cash and financing operation risk is approached through rules laid down in the annual framework, with the following main principles:

- financial transactions can only be undertaken with authorised counterparties for which quantified limits have been set;
- only agency-rated counterparties are authorised, and they must have a minimum BBB rating with at least a stable outlook;
- a limit has been set for the portion of total investments undertaken with counterparties rated BBB+ and BBB;
- sectorial diversification is required for cash investments: cash investments in any given sector (apart from the banking sector) must not exceed 30% of all short-term investments.

In 2021, RTE continued the counterparty risk management measures introduced in previous years, namely:

- oversight of the short-term investment policy to ensure it follows the cash cycle as closely as possible: this limits the level of such investments and thus the associated counterparty risk;

- a search for better-quality counterparties, to strengthen the average rating of the securities portfolio.

The department in charge of cash and financing has a financial risk control section that regularly oversees all the risks inherent to financial activities. It also verifies that RTE complies with the rules and constraints defined in the framework, through daily reporting of the principal risk indicators to the managers in charge of the finance division.

If a risk limit is exceeded, an alert procedure is set in motion, involving notification of the company managers in charge of the finance division, reporting on how the situation was handled, and where relevant, proposal of corrective action.

Following soaring prices on the electricity markets in 2021 and the court-ordered liquidation of a supplier on 2 December 2021, the Sales division, which is in charge of customer monitoring, intensified its monitoring and measurement procedures for the risk of non-payment by counterparties, particularly balance responsible entities (see Significant events, December).

### 6.5.2 ACTION AGAINST TAX AVOIDANCE

Article L. 225-102-1 of the French Commercial Code requires companies to report on the sensitivity of their position regarding prevention of tax avoidance.

Tax avoidance consists of deliberately transferring financial flows that could be taxable in the company's principal country of location to another state with more attractive tax legislation.

The team in charge of tax matters at the RTE Group makes sure that no such tax avoidance practices exist at RTE by checking all financial flows. This is facilitated by the fact that the tax team is part of the accounting department.

All taxes are paid on French national territory, and there are no financial flows in any subsidiary located in a country with favourable tax laws that could be interpreted as a source of tax avoidance.

Similarly, all financial investments (investment funds) are made by financial establishments located in France.

### 6.5.3 PREPARATION AND PROCESSING OF FINANCIAL AND ACCOUNTING INFORMATION

#### 6.5.3.1 Organisation and role of the finance division

The finance division contributes to control of RTE's activities, notably through the following missions:

##### — Performance oversight and budget reporting

- Oversight of the budget process and cycles (budget, three annual budget updates, and the medium-term plan).
- Keeping an overview of the budget process and the associated choices.
- Contributing to performance oversight, by monitoring budget resources per entity.
- Contributing to application of the budget through general performance reviews in the divisions.
- Ensuring key financial balances, notably in tariff discussions with the regulator.

The budget, the budget updates and the medium-term plan are examined by the Economic oversight and Audit Committee, and by the Supervisory Board.

##### — Accounting and Tax

- Producing the individual financial statements of RTE and certain subsidiaries, and the Group's consolidated financial statements, in compliance with the standards applicable.
- Meeting tax obligations (declarations, monitoring and settling the taxes payable by RTE).
- Providing advice to all RTE entities and subsidiaries on accounting and tax matters.
- Documenting the accounting and tax doctrine and standards, and maintaining the associated databases.
- Taking preventive action against fraud across its scope of responsibility.

##### — Finance and Cash

- Financing RTE's operations.
- Determining RTE's financing requirements.

- Managing cash investments.
- Compensating for the company's electricity losses.

#### 6.5.3.2 Preparation and control of accounting information

##### — Organisation of accounting information preparation

RTE's accounting and tax department is in charge of establishing RTE's individual financial statements, the financial statements of certain subsidiaries, and the Group's consolidated financial statements.

The individual financial statements are prepared by teams corresponding to each major component of the accounting cycle (fixed assets, purchases, sales, taxes, etc.). This organisation makes it possible to manage competences efficiently and thus ensure reliability in accounting and tax data.

The closing of the financial statements is managed by a general team which is in charge of RTE's general accounting.

For certain RTE subsidiaries, the financial statements are established by the team in charge of the relevant entities' transactional accounting.

The consolidated financial statements are established using data recorded by the general and subsidiaries team.

RTE's individual financial statements and the Group's consolidated financial statements are approved each year by the Executive Board.

They are examined every half-year by the Economic oversight and Audit Committee, and by the Supervisory Board.

##### — Control of accounting information

The Head of accounting and tax is responsible for proper operation of internal procedures which ensure reliability in the Group's accounting and tax data. He/She reports to the Chief Financial Officer.

A tax and accounting internal control team (part of the accounting and tax department) oversees the entire system of tax and accounting controls in the operational processes, and the accounting processes for preparation of the financial statements.



Through the tax and accounting internal control, the accounting and tax department contributes to improving the quality and reliability of accounting information in liaison with RTE's various functions.

Tax and accounting internal control is part of RTE's internal control procedures described above in 6.3 Internal control.

The accounting and tax department conducts "soft closing" procedures to facilitate the audits of the financial statements at 30 June and 31 December. These procedures are part of the annual audit process applied by RTE's statutory auditors.

### 6.5.3.3 Control of financial information

For RTE's internal control policy, each entity in the finance division prepares an internal control supervision plan relating to its risk analysis process. The risk control unit verifies the adequacy of the systems in place.

For example, a control system is used to make sure that no user has authorisations that are incompatible with proper segregation of duties; data analysis tools are used for certain business processes (mainly tax, payroll, expense reports and purchases) to identify any potential anomalies and correct them where relevant.

Analyses are also conducted at least annually with the divisions to identify and address the causes of any variances between real and forecast figures for major income and expense items, in order to have constant confirmation of the reliability of financial budget estimates.

## 6.6 INSURANCE

RTE covers its insurable risks by insurance programmes that are subscribed through the intermediary of consultant brokers, and provided by insurers with a rating at least equivalent to RTE's financial rating.

RTE's insurance department, which is part of the audit and risk division, identifies the risks that may be insurable and together with its brokers determines the limits, excesses and exclusions inherent to all insurance contracts.

The principal insurance policies subscribed cover the following risks:

- damage to property;
- equipment storage and transit;
- civil liability;
- damage to biodiversity;
- liability of key executives and management;
- aeronautical civil liability;
- damage to certain aircraft (the Airtelis fleet and drones);
- individual accidents and repatriation assistance for personnel on business assignments outside France.

These policies also cover RTE's subsidiaries.

### — Insurance of major projects

Dedicated insurance programmes may be used during the construction phase of major infrastructure projects, particularly connections for offshore wind farms and network interconnections. These dedicated programmes are intended to finance repair work in the event of significant damage to facilities under construction, and also to cover the financial consequences of any civil liability claims against RTE and its contractors arising in connection with such work.

RTE prioritises insurance solutions which it subscribes on its own behalf and on behalf of all participants in the project.

For most major projects, the typical insurance cover subscribed by RTE concerns comprehensive insurance for worksites (including assembly, testing and transport); civil liability insurance for the project manager and for the worksite; and civil liability insurance relating to environmental risks and damage to biodiversity.

## 6.7 ETHICS AND COMPLIANCE

Ever since it was first formed, RTE has stressed the ethical obligations inherent to performance of its public service missions as manager of a vital infrastructure open to third-party access. In 2012, the company instigated action for ethical purchasing and today, more generally, RTE meets many "compliance" obligations.

RTE is particularly attentive to compliance with the legal framework applicable to the company. Its legal division regularly provides support for the national

and regional entities, keeping them abreast of changes in the laws and regulations, and advising on their application.

The role of compliance obligations in corporate life has increased in recent years, and companies now build on ethical values which they promote to their employees and to external stakeholders.

For a clearer overview of compliance topics and to prepare better for the possibility of inspections by the regulatory authorities, which are very rigorous, RTE decided in 2021 to set up a new ethics and compliance division which will be operational from 1 January 2022.

### **6.7.1 INDEPENDENCE AND NEUTRALITY**

RTE was founded in 2000, in application of the first European energy package, on the principles applicable to an infrastructure operator: independence, non-discrimination, confidentiality and transparency. These principles formed the company's ethical basis. In 2005 (the second energy package), RTE developed a code of conduct constructed on the same principles, then in 2011 (the third energy package) it appointed a general compliance officer whose job is to ensure respect of RTE's independence and the code of conduct.

### **6.7.2 ETHICS IN PURCHASING**

With its status as a public service company subject to public procurement rules, RTE must show exemplary behaviour. In 2012, it set up a code of ethical purchasing, notably intended to guarantee objectivity and independent judgement by all members of the company, and impartiality in relations with suppliers. This code of ethical purchasing practices is presented to every new arrival at the purchasing division, so that it will be applied to all actors in the company's purchasing process. The post of purchasing ethics officer has existed since 2012, and since 2018 the purchasing ethics officer has also exercised the role of mediator for RTE's suppliers. No request for mediation was received in 2021.

### **6.7.3 PROTECTION OF PERSONAL DATA**

Right from the design stage of applications that use personal data, RTE processes such data in compliance with all the applicable regulations, particularly the principles of article 5 of the general data protection regulation (GDPR): lawfulness, transparency and data minimisation. RTE also guarantees security of personal data through appropriate technical and organisational measures.

Finally, in accordance with the GDPR, RTE documents all processing of personal data in a register that may be made available on request to France's data protection agency CNIL.

RTE mobilises its employees so that every individual is fully informed to apply this regulation, which is founded on respect of individual liberties. A data protection officer (DPO) was appointed in May 2018 to oversee implementation of the GDPR and raise awareness of managers and their teams who have to process personal data.

After a diagnosis phase in 2018, a GDPR compliance plan was begun in 2019, and six continuous improvement projects were launched: leadership of the GDPR liaison officer network, consolidation of the register of processes and related impact analyses, leading change with the support of the business divisions and support functions, improving the management of documentary assets, making subcontracting agreements secure, and establishing secure GDPR procedures (such as managing misuse of personal data).

RTE has made progress on various dimensions of these important projects. The dynamic launched when the GDPR took effect is now consolidated through prioritisation of actions recommended by the DPO in 2021, by:

- distributing RTE's policy for protecting internal personal data to all employees;
- increasing the involvement of all the data processing managers, who have received delegations of power under French data protection laws from the Chairman of the Executive Board;

- aligning these delegations of power with RTE's new organisation, giving priority to the divisions that handle sensitive data such as health data, or very personal data such as financial data;
- promoting the consideration of personal data from the initial design phase ("privacy by design"), and as early as possible in purchase transactions, with systematic inclusion of a GDPR contractual appendix for every order placed;
- introducing a collaborative internal system of documentation on GDPR compliance;
- continuing to raise RTE employees' awareness of the GDPR, through measures that include e-learning modules, circulation of a newsletter, and publicising internal policies and procedures.
- illustration of the anti-corruption code of conduct through handbooks, beginning with a guide concerning gifts and invitations;
- distribution of information videos for all employees: the first, on "preventing corruption", was put online in September 2021;
- raising the profile of the programme both internally and on RTE's institutional website, and consolidation of its organisation through the network of anticorruption compliance officers;
- further incorporation of anticorruption measures into the risk procedures and policies, by the anti-corruption compliance function's participation in cross-functional committees and work groups.

#### 6.7.4 ANTI-CORRUPTION COMPLIANCE

To comply with the eight requirements set out in article 17 of France's "Sapin 2" law, an "anti-corruption code of conduct" and a procedure for collecting reports of concerns came into force in early 2019. These documents were added to RTE's internal regulations after approval by the employee representative bodies. Targeted awareness-raising campaigns were run for employees with the greatest exposure to risk, and an online course was set up. An anti-corruption compliance officer was appointed in November 2019.

RTE continued in 2021 to consolidate and reinforce the anti-corruption compliance programme that was launched in late 2019 at the instigation of the company's Executive Board.

This drive for improvement was initially reflected in revision of the risk mapping for bribery and corruption risks affecting RTE and its subsidiaries, which was started in 2020 and finalised in 2021. The mapping method and the risks identified were approved by the Executive Board, which oversees implementation of the associated action plan by the divisions concerned.

RTE continued to work on its anticorruption compliance programme in 2021, in line with the updated risk mapping, involving:

- optimisation and adjustment of procedures for assessing the integrity of third parties,
- targeted awareness-raising campaigns for employees with the greatest exposure to risk, for example through the "ethics and suppliers" forums held in each of RTE's seven regions and at national level;

#### 6.7.5 DUTY OF VIGILANCE

In compliance with article L. 225-102-3 of the French Commercial Code, introduced by the first article of the law on the duty of vigilance, RTE publishes its vigilance plan in this management report (see next section).

In 2021, RTE began work to more closely coordinate matters relating to the "Sapin 2" and "duty of vigilance" laws. This will continue in 2022 in order to benefit from synergies between the two, particularly for assessing third party integrity and receiving reports of concerns.

#### 6.7.6 WHISTLEBLOWING PROCEDURE

The whistleblowing procedure exists not only for reports of bribery and corruption, in application of article 17 of the "Sapin 2" law, but also for reports of crimes and other serious misconduct covered in article 6 of the same law.

RTE places particular emphasis on prevention of discrimination, harassment and sexist behaviour, which are the subjects of three specific articles in the company's internal regulations. The whistleblowing procedure complements the system for reporting psychosocial risks specific to RTE, which was set up as a preventive measure and involves a network of identified local officers.

RTE's whistleblowing procedure was incorporated into the company's internal regulations after approval by the employee representation bodies, and meets the requirements of decree 2017-564 of 19 April 2017 concerning procedures for reporting concerns in public-sector or private entities and government administrations.

RTE continued internal communication campaigns in 2021 to promote whistleblowing; in particular, the banner announcement at the top of the “RTE&Nous” intranet pages carries a link to the page about the whistleblowing procedure.

The company’s online whistleblowing platform has been operational since 2019, and from 2021 it is explicitly open to reports of matters relating to the duty of vigilance (human rights and fundamental freedoms, health and safety, serious environmental harm). This platform can be used by non-RTE parties: it is mentioned on RTE’s institutional website on the “responsible enterprise and duty of care” page<sup>(1)</sup>.

## 6.8 VIGILANCE PLAN

RTE’s vigilance plan is drawn up in compliance with article L. 225-102-4 of the French Commercial Code, which derives from law 2017-399 of 27 March 2017 on the duty of vigilance by parent companies and outsourcing firms. This plan is implemented, publicly disclosed and included in the management report.

The plan includes measures intended to identify risks of, and prevent, serious breaches of human rights and fundamental freedoms, or harm to the health and safety of individuals or to the environment. It covers both RTE’s own activities and the activities of its suppliers.

RTE’s vigilance plan is developed by a Steering committee consisting of representatives of the divisions concerned at RTE.

Every year, RTE updates a specific analysis conducted to identify and assess risks across the consolidated scope of RTE and its suppliers. The risks are rated 1 to 4 on three parameters measuring their likelihood of occurrence, the scale of the consequences (impact) if they do occur, and the degree to which they are controllable by RTE. This leads to the following risk hierarchy:

1. Safety for employees (the human factor) and suppliers
2. Environment and climate

For 2022, RTE intends to involve stakeholders in the updating work on the vigilance plan.

### 6.8.1 VIGILANCE MEASURES FOR RTE’S ACTIVITIES

The vigilance measures applied by RTE in are described in section 7 on RTE’s non-financial performance (employee safety, the environment, climate change, etc.).

The effectiveness of the action taken is assessed at least annually by key performance indicators.

### 6.8.2 VIGILANCE MEASURES FOR SUPPLIERS’ ACTIVITIES

In 2021, purchases by RTE (excluding subsidiaries, system services and purchases of electricity to cover network losses) reached €1,867 million and concerned around 9,000 suppliers.

The vigilance measures applied by RTE in respect of suppliers are among the commitments made by the company in its purchasing policy. Those commitments were given official recognition in January 2019 when RTE obtained the “Responsible supplier relations and purchasing” label, awarded by the French corporate mediation service.

#### 6.8.2.1 Risk mapping in the purchasing function

The purchasing function’s risk analysis includes an appendix dedicated to the three risk areas identified in the French “duty of vigilance” law: health and safety, the environment, human rights and fundamental freedoms. The 2021 analysis shows that some of the most pressing risks relate to safety, particularly the electricity risk. Concerning the environment, the most sensitive risks concern adverse effects on biodiversity and the climate, and exhaustion of resources. Particular vigilance is exercised to detect any risk of supplier behaviour that does not respect human rights and fundamental freedoms.

(1) <https://www.rte-france.com/en/rte-in-a-nutshell/our-commitments/responsible-enterprise-and-duty-care>

### 6.8.2.2 Risk mitigation action in 2021, indicators and results

2021 continued to be affected by the Covid-19 crisis, and RTE took various steps to support suppliers. The exceptional measure of settling invoices immediately on reception was extended to the first quarter of the year.

#### Health and safety

Type of risk	Risk mitigation action	Indicators	Results in 2021 <sup>(1)</sup>
<b>Health and safety risk</b>	Introduction of a pass for access to RTE's installations (the High-Voltage Pass), compulsory for all suppliers working on RTE's worksites. This pass is issued after in-person training concerning specific site risks, validated by successful completion of a questionnaire.	Number of High-Voltage Passes currently valid, as per RTE's database	15,460 High-Voltage Passes
<b>Health and safety risk</b>	<ul style="list-style-type: none"> <li>→ Signature of RTE's Preventive Measures Charter by more than 40 of the company's works suppliers, and organisation of safety-themed meetings between RTE's management and its principal suppliers</li> <li>→ Rollout of RTE's new policy for health and safety and quality of life in the workplace, reaffirming safety as a priority for both RTE and its service providers</li> </ul>	Annual number of safety-themed meetings with suppliers, involving RTE management and the principal suppliers	22 safety meetings held
<b>Health and safety risk</b>	On-site supplier audits to verify compliance with contractual commitments, particularly concerning safety <i>NB: The volume of audits was affected by the Covid-19 crisis.</i>	Annual number of audits performed and safety deficiencies observed	<ul style="list-style-type: none"> <li>• 41 audits performed</li> <li>• 68 safety deficiencies observed (including 16 points of non-compliance)</li> </ul>
<b>Health and safety risk</b>	Contracts are awarded on a best-bid basis, referring to selected safety criteria weighted according to the key features of the contract	Annual percentage of RTE contracts awarded on a best-bid basis by reference to safety criteria	33% <sup>(2)</sup>

(1) Data as at 31 October 2021.

(2) The annual percentage of contracts awarded on a best-bid basis by reference to safety or environmental criteria depends on the features of the contracts, which differ according to the category of purchases: the safety criteria relate to site work more than intellectual services, for example. As a result this percentage is likely to vary from one year to the next.

#### Ethics, human rights and fundamental freedoms

Type of risk	Risk mitigation action	Indicators	Results in 2021 <sup>(3)</sup>
<b>Ethics and compliance risk</b>	Application of a system to assess suppliers' ethical integrity (anti-corruption, duty of vigilance, other integrity matters).	<ul style="list-style-type: none"> <li>• Number of supplier integrity assessments conducted</li> <li>• Number of risk situations identified during these assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Since the system was introduced in mid-2019, 414 assessments have been conducted (17 in 2019, 273 in 2020 and 124 in 2021)</li> <li>• 5 risk situations were identified and addressed in 2021</li> </ul>
<b>Ethics and compliance risk</b>	For implementation of policies such as RTE's anti-corruption code of conduct, "ethics and suppliers" forums are run by the Purchasing division to share the relevant rules and good practices at RTE, with insights gained from suppliers' experiences	Number of forums held	8 forums were held in several locations across France

(3) Data as at 31 October 2021.

## Environment

Type of risk	Risk mitigation action	Indicators	Results in 2021 <sup>(4)</sup>
<b>Environmental risk</b>	Development of eco-sites by suppliers for projects with priority environmental challenges, to improve management and recycling of waste	Number of eco-sites	16 eco-sites in construction or completed in 2021
<b>Environmental risk</b>	Sharing biodiversity challenges with the principal siteworks suppliers and defining resources to protect biodiversity (this action is also part of the stated aims of the Act4nature France initiative). → 3 themes require closer attention: 1) awareness-raising and training; 2) improving the Avoid-Mitigate-Offset sequence; 3) improving the communication of data on biodiversity protection to firms participating in the same project.	Number of workshops held with suppliers	2 workshops
<b>Environmental risk</b>	On-site supplier audits to verify compliance with contractual commitments, particularly on environmental matters <i>NB: The volume of audits was affected by the Covid-19 crisis.</i>	Annual number of audits performed and a typology of deficiencies observed (environmental matters, etc).	<ul style="list-style-type: none"> <li>• 41 audits performed, including 6 audits of waste management contractors</li> <li>• 53 environmental deficiencies noted (including 5 points of non-compliance)</li> </ul>
<b>Environmental risk</b>	Contracts are awarded on a best-bid basis, referring to selected environmental criteria weighted according to the key features of the contract	Annual percentage of RTE contracts awarded on a best-bid basis by reference to environmental criteria	43%
<b>Environmental risk</b>	Rollout of required carbon reporting for every works supplier when their project is completed, to reduce their carbon footprint	Number of current contracts including carbon reporting requirements for worksites, among RTE's 3 main master contracts (1- Studies and Substation work, 2- Overhead power lines and 3-Underground power lines)	1 <sup>st</sup> framework contract covered (Studies and Substation work – 655 M€). As a trial, with the aim of extending carbon reporting to RTE's 3 main master contracts for works (Studies and Substation work, Overhead power lines, and Underground power lines).
<b>Environmental risk</b>	Introduction of a "Raw Materials Pass" accreditation system, being trialled in a few contracts: identification of the materials in the product, including the concept of recycled raw materials, with the aim of using such materials more	Annual number of current or notified trial contracts involving a "Raw Materials Pass"	9 contracts

(4) Data as at 31 October 2021.

### 6.8.2.3 Evaluation of measures taken by suppliers

After completion of every order, suppliers are evaluated on the following four criteria: quality/timing, safety, environment, and innovation. This evaluation is complemented by RTE's regular supplier audits. The results of the evaluation, which are shared with the supplier at least annually, form a basis for requesting corrective action and collecting feedback that is taken into consideration when selecting suppliers for future contracts.

### 6.8.2.4 RTE's whistleblowing and alert procedure

The secure whistleblowing platform was set up by an external contractor and has been operational since January 2019. It is accessible to all the company's employees, and also to third parties<sup>(1)</sup>.

RTE's whistleblowing procedure, which was incorporated into the company's internal regulations following approval by the employee representation bodies, meets the requirements of decree 2017-564 of 19 April 2017 concerning procedures for reporting concerns in public-sector or private entities and government administrations.

In matters of human rights, the whistleblowing procedure complements the system for reporting psychosocial risks specific to RTE, which was set up as a preventive measure and involves a network of identified local officers.

(1) <https://www.rte-france.com/en/rte-in-a-nutshell/our-commitments/responsible-enterprise-and-duty-care>





**7.**

**RTE group's  
non-financial  
performance**

## 7.1 NON-FINANCIAL DIMENSION OF MAJOR RISKS, PRINCIPAL CONTROL MEASURES AND RESULTS ON KEY INDICATORS

RTE is exposed to risks of a social, societal and environmental nature, such as the following:

- a power cut on the high-voltage and very high-voltage electricity network could affect a fairly wide area, for example a large conglomeration or even a county, with repercussions for the local area and customers that could have a significant local social and environmental impact;
- getting ready for the energy and ecological transition requires timely, successful completion of network connection, upgrading and development projects. This means the environment must be taken into consideration, and many local consultation procedures will also be necessary, entailing interaction with third parties as and when relevant;
- the control measures taken in preparation for climate change aim to strengthen resilience in both the network and the company, in order to limit the social, societal and environmental consequences of incidents that may affect the network. Action against climate change and to reduce emissions is taken into consideration in the associated risks.

RTE's financial and non-financial performance is directly linked to maintaining continuous service in the short and medium term, integrating the new energy mix that will support achievement of carbon neutrality in France by 2050, and adapting the network to ensure maximum resilience against unpredictable weather events.

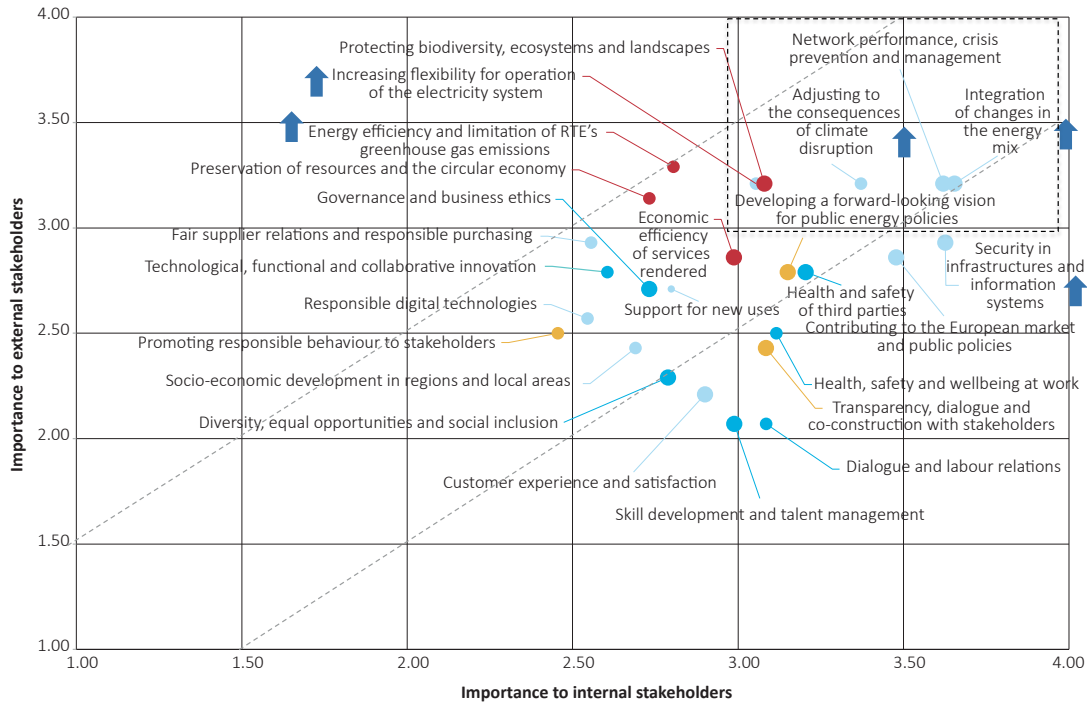
### 7.1.1 METHODOLOGY FOR IDENTIFYING NON-FINANCIAL RISKS

RTE updated its materiality analysis<sup>(1)</sup> in 2021.

The point of this exercise was to update and put into perspective the priorities of the CSR strategy, identifying the challenges considered most important for the medium term. This underpins dialogue with stakeholders, and enhances the analysis of risks and opportunities. Both internally and externally, the stakeholders consulted identified the challenges they believed would become more important over a 3-year horizon. The materiality matrix thus cross-combines internal and external perceptions, assessing the impact level of the challenges by adding the internal assessment of RTE's performance on those challenges:

(1) Materiality indicates the importance of sustainable development challenges, i.e. their positive or negative influence on a company's business activities (its ability to create, preserve and redistribute value) and the activities of its stakeholders.

## General materiality matrix



INFORMING

OPERATING

OPTIMISING

FUNDAMENTALS

3-YEAR PROSPECTS

### Performance level

Low  $1 < x < 2$

Medium  $2 < x < 2.5$

High  $2.5 < x$

From this matrix, an inter-function steering committee at RTE selected 13 key challenges that structure RTE's CSR policy for 2022-2025.



### Network performance, crisis prevention and management in France and Europe

Ensuring full access and constant reliability in the network, and maintaining security for infrastructures and information systems in the face of external threats.



### Increasing flexibility for operation of the electricity system

Offering a flexible service for consumption and transit, controlling demand and adapting the network to changing lifestyles.



### Adaptation and support for the energy transition

Integrating the changing energy mix into the network, particularly renewable energies and low-carbon energies, and supporting new uses and demands from customers and regions.



### Adjusting to the consequences of climate disruption

Strengthening infrastructure resilience and making working practices and conditions safe and secure against the effects of climate disruption.



### Responsible purchasing and sustainable local action

Contributing to socio-economic development in the areas where RTE operates, by maximising the social and environmental impacts of the company's purchases and building sustainable relations with suppliers in a partnership dynamic.



### Transparency, dialogue and co-construction with stakeholders

Setting an example through the ability to maintain high transparency and dialogue with stakeholders. Guaranteeing accessibility to information and carrying out consultations on the company's projects.



### Developing a forward-looking vision for French and European public energy policies

Sharing RTE's expertise and knowledge to inform the electricity landscape, by making available data, studies and prospective planning documents.



### Fighting climate change and protecting biodiversity and landscapes

Pursuing the company's strategic ambition while ensuring good environmental performance and integration of operations into the landscape.



### Preservation of resources and the circular economy

Optimising the use of resources, developing eco-design, the full lifecycle approach and biomimicry in design and management of facilities.



#### Skill development and talent management

Anticipating transformation in the company's activities; supporting development of human capital and the competence and talents of employees, suppliers and partners.



#### Health, safety and wellbeing of stakeholders

Protecting health and safety and developing quality of life at work for the company's employees, suppliers, and all third parties.



#### Governance and business ethics

Introducing policies and mechanisms to promote ethical behaviour in dealings with third parties and more generally in the company's practices and governance.



#### Diversity, equal opportunities and inclusion

Maintaining the right conditions to promote diversity, inclusion and equal opportunities both inside the company and in the choice of partners.

### 7.1.2 NON-FINANCIAL RISKS

The major risks were re-examined in view of the CSR challenges relating to:

- stakeholder demands as identified in the materiality analysis;
- the United Nations' Sustainable Development Goals (see below) in which RTE considers it has a role to play (more details are given below);
- and social, environmental and societal matters mentioned in the French decree on disclosure of non-financial information in the management report (decree 2017-1265, article 2).

#### Convergence between major risks and non-financial risks

The above analyses showed that the majority of RTE's major risks are considered to have crucial non-financial impacts. The following table presents the risks concerned, their non-financial dimension, the related policies and the results on key indicators.

### Non-financial dimension of major risks, related policies and results on key indicators

Name of risk	Non-financial dimension	Related policies	
<b>#Safety</b> Serious failings in safety for employees, contractors and third parties	RTE is strongly mobilised to limit the risks of accidents for its own employees, its contractors' employees, and the people living near its facilities.	Policy for health, safety and quality of life at work	
<b>#Major operating incident</b> Incident affecting the electricity network that could cause a blackout	<p>Many risk factors could cause extensive power outages in the electricity network (cascading blackout, collapse of the voltage plan, uncontrolled drop in frequency, loss of synchronism, etc.). Given the protective and defensive measures taken by RTE, the number of major events remains small and their impact limited.</p> <p>In general, a power cut on the high-voltage and very high-voltage electricity network could affect a fairly wide area, for example a large conglomeration or even a county, with repercussions for the local area, customers and economic activity, and potentially social and environmental impacts, for example disrupting business development. At certain high-risk sites, power cuts could have potentially serious consequences for the environment (ICPE<sup>(1)</sup> sites, classified for environmental protection purposes and "Seveso" sites) or for human safety (e.g. hospitals).</p>	Operating and Development Doctrines Market rules/ Technical documentation standards Electricity quality policy	
<b>#Major physical attack</b> Large-scale physical attacks on RTE's vital infrastructures	A deliberate physical attack on RTE's infrastructure can cause damage that could lead to a major operating incident on a small or large scale, with the economic, social and environmental consequences mentioned in the risk #Major operating incident. It could also involve risks to the safety of RTE personnel and third parties.	Security policy	
<b>#Major cyber-attack</b> Large-scale cyber-attacks on RTE's information systems that have a major impact on continuity of critical activities	A cyber-attack could undermine the company's operations, or in the less likely scenario of an orchestrated attack on the operating information system, lead to a major operating incident on a small or large scale, with the economic, social and environmental consequences mentioned in the risk #Major operating incident.	Information System Security Policy	
<b>#Impetus &amp; Vision</b> Inability (including for HR reasons) to make the industrial transformation set out in the "Impetus & Vision" corporate mission statement by 2025	<p>The ambition of the Impetus &amp; Vision corporate mission statement is to conduct all the changes necessary at RTE by 2025 to support the conversions required by the energy, technological and digital transition, and by new demands from customers and local areas. RTE must successfully achieve industrial transformation while guaranteeing employability for its personnel and promoting a diversity of profiles at this time of considerable change in its functions.</p> <p>This risk has a potentially substantial social impact, as it concerns the preservation and development of the skills of all the company's employees.</p>	"Impetus & Vision" corporate mission statement Mobility and talent management policy Agreement on equality at work Agreement on social dialogue and employee representation	

	Indicators	2020	2021	Target	Comments
	Accident frequency rate	6.99	7.6	7.1 (2022 target) 2021 target published in the management report: 3.5	The change of target is due to a change in the scope for calculating the indicator in 2021.
	Equivalent outage time excluding unusual events	3'04"	4'05'	<or = 2'48" (TURPE 6)	<p>The equivalent outage time excluding unusual events totalled 4 minutes and 5 seconds in 2021, well above the target of 2 minutes 48 seconds.</p> <p>In August one customer was cut off for more than 3 days following material damage: this single incident accounts for 3 minutes and 6 seconds of the 2021 equivalent outage time. Only one event was classified as an unusual event in 2021, involving 4 seconds of equivalent outage time: the forest fires in the Aude region of south France in July, which put out the dual 400 kV Baixas Gaudière line and led to decoupling of the Iberian peninsula, and load shedding.</p> <p>The total equivalent outage time including unusual events thus totalled 4 minutes and 9 seconds.</p>
	Number of events that exceed the Large-Scale Incident threshold	1	1 situation for which RTE was responsible (duration of 45 min)	0 (2022 target) 2021 target published in the management report: 0 situations for which RTE is responsible; 2 situations for which external parties are responsible	The number of incident situations is stabilising at a low level. The observed decrease confirms the effectiveness of action undertaken in 2020 to handle events not covered by standard procedures, which related to limitations on downward modulation of nuclear power plants.
	Not disclosed				
	Percentage of employees trained in cybersecurity	41%	56.24% (cumulative total since the launch)	80% (2022 target) 2021 target published in the management report: 80%	Although it rose in 2021, the percentage of employees who have followed the e-learning course remains low and the 2021 year-end target was not met. However, a number of awareness-raising campaigns took place in 2021 to make employees sensitive to the risks of cyber-attack (e.g. a campaign involving training exercises for all employees on handling risks contained in malicious emails).
	Percentage of employees who benefited from a professional development measure	89.48%	87.54%	Not disclosed 2021 target published in the management report: Not disclosed	
	Percentage of women on management committees	23%	25%	25% (2022 target) Identical to the 2021 target	

Name of risk	Non-financial dimension	Related policies	
<b>#Ten-year network development plan (SDDR)</b> Inability to upgrade and adapt the ageing onshore network and develop the offshore network in line with the time objectives set out in the SDDR	<p>To rise to the challenge of the energy and ecological transition, RTE must succeed in its five industrial dimensions: connections, upgrades, development and digitisation of the network, and reinforcement of interconnections. The SDDR must not be implemented to the detriment of the environment, and many local consultation procedures will be required. RTE's non-financial performance is linked to its ability to meet a large number of societal and environmental demands.</p> <p>Faster connection of renewable energies will meet the needs of the energy transition towards a carbon-free society.</p> <p>RTE develops and maintains its network infrastructure throughout France over time periods spanning several decades. Consulting stakeholders makes it possible to take account of their expressed needs, minimises the risk of delay in administrative procedures, and preserves the economic balance of a project without harming the environment. The quality of dialogue with stakeholders is a crucial factor for the network extensions that will be necessary to connect new generation sites (particularly for renewable energies) and for the economic development of new consumers.</p>	<p>Ten-year network development plan (SDDR)</p> <p>Network development, upgrading and adaptation policies</p>	
<b>#Legal risk</b> Non-compliance with the law	<p>Some regulatory requirements, particularly concerning respect of the environment (Environmental Code), anti-fraud and anti-corruption (the "Sapin 2" law), and protection of private data (the GDPR) contribute to RTE's non-financial performance. Failure to comply with these laws and regulations could have major social and societal consequences.</p> <p>Respect of human rights is also one of the key points covered by RTE both in its internal practices and in relations with customers and suppliers (the vigilance plan).</p>	<p>Environmental policy; ethics and GDPR</p>	
<b># Major infrastructure event</b> Contingent event with a major impact on the network infrastructure or other company assets	<p>An exceptional climate event (gales, flooding, etc.) or serious high-impact damage to the infrastructure can lead to a major operating incident on a small or large scale, with the economic, social and environmental consequences mentioned in the risk #Major operating incident. Well-prepared teams, maintenance and network upgrading provide protection and keep the duration of infrastructure problems down.</p>	<p>RTE's crisis management procedure (ORTEC)</p> <p>Business policy</p> <p>Electricity Quality policy</p>	
<b>#Climate</b> Inability to adapt the infrastructure, activities and organisation to the consequences of climate change	<p>RTE's financial and non-financial performance is directly related to the infrastructure's resilience against unpredictable weather events (essentially heatwaves and floods). Global warming will make it necessary to strengthen this resilience in order to limit the social, societal and environmental consequences of incidents that may affect the network.</p>	<p>Stormproofing policy</p> <p>Resilience project</p>	



	Indicators	2020	2021	Target	Comments
	Renewable energy power connected to the network	50,292.3 MW (at 30/11)	53,378 MW (at 30/11)	Not disclosed  <i>2021 target published in the management report: Not disclosed</i>	The increase is explained by a substantial rise in connected solar power capacity (+24% and +32% respectively in the HTB and HTA high-voltage networks), and a rise in connected wind power capacity (+9.4% and +6.2% respectively in the HTB and HTA networks).
	Area of land made biodiversity-friendly	1,235 ha	1,439 ha	2,300 hectares (by end 2024)  <i>2021 target published in the management report: +250 hectares</i>	Biodiversity-friendly developments continued: +204 hectares concerned in 2021 The target for this indicator was reviewed and is no longer defined per year. Biodiversity-friendly developments will be rolled out progressively until 2024.
	Percentage of purchases from SMEs	20%	€414 million, or 21%	€410 million (2022) €450 million (2025)  <i>Targets previously published in the management report:</i>  23% (2021)  25% (2025)	The target of 23% of purchases with SMEs in 2021 was not attained because there was a general increase in the value of RTE's purchases. This was largely attributable to the 10-year network development plan (SDDR) which will be reinforced in future years and does not always translate into proportional growth in purchases from SMEs. For this reason the target was reviewed this year and is now expressed in terms of value rather than a percentage.
	Recovery rate for hazardous waste tracking documents	96.7%	95.93%	100% (2022) identical to 2021 target 40% (2022)	2021 was the start of a new 5-year cycle for assessment of sites' regulatory compliance. The 20% target for this year was met.
	Percentage of sites subjected to an environmental regulation compliance assessment	99.9%	25.5%	100% (2025) 2021 target published in the management report: 20% of sites in a 5-year cycle Not disclosed <i>Not previously disclosed in the management report</i>	
	Percentage of employees trained in the "Sapin 2" and GDPR laws	Sapin: 55%  GDPR: 38%	Sapin: 65.20% (cumulative total since the launch)  GDPR: 51.54%	80% (2022) <i>Not previously disclosed in the management report</i>	
	Equivalent outage time excluding unusual events	See above	See above	See above	See above
	Customer satisfaction score	87%	85%	Not disclosed  Not previously disclosed in the management report	
	Equivalent outage time (including outages caused by weather events (undistributed energy) <sup>(1)</sup>	32'' (16%)	3.8''	Not disclosed <i>Not previously disclosed in the management report</i>	This indicator is significantly lower than in 2020, demonstrating good network resilience against the weather events of the year.

(1) Volume of undistributed energy – see appendix for more details.

Name of risk	Non-financial dimension	Related policies	
<b>#Environment</b> Environmental risks: pollution, waste, biodiversity	By nature, this risk encompasses a direct environmental risk, and control of that risk contributes to RTE's non-financial performance.	Environmental policy	

## 7.2 FIGHTING CLIMATE CHANGE, PROTECTING BIODIVERSITY AND RESOURCES

### 7.2.1 ACTION AGAINST CLIMATE CHANGE

Fighting climate change and adjusting to its effects are a priority for public and private actors worldwide. The Paris agreement has set ambitious objectives to manage the ecological transition required to achieve carbon neutrality by 2050. In France these objectives are expressed in the national low-carbon

strategy (SNBC). The European Union has increased its ambitions further with the Green Deal, which is currently being adapted into proposed directives for the "Fit for 55" package: see 4. Significant events.

As network operator, RTE is also taking steps to improve its own industrial footprint.

**RTE continued its efforts in 2021 to mitigate the impact of its emissions and adapt the company's activities to climate change.**

	Indicators	2020	2021	Target	Comments
	Area of land made biodiversity-friendly	See above	See above	See above	See above
	Percentage of "zero-phyto" sites	100% of new substations  20% of existing substations (completion rate)	100% of new substations  24% of existing substations (completion rate)	100% of new substations  Conversion of a hundred substations by the end of 2023, covering all sites subject to regulatory constraints. <i>2021 target published in the management report: 100% of existing substations</i>	Progress remains fairly limited: very little conversion work could be done in 2021, principally because of cost caps set by the regulator in February 2021, which drastically reduced this work on substations. The target was reviewed accordingly and is now expressed as a number rather than a percentage, due to the lower number of sites concerned.
	Volume of SF <sub>6</sub> leaks	5.1 tonnes	4.62 tonnes	4.5 tonnes by 2025 <i>2021 target published in the management report: 4.5 tonnes; &lt;4 in 2024)</i>	
	Volume of oil leaks	46.76 <sup>(3)</sup> m <sup>3</sup> (Nov. 2019-Nov. 2020)	58.12 m <sup>3</sup> (Nov. 2020-Nov. 2021)	Not disclosed	The amount of leaks observed in 2021 is essentially attributable to two events in Marseille, which together accounted for 43 m <sup>3</sup> of the year's leaks.
	CO <sub>2</sub> emissions from electricity losses and SF <sub>6</sub> discharge (scopes 1, 2 and 3)		717.8 kt	Not disclosed	A very good result for SF <sub>6</sub> and for the year, with electricity losses comparable to 2019 (pre-crisis levels, as the volume of leaks in 2020 was significantly affected by the Covid-19 pandemic). In 2021 CO <sub>2</sub> emissions from SF <sub>6</sub> leaks and electricity losses accounted for 97% of all RTE's scope 1 and scope 2 emissions.
	Emissions for full scopes 1 and 2 ( <i>new</i> )	703 kt	578.4 kt (for the year December 2020-November 2021)		
	Waste recycling rate (total)	90.4%	77.60%	>75%	RTE's high waste recycling rate in 2020 resulted from use of a typology of sites with high recycling potential.

(2) Volume of undistributed energy – see appendix for more details.

(3) Final volume for the full year 2020 = 19.78 m<sup>3</sup>. The exact volume of oil recovered from the principal accidental event of 2020 was not known at the time of publication of the previous Management Report. The volume of oil recovered (by an operation in early 2021) was substantially higher than the figure estimated last year, and therefore the volume of oil not recovered from substations has been reduced from 44.4 m<sup>3</sup> to 17.4 m<sup>3</sup>.

### 7.2.1.1 Reducing greenhouse gas emissions (GHG)

In 2021, RTE's GHG indicator, which represents the CO<sub>2</sub> equivalent of scopes 1 and 2, was 578 ktCO<sub>2</sub>eq.

RTE continued its "low-carbon trajectories" project in 2021, to calculate medium and long-term trajectories for RTE's own emissions. The trajectories for electricity consumption including electricity losses will be based on scenarios from the "Energy Pathways to 2050".

#### 7.2.1.1.1 Energy efficiency action plans for electricity losses

Some of the electricity carried by the transmission network is lost between the production site and the place of consumption due to the "Joule" effect which converts some of the electricity transiting through a conductor (overhead cable, underground link) into heat. In 2021 these losses totalled 11,176 GWh, or 2.282% of total injections (from production sites and imports).

The GHG impact of these electricity losses results from the generation of extra electricity to compensate. The emissions related to these losses are calculated as the product of two factors: the

quantity of losses, and the emissions associated with production of 1 kWh of electricity in France (the emission factor used in the ecological transition agency ADEME's Base Carbone database).

In 2021, electricity losses from the network thus led to emissions of 609 ktCO<sub>2</sub>eq (455 in scope 1 and 154,000 in scope 3).

The factors determining the scale of electricity losses (consumption level and location, generation plans, international transit, etc.), are beyond RTE's control, and as a result RTE does not have sufficient levers to manage the rate of losses from the transmission network. Nevertheless, RTE always seeks to limit the quantities of electricity losses, for both economic and environmental reasons: they account for over 95% of RTE's energy bills and 54% of its greenhouse gas emissions. Adjusting operating plans to reduce losses is a constant concern for RTE's operators, and their actions reduce the annual volume of losses by around 1.5%.

At the end of 2021, RTE decided to update its internal carbon price used to value SF<sub>6</sub> discharges in relation to the trajectory derived from the 2019 Quinet report. The estimated price is now €250/tCO<sub>2</sub>eq in 2030. The greenhouse gas emissions generated by redispatching, electricity losses and unevacuated energy will be valued as equivalent to an ambitious projection of the European emissions trading scheme EU-ETS.

#### 7.2.1.1.2 Actions for energy efficiency in substations by measuring the consumption of connected objects

Consumption by ancillary units of substations is estimated to account for 3% of RTE's total electricity losses. To control these losses, RTE has introduced a plan for remote measurement of energy consumption by the ancillary units at substations that are new or being rebuilt/extended.

#### 7.2.1.1.3 Energy efficiency in buildings

In response to publication of the "tertiary decree" for energy savings in tertiary buildings in France, RTE determined the scope concerned by the decree and began to construct its action plan.

The administrative data and energy consumption information will be entered into the ADEME's OPERAT platform in 2022, as its operational start date was deferred.

#### 7.2.1.1.4 Digital energy efficiency

RTE joined the digital responsibility association *Institut du numérique responsable*<sup>(1)</sup> in 2021, signing the Charter<sup>(2)</sup> which formally expresses its commitment to responsible digital operations as part of a community of engaged actors.

Accordingly, a dedicated post for a head of responsible digital operations was created in September 2021, with the objective of developing a roadmap, and clarifying and developing the associated actions, particularly with partners.

#### 7.2.1.1.5 SF<sub>6</sub> action plan

The principal types of direct emissions by RTE relate to leaks of SF<sub>6</sub>, a powerful greenhouse gas with a global warming potential that is 23,500 times stronger than CO<sub>2</sub>. This synthetic gas is used in the electricity industry as an insulator, especially for metal-enclosed substations because it is compatible with compact design, and overhead circuit-breakers. SF<sub>6</sub> discharge may be caused by:

- accidental leaks from facilities (leaks due to damage);
- the age of facilities (leaks while in normal operation);
- maintenance operations or dismantling of equipment at the end of its life (leaks during special operations).

In 2021, for a total installed mass of 576 tonnes of SF<sub>6</sub>, emissions amounted to 4.62 tonnes, or 108.7 ktCO<sub>2</sub>eq.

As well as RTE's ongoing efforts through the policy to cut air pollution and control SF<sub>6</sub> leaks, and the work done on metal-enclosed substations (under the €630 million plan to replace the substations generating the largest leaks in 2020-2035), significant developments in 2021 were:

- signature of two virtuous purchase contracts for acquisition of high-voltage circuit-breakers:
  - a framework agreement covering the purchase of SF<sub>6</sub> circuit-breakers, giving priority to low-volume equipment,
  - a contract for experimental rollout from 2022 of 100 kV circuit-breakers that do not use SF<sub>6</sub> (instead using g<sub>3</sub>, vacuum, O<sub>2</sub>/CO<sub>2</sub> mixed gas circuit-breakers);

(1) INR | Institut du numérique responsable – Think Tank (institutnr.org).

(2) Charte numérique responsable | Un engagement pour maintenant (institutnr.org).

- use in the final quarter of 2021, at two pilot sites (Penly and Le Havre), of an innovative process for plugging SF<sub>6</sub> leaks, developed by RTE's R&D teams. RTE's objective is to bring SF<sub>6</sub> discharge below 4.5 tonnes by 2025.

#### 7.2.1.1.6 Energy-sufficient employee mobility

Since 2011, RTE has been continuously working to reduce the environmental impacts of employee movements (travel is the sixth-largest source of RTE's greenhouse gas emissions, accounting for 2% of emissions).

On 1 January 2021, the company adopted a new policy for RTE employees' work-related travel. The new policy encourages employees to evaluate the relevance and necessity of any trip before they travel, and to examine all the possible alternatives such as use of remote communication tools; it then promotes use of transport methods that have a low environmental impact.

#### 7.2.1.1.7 Raising employee awareness

In 2021, RTE developed an e-learning course on the topic of climate change, to build employee awareness of climate change issues and the importance of their own individual actions.

925 employees had completed this course by the end of 2021.

#### 7.2.1.2 Adapting to climate change

Climate-related events are likely to become more and more serious, with consequences for the electricity supply-demand balance (affecting the level and zones of consumption, with generation facilities impacted by wind, heat and rainfall conditions), and the network infrastructure. These impacts are expected to become more significant as climate change advances. To fulfil its role as pathfinder and operator in a modified climate, RTE must already incorporate climate change considerations into its prospective studies.

For studies of the supply-demand balance, RTE carries out regular 10-year prospective reports (the Generation adequacy reports) which now cover a large number of possible climate years (200) representative of the current climate. France's national weather office Météo France, which produces these climate databases, has also supplied two new sets

of 200 climate years representative of the climate in years around 2050, based on two greenhouse gas emission scenarios taken from the report by the Intergovernmental Panel on Climate Change (IPCC) (paragraphs RCP4.5 and RCP8.5).

Over the last two years, these three databases have been used for the Energy Pathways to 2050 study, which in autumn 2021 presented an in-depth analysis of various electricity mix scenarios with a view to achieving French and European carbon neutrality objectives.

The climate databases used offer insights into a large number of meteorological situations, with spatial and temporal coherence between the variables. In particular, they provide information for conducting specific stress tests including detailed analyses of certain extreme situations.

For the network itself, RTE invests in installations that in some cases are intended to last for decades. It is thus crucial to identify any weaknesses in the existing infrastructure, links and substations, particularly their sensitivity to temperature and flooding.

RTE must also review the adequacy of its technical recommendations for the future climate, adjusting them if necessary to design future infrastructures that will be robust to climate change from the outset. RTE thus decided to launch a **Resilience project** to objectify these weaknesses by reference to the same 2050 climate scenarios developed with Météo France, from scenarios established by the IPCC, as those used to analyse the electricity supply-demand balance.

To address the risk of heatwaves, in 2021 some calculations were generalised to the entire infrastructure, and the results were compared according to the three climate scenarios available to RTE. These calculations will continue in 2022.

To address the risk of flooding, RTE signed a partnership agreement in 2021 with the French public-sector reinsurer Caisse Centrale de Réassurance (CCR), which will model for RTE the water levels reached in substations and pylons close to riverbeds in different periods. The modelling will also be based on the current climate and the climate in scenarios RCP4.5 and RCP8.5 up to 2050. The events modelled will be river flooding, runoff water flooding, and submersion by the sea.

To cope with heatwaves, a “hot weather plan” was introduced in the summer of 2020 and renewed in 2021. This plan classifies around 1,300 overhead lines in France as sensitive to hot weather, and the goal is to limit breaches of regulation safety distances, while keeping the consequences for customers and worksites to the minimum. As 2021 was a dull summer, the plan was only activated very occasionally.

In 2020, RTE also decided to apply a minimum 65°C distribution temperature for all its line renovations.

## 7.2.2 PRESERVING RESOURCES (CIRCULAR ECONOMY) AND BIODIVERSITY, AND PREVENTING POLLUTION

Preserving resources, protecting biodiversity and preventing pollution of all kinds are natural concerns for a major infrastructure operator.

RTE is taking a proactive approach to reducing its environmental impacts and preventing pollution from its activities, notably by introducing new methods and building on training and awareness-raising provided for every employee.

**Environmental action at RTE follows a general environmental policy that defines its ambitions, and an environmental management system that includes a programme for action at national and regional level called the Environmental management programme.**

RTE has held ISO 14001 certification for all of its activities since 2004, and has an audit performed by an AFAQ<sup>(1)</sup> – accredited organisation every year. The most recent renewal audit by AFNOR<sup>(2)</sup> Certification in 2019 found no points of non-compliance. RTE’s certification was confirmed in the follow-up audits of 2020 and 2021, in recognition of RTE’s continuous improvement policy for environmental action.

Given the scale of environmental challenges, RTE has been taking steps since 2017 to incorporate **ecodesign** into its environmental management

system, so that environmental factors are paid more attention right from the design stage of its projects, policies and purchases under a full life-cycle approach. The chief aims of this approach are to reduce greenhouse gas emissions and reduce the volume of materials extracted.

This approach applies to all the company’s activities: physical expansion of the network, internal policies and recommendations, prospective studies, and purchases. To consolidate the earliest initiatives identified, reflection will continue with a focus on the circular economy theme, striving to add an environmental criterion to the existing technical and economic decision-making criteria, and further exploration of promising areas for innovation.

### — Plant and animal life and the landscape

RTE is continuing to introduce its **action plan for the period 2020-2024**. This action plan was also filed as part of the *Entreprises engagées pour la nature* (Companies committed to nature) – Act4 Nature France initiative and the Act4nature International alliance<sup>(3)</sup> RTE’s commitments are thus clearly announced in relation to nine areas: vegetation management beneath power lines, reducing the use of chemical weedkillers, protecting birdlife, promoting urban biodiversity, identifying the biodiversity impacts of the company’s activities, stakeholder relations, employee training, developing indicators, and building good supplier relations.

#### Protecting birdlife and installing power line markers

RTE installs special devices to limit the impact of its facilities on birds. The company’s bird protection policy sets out measures for eliminating the most sensitive points in terms of bird collision risks.

Line markers are visual devices installed on conductors and earth wires to make them more visible, and therefore lower the risk of collision for birds. Slightly more than 2,400 km of overhead lines carried markers to protect birds by the end of 2021.

(1) Association française pour l’assurance de la qualité.

(2) Association française de normalisation.

(3) The *Entreprises engagées pour la nature* – Act4 Nature initiative is a State-sponsored initiative linked to the French Biodiversity Office (Office français de la biodiversité – OFB) that has existed since 2018, partly thanks to RTE. It took over from the Stratégie Nationale Biodiversité, which had around thirty members but very few businesses, and then the Act4Nature initiative. RTE is also a member of the **Act4Nature International** (alliance which works to promote biodiversity).

RTE currently spends an average €500,000 every year putting markers on its existing lines, in addition to markers installed in the course of development and engineering work and other maintenance policies.

RTE is a member of France's national birdlife committee (CNA<sup>(1)</sup>) which involves associations (LPO, FNE), Enedis and the Ministry for the Environment. The CNA is a forum for dialogue to prioritise actions to protect birdlife around power lines. The CNA is active across France, sometimes through regional committees as is the case in the Auvergne-Rhône-Alpes region.

Interactions between birds and RTE's activities is also the subject of research and prospective action. RTE is engaged in an operation concerning wild ospreys, and has conducted camera-based studies of the way birds behave around electricity lines.

#### Developing biodiversity below the lines

20% of RTE's power lines pass above natural zones, 70% are in agricultural areas, and 10% in urban areas. RTE principally uses rotary mulching to maintain the linear forest clearings where vegetation is a risk for the network, but this can cause disturbance to biodiversity.

Following the Europe-wide LIFE project undertaken with its Belgian counterpart Elia, RTE is continuing to introduce biodiversity-friendly land management practices to the land beneath its lines, in partnership with natural space managers and local actors such as hunting federations.

These practices consist of restoring or creating natural open environments, maintained through grazing, late mowing or selective cutting. They are compatible with electricity grid safety and improve the integration of facilities into the surrounding countryside, encourage biodiversity and good relations with third parties, and reduce maintenance costs.

Since 2018, the "BELIVE" project, whose name stands for *Biodiversité sous les Lignes par la Valorisation des Emprises* (Biodiversity below the lines by enhancement of the occupied areas) has studied the industrial rollout of these vegetation management techniques that provide an alternative to rotary mulching. This R&D project is being run in the Ardennes area in north-east France, and areas in the west and south-east of France, and 325 hectares of land under power lines had been processed by the end of 2021.

The experience gained through existing partnerships and the BELIVE project will enable RTE to apply an alternative vegetation management policy, to develop virtuous vegetation management methods that are industrially and economically sustainable.

By the end of 2021, a total 1,439 hectares of land had been made biodiversity-friendly. RTE has made a commitment through the *Entreprises engagées pour la nature* (Companies committed to nature) – Act4 Nature France initiative to raise this to 2,300 hectares by the end of 2024.

#### Establishing and promoting urban biodiversity

RTE has reaffirmed its commitment to promoting biodiversity by renewing its partnership with the nature protection association Noé for the period 2022-2024. RTE is thus supporting development on office sites of green spaces that are managed under biodiversity-friendly and wildlife-friendly principles, through the "Jardins de Noé" label.

#### Reflection on land take

RTE has various projects ongoing to classify the level of land take associated with its facilities, especially based on the impact on their environment and biodiversity. The idea is ultimately to categorise all the land covered using a scale that does more than simply distinguish between manmade and natural spaces, and registers different levels of manmade land take according to a site typology (vegetation-free sealed soil, mineral permeable surface, soil surface with vegetation).

#### **— Knowledge and protection of the marine environment**

RTE is the entity in charge of connecting France's offshore wind farms, and several undersea electricity interconnectors. Starting with the Dunkirk wind farm project, the connection facilities under RTE's responsibility now include the offshore substation. To complete these projects while protecting the environment at every stage of the offshore facilities' life-cycle, RTE is working with partners in the marine world to develop relevant knowledge. It implements the avoid-mitigate-offset-monitor principle and supports relevant skill development for this type of work.

#### Identification and anticipation of the impacts and potential benefits of RTE's activities for marine biodiversity

RTE is engaged in several research and development projects with scientific partners, to study and control

(1) Comité national avifaune.

the potential ecosystem impacts of underwater electricity cables. These projects are ongoing and pursue three principal aims:

- Studying the potential effects of installation and operation of undersea electricity cables:
  - The OASICE project studies how construction and operation of new undersea electricity cables affect the marine environment, using scallops as bio-indicators. A large amount of data was collected in 2019 and 2020 during the installation of the IFA2 undersea interconnector. Initial results show that scallops are a relevant tool to gather detailed knowledge of the state of the marine environment in the Seine Bay.
  - The SPECIES project, coordinated by France Énergies Marines, France's national institute for research on renewable marine energies for the energy transition, studies how undersea electricity cables laid on or buried in the seabed affect the benthos (the community of organisms that live on the seabed), looking particularly at the reef and reserve effects, and the effect of electromagnetic fields. The results published in 2021 show, among other information, that the behaviour of young European lobsters is not affected by the magnetic field emitted by undersea cables.
- Characterising the dynamics of the environments where offshore floating and fixed-foundation wind farms and their connection to the network will be located:
  - Three projects in particular, conducted in partnership with France Énergies Marines, aim to better characterise marine ecosystems and their dynamics in relation to the social sphere (the APPEAL project), the physical environment (the DUNES project), and infrastructure supports during the open water colonisation phase (the ABIOP+ project). These projects are developing understanding of the initial state of the environment and the species dynamics, and the information is used to model future developments according to environmental modifications.
- Exploring innovative solutions:
  - The BIOMIM – *Lignes de vie marine* (marine lifelines) project concerns bio-inspired solutions for offshore wind farm connection. The objective is to combine a solution inspired by nature with a marine infrastructure that is conducive to regeneration of ecosystems.
  - RTE wants to develop more than just the electricity dimension of its platforms: it is keen to make them an instrument for co-uses, putting the information and innovation they produce to use for local areas and users of the sea.

RTE is also a participant in two general-purpose projects:

- the “cumulative effects” scientific interest grouping, which studies the eastern English Channel under a regional approach, to understand the cumulative effects of maritime activities (extraction of marine aggregates, renewable marine energies, immersion of sediment, fishing);
- the COME3T national network of experts, formed to provide expert knowledge, analyses and recommendations on environmental and socioeconomic issues relating to renewable marine energies.

#### **Applying the Avoid-Mitigate-Offset-Monitor (ERC-S<sup>(1)</sup>) principle to protect the marine environment**

As a responsible company with a public service mission, RTE develops its projects in accordance with the Avoid-Mitigate-Offset-Monitor principle. The main actions implemented include the following:

- In 2019, RTE and the French marine research institute Ifremer updated a summary of knowledge about the impacts of undersea electricity cables during the construction/installation and operation phases. No significant potential impact was detected, and the knowledge collected indicates that these cables' ecological effects relate to environmental issues typically inherent to any artificial structure installed on the seabed (modification of the natural substratum), and to more unusual questions concerning electromagnetic fields and cable warming. In 2020, RTE engaged consultants CREOCEAN to consolidate knowledge of the impacts of offshore substations.
- RTE is building on the Avoid-Mitigate-Offset-Monitor measures stipulated in the connection and interconnection permits already granted, complemented by experience gained from implementing the environmental commitments made for offshore work.

#### **— Raw materials, the circular economy and waste management**

##### **Increased traceability in raw material consumption**

As well as restraining energy consumption, in order to control and reduce its consumption of all kinds of resources RTE is improving the traceability and measurement of its consumption of raw materials, particularly:

- consumption of metals:
 

Since 2017, RTE has worked to improve quantification of the principal metals found in the current electricity network (steel, aluminium, copper and zinc) and forecast consumption of those metals, for the purposes of managing its assets and contributing to preservation of resources.

(1) Éviter, réduire, compenser, suivre.



Through GHG emission and life-cycle analysis studies, in 2021 RTE:

- improved knowledge of the volumes of raw materials used in its network,
- started work on characterisation of the materials content of network components that form its current and future footprint (currently aerial and underground power lines);
- IT, telecommunications, and paper consumption: RTE is committed to more sustainable use of digital equipment: purchasing ecodesigned hardware, extending the operating life of equipment, sharing resources, dematerialisation, virtualisation, and reconditioning of unused equipment. RTE also raises employees' awareness of environmentally-friendly practices that can reduce use of consumables, notably via the company's profit share agreement (which includes an indicator concerning the volume of printouts), and "challenges" to reduce email use and storage. RTE is encouraging use of "virtuous" consumables such as recycled paper, which has become the norm at the head office. For software, RTE promotes open-source development, with code reuse and application of software ecodesign rules. Good information system planning is also a factor of optimisation, because it avoids duplicating identical functions in different applications.

#### The circular economy and waste management

In the spirit of France's law of 10 February 2020 on action against waste and the circular economy, RTE is broadening the application of circular economy principles in its activities.

When waste is produced, RTE prioritises recycling as far as possible and subsequent reuse by any method, including for producing energy. The company sets up "eco-sites" with high recycling rates for all

operations with substantial potential for producing waste and/or significant environmental challenges.

Most of RTE's waste (nearly 85% in 2019) is inert waste such as excavated earth. In 2020 close to 90% of this waste was recycled, most of it being sent to fill cavities at quarries.

To make the circular economy a key concern for everyone at RTE, the waste recycling rate has been one of the criteria included in the company's profit share process since 2018.

The overall recycling rate for RTE's own waste in 2021 was 79.70%.

#### **— Anti-pollution action**

RTE takes a proactive approach to reducing its environmental impacts and preventing pollution of all kinds caused by its activities. This strategy includes preventive action such as employee training or installation and compliance upgrading of containment systems beneath high-risk facilities, and curative action such as provision of anti-pollution resources and procedures for intervention in the event of an environmental emergency.

#### Action against oil pollution of water and ground

RTE operates facilities that contain oil (power transformers, ancillary service transformers, underground oil-filled links, etc.). As these facilities are leakproof, they pose no risk for the environment in normal circumstances, but they can be a source of damage to soil and water if an accidental oil spill happens. RTE is thus ready to intervene and prevent any risk of pollution if such an incident arises. Dedicated processes exist to identify facilities at risk, so as to improve control of accidental pollution, and the employees concerned are trained to handle such incidents.

Accidental oil leaks	2017	2018	2019	2020 <sup>(1)</sup>	2021 <sup>(2)</sup>
Unrecovered oil – underground links (in m³)	19.56	1.36	4.85	2.36	12.96
Unrecovered oil – transformers and substations (in m³)	5.09	5.84	14.49	17.40	45.16
Recovery rate (in %)	57.33	84.64	89.30	80.63	54.17
<b>TOTAL</b>	<b>24.7</b>	<b>7.2</b>	<b>19.3</b>	<b>19.8</b>	<b>58.1</b>

(1) Adjusted data for the calendar year.

(2) Data for 12 months from November 2020 to November 2021.

#### Action against PCB pollution of water and ground

Some of RTE's facilities may contain polychlorobiphenyls (PCBs). To honour its commitment to eliminate or decontaminate all its PCB-polluted equipment by 31 December 2025, RTE has a specific plan that was approved by a ministerial decision of April 2014, and amended in 2019.

At 31 December 2021, RTE's specific plan was 96% complete (155 of 162 facilities have been treated), and the amendment to the plan is 89% complete (34 of 38 facilities treated).

Execution of this plan is progressing on track to meet the 2025 deadline for treating all RTE equipment containing PCBs.

#### The "zero-phyto" objective

In 2021 RTE adopted a new policy, "zero-phyto II", to end the use of phytosanitary products at substations. The action will be rolled out over time in order of environmental priority. This new policy has been validated by the CRE and will receive specific infrastructure investments by RTE in the next few years.

The phytosanitary products RTE uses at its substations are essentially weedkillers with active ingredients that destroy vegetation. RTE made commitments in the 2010 "Ecophyto" plan to monitor and analyse the use of such products through annual reporting, in order to confirm that the weeding work done complies with regulations.

To reduce its environmental impact, RTE has experimented with differentiated management of green spaces and alternative weeding practices. The results of those experiments formed the basis of a strategy drawn up in 2018 to end the use of phytosanitary products at all its substations.

Consequently, since 2018 all RTE's office sites have been maintained without weedkillers, and since 2019 all new substations in development include features to make them compatible with "zero-phyto" maintenance.

In 2021, six of the seven regional substation maintenance contracts were renewed with inclusion of the obligation to use alternative weeding methods at sites of less than 5,000 m<sup>2</sup>.

Procurement notices have been issued with a view to converting existing sites, and project teams have been designated to roll out the "zero-phyto" strategy.

RTE currently maintains 2,300 hectares in its electricity substations, including 1,400 hectares where phytosanitary products are used, which will be progressively converted. The conversion rate of sites to the "zero-phyto" policy was 24% at the end of 2021. The employees working at electricity sites that already follow this approach emphasise the benefits in terms of quality of life at work.

#### — Professional development for all employees

As environmental campaigns require commitment from employees, RTE offers professional development action and materials in the form of methodological guides, awareness-raising, special campaigns and training.

RTE's environmental professionalisation group maintains and develops skills in this field by offering specific training appropriate to the company's environmental issues: understanding the impacts, waste management, third party safety and biodiversity. This group makes sure that the technical training available in every business function incorporates these aspects. It monitors all the company's environment-specific training and prepares new courses if necessary.

A new e-learning course entitled SUE was released in June 2021, and three more courses are being finalised for release in 2022, on the topics of Electromagnetic fields, Waste management, and Pollution management.

RTE made a commitment under the *Entreprises engagées pour la nature* (Companies committed to nature) – Act4nature initiative to double the number of employees who have received elementary training in biodiversity by 2022, and to increase employee participation in operations to raise awareness of biodiversity issues.

Between 17 and 21 May 2021, RTE participated in the 11<sup>th</sup> *Fête de la nature*, an annual celebration of nature. 36 events were held on the theme of "A thousand and one ways of seeing", attended by nearly 800 people (members of the public, school groups and employees).

## 7.3 SUPPORTING CUSTOMERS AND LOCAL AREAS

### 7.3.1 GREATER SENSITIVITY TO THE QUALITY OF ELECTRICITY

France's public electricity transmission network needs to adapt to changing lifestyles, for example through restructuring to cope with peri-urbanisation or transferring equipment underground in areas where land is in short supply, while also beginning a crucial phase of upgrading or dismantling for the oldest parts of the network.

Ensuring a reliable power supply is a key issue for development of the economy, and particularly important for attracting businesses to which electricity quality is vital (e.g. datacentres).

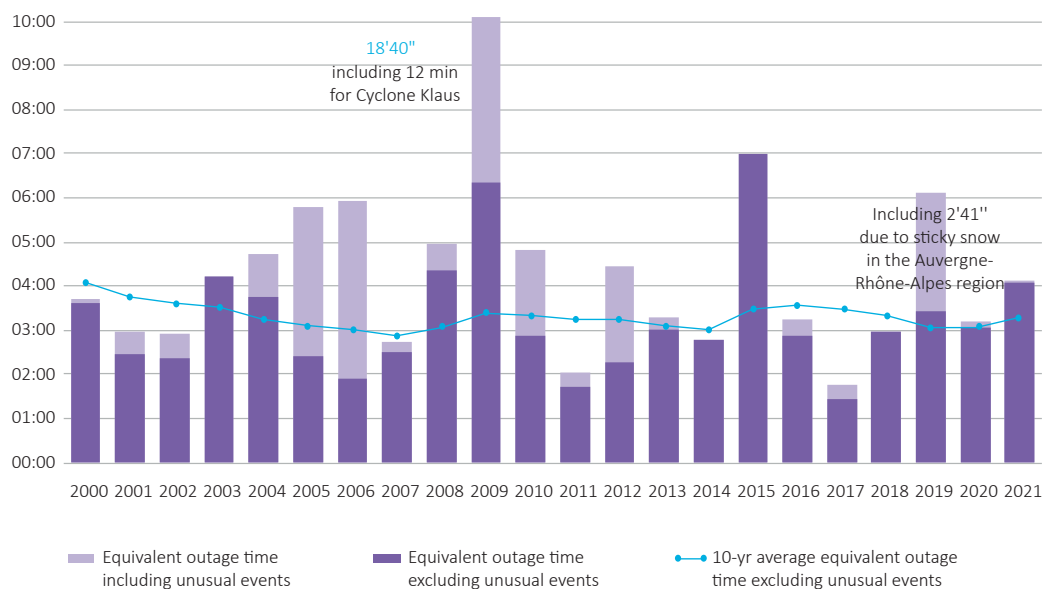
Furthermore, society is becoming increasingly sensitive to power cuts. Any break in power supply is considered very costly for the community, due to the resulting disruption of industrial and professional work, disturbance to transport services, etc.

RTE is taking action to address this issue, with three-year commitments concerning the quality of electricity for customers (consumers and distributors).

RTE uses several indicators to measure its performance on electricity quality:

- **Equivalent outage time:** the average duration of power cuts, calculated as the ratio of undistributed energy to the average power distributed during a given year. In 2021, the equivalent outage time totalled 4 minutes 9 seconds, or **4 minutes and 5 seconds** excluding unusual events. This corresponds to 3,155 MWh of undistributed energy, or **3,099 MWh** excluding unusual events (the only such event in 2021 was the load shedding following outages of 400 kV facilities caused by fires in July, which also led to disconnection from the Iberian peninsula network). The equivalent outage time for 2021 was higher than the average for the ten previous years (3 minutes 6 seconds), for the reasons explained in 7.1.2.

**Equivalent outage time**  
(in minutes)

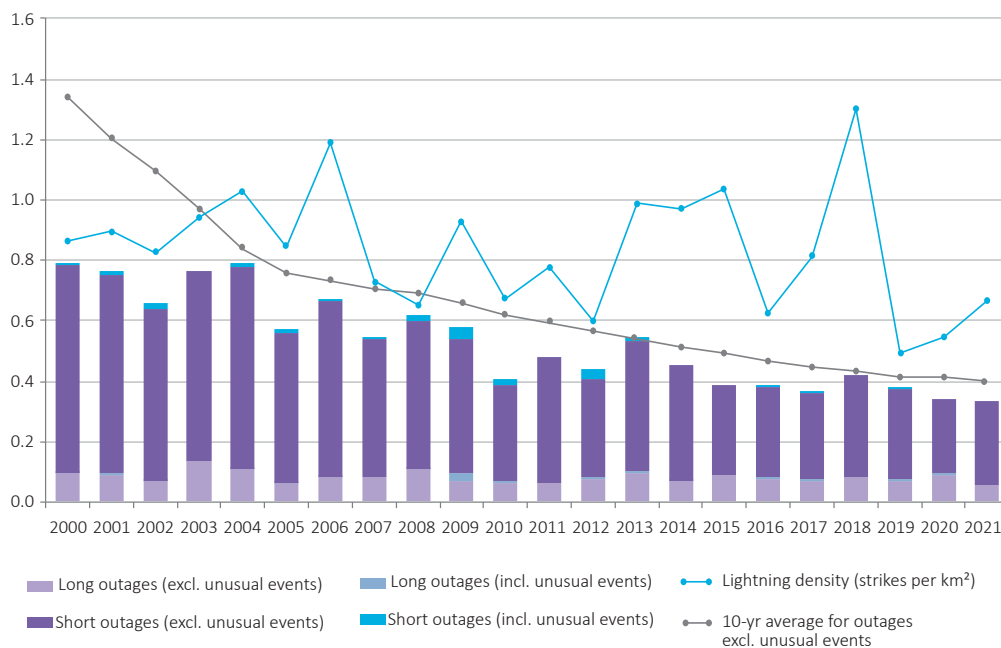


- **Outage frequency** is the average number of unplanned power outages per site during the year. It is broken down into long-outage frequency and short-outage frequency. The outage frequency for

2021 was **0.333** (equivalent to one power cut per site every three years, with 83% being of short duration<sup>(1)</sup>), in line with the results for 2020.

(1) Power cuts lasting less than 3 minutes.

### Outage frequency (in minutes)



- RTE has made a commitment to keep outages below a limit set by reference to the track record for each site. Although the commitment thresholds are being gradually raised, the results remain good: at 31 December 2021, these limits were 97.8% respected for distributors and 88.3% for industrial customers. RTE has also made a commitment to consumers to keep the total duration of outages below a certain limit for each three-year period. At 31 December 2021, these limits were 95.25% respected for industrial customers.

**RTE is also committed to minimising the disturbance caused to customers by scheduled work** that is essential to keep facilities in good operating order. Work on the network is always scheduled in liaison with each customer, so that any constraints and opportunities relating to their specific needs can be properly addressed.

For industrial consumption sites, the commitment of no more than three days of pre-scheduled unavailability in three years for each connection was respected in 62% of cases at 31 December 2021.

When RTE was obliged to exceed this threshold due to more complex work, this was done with the customer's consent, generally during a break in their activity or when an alternative power supply was available, thus avoiding adverse effects for business and minimising any surplus costs.

At the vast majority of generation sites, breaks in activity are sufficiently long for network maintenance operations to be completed without affecting output. For other sites where this is not possible (e.g. renewable energy plants), scheduled interruptions are subject to a commitment that they will not exceed five days in three years.

For distributors, the schedule is coordinated between network operators such that work can be done without interrupting the electricity supply to end customers. To simplify and streamline execution, scheduling is shared with the distribution network operator Enedis via a common information system that was rolled out in early 2020.

### 7.3.3 STRONGER REGIONAL AND LOCAL AMBITIONS

In France, local authorities have many powers in matters relating to the energy transition, economic development and local area improvement. RTE, as guarantor of a secure electricity supply and inter-regional electricity solidarity, works to use its expertise for the benefit of multiple local projects, and also to address more specific needs.

With the ambition of being a partner in the performance of local areas and regions, RTE has set itself the goal of constructing a set of services corresponding to four themes: local/regional economic appeal and employment, the energy transition, the ecological and inclusive transition, and quality of life.

#### RTE'S ACTIONS AND COMMITMENTS

##### — Laying the groundwork for economic appeal and local employment opportunities

With its nationwide network, RTE works alongside regions and local areas to welcome new industrial projects or support development of existing industrial activities, building on five major assets of the French electricity system as identified by local and industrial actors:

- the quality and availability of electricity, drawing on RTE's network coverage and the knowhow of its 9,000 members;
- personalised support offered by RTE to local and industrial actors;
- the French electricity system, which offers a broadly carbon-free mix;
- well-controlled connection costs and competitive electricity prices in France;
- strong engagement by RTE with industrial actors to control risks on the various projects.

RTE puts these strengths to use in relations with economic actors both national (the French government's Department for Businesses, the business support agency *Business France*, the Federation of economic development agencies, the industrial employers' association *France industrie*, etc.) and regional (local authorities, economic development agencies, chambers of commerce and industry, competitiveness hubs, etc.) to plan ahead for the development and arrival of new industrial actors.

The actions engaged with these local and regional players are fully coherent with the national economic recovery dynamic set in motion in 2020 and supported by the French authorities.

##### — Leading the energy transition to fight global warming

Local actors are fully committed to developing policies and actions to fight global warming and support the energy transition.

RTE assists them by producing, analysing, and providing a broad range of data that can help them achieve a long-term supply-demand balance for electricity, a safe electricity system, and interzone solidarity for electricity.

RTE is also taking steps to include industry decarbonisation projects involving process electrification, and green hydrogen projects headed by local areas.

##### — Protecting biodiversity and resources for the ecological, inclusive transition in local areas

The electricity transmission network consists of nearly 106,000 kilometres of power lines, some of them located in environmentally protected zones or woodland zones. Preserving and enhancing biodiversity are key commitments of RTE, and support the objectives and policies introduced by local authorities.

For example, RTE is introducing alternative management practices for vegetation beneath the power lines, to contribute to biodiversity regeneration and promote the use of French wood, the country's largest renewable resource and a lever for achieving carbon neutrality by 2050. RTE is experimenting with the *Élec'tronc* initiative to minimise rotary mulching; thanks to participation by local actors, it also contributes to use of wood in the land under network installations and supports economic activity in local areas through local job creation in the wood industry. More than fifty *Élec'tronc* projects were in progress, in preparation or completed at the end of 2021.

##### — Enhancing local quality of life

Health, education, employment, agreeable surroundings, social cohesion and good town planning are all factors that add to local quality of life.

Since the perception of the landscape influences this quality of life, RTE is committed to respecting the landscape. The company works together with local authorities, local residents and the academic world to create positive perceptions of the electricity transmission network infrastructures.

In the partnership with the French national federation of urban planning agencies FNAU<sup>(1)</sup>, a guide was published to facilitate integration of RTE's facilities into the urban landscape. The aim is to encourage forward planning and dialogue between RTE, urban planners, project owners and local authorities. The solutions that emerge from this dialogue can be very innovative, provided they are incorporated into the preparation of planning documents at the earliest stage possible.

#### — RTE's purchases, a contributor to local development

RTE's purchases also contribute to local economic development. In 2021, the amount of RTE's direct purchases from small and medium-sized enterprises was €441 million or 21% of the company's total purchases. RTE's objective is to make at least €410 million of purchases from small and medium-sized enterprises in 2022. Approximately 90% of RTE's purchases are from suppliers located in France.

RTE has several levers for supporting employment in local areas:

- tenders are structured in a way that facilitates participation by local SMEs. For example, in 2021, purchases for the national contract for painting RTE's pylons (€64 million) are tendered in batches such that regional SMEs are able to put in bids;
- contracts are awarded on a best-bid and full life-cycle cost basis, taking into account the cost of transport, travel and in some cases, the carbon impact, in order to encourage bids from local suppliers;
- meetings between the groups that hold national contracts and local SMEs are regularly organised, with the support of local CCLs, to help bring the actors concerned into contact. For example, on 19 October 2021 RTE took part in the "Normandy business encounter days" which are targeted, scheduled meeting events for contract holders and suppliers based in Normandy.

As an active member since 2013 of the association *Pacte PME* that promotes trade with small and medium-sized enterprises, RTE applies the good

practices recommended by the association, and continues regular publication of "calls for skills" on the *Pacte PME* site, to which SMEs respond with proposals.

As well as a focus on SMEs, RTE fosters employment in local areas by incentivising suppliers to hire people who have lost touch with the job market, through social clauses included in its tender consultations and contracts. These clauses led to over 46,000 hours of work in 2021 for unemployed people. Some projects made a particularly noticeable contribution to these results: examples include connection of the offshore Fécamp wind farms by underground links, and completion of the building for the Harcourt metal-enclosed substation. In 2021, RTE entered into an agreement with the city of Lyon's jobseeker support organisation MMIE for the development of supported employment in all types of RTE projects in the Auvergne Rhône-Alpes region.

Through its disability agreement, and with the support of the GESAT network, a national association of ESAT and EA entities that aim to promote employment of the disabled, RTE is continuing to increase its purchases from the protected and sheltered sectors, which totalled €2.6 million in 2021. One illustration is the Facility Management contract for RTE sites: for the period 2022-2027, it is planned to purchase €1.5 million of services per year from the protected and sheltered sectors.

#### 7.3.4 SUPPORTING AND FACILITATING CHANGE FOR CUSTOMERS

There are many challenges relating to customers:

- maintaining RTE's customer satisfaction at the top end of the benchmark range for industrial service companies;
- reinventing and improving services to RTE customers (including the digital transformation);
- building stronger economic roots in local areas for future customers and employment catchment zones.
- maintaining high-quality customer relations on a daily basis, and quality contract writing, invoicing, energy measuring and metering, data validation, oversight of financial settlements relating to market mechanisms, and debt recovery.

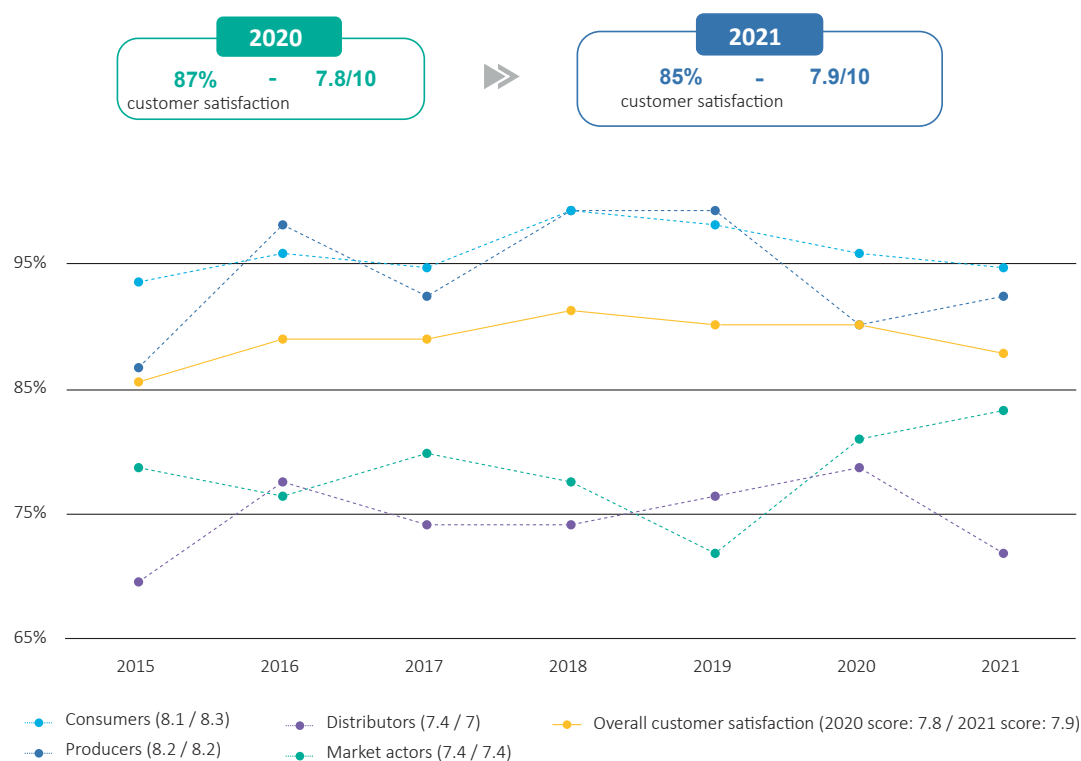
**RTE promises satisfaction and support for today's customers.**

(1) Fédération nationale des agences d'urbanisme.

### — Improving quality of service at RTE

The customer satisfaction survey conducted by the sales division in 2021 measures the satisfaction of all RTE's customers, be they industrial customers, producers, distributors or market actors. They were asked to rate a broad range of items covering all their interactions with the company on a scale of 0 to 10 (a rating of 7 or above is considered to indicate a satisfied customer). This rating is one of the criteria for calculation of RTE employees' profit share.

The **overall customer satisfaction score** declined by two points in 2021 to 85% (from 87% in the previous two years), the lowest score since 2016. A higher satisfaction score among market actors and producers is counterbalanced by a substantial downturn in the score attributed by distributors. However, more than one third of customers, a slightly larger proportion than last year, gave RTE a very good rating (9 or 10 out of 10).



What customers want most is more transparency (in the event of network incidents affecting their electricity supply, or on matters concerning network connections, particularly in the case of distributors), greater coordination for work scheduling, and simpler market rules.

Every dissatisfied customer is contacted by the sales teams after the survey, to find out more about the causes of their dissatisfaction. The results of these contacts are analysed by product line (connection, electricity quality, metering, access to markets, etc.)

or by customer segment (consumers, producers, distributors, market actors). The analyses are then used for action plans drawn up jointly with the functions concerned.

### — RTE customer services

Making things easy for new customers and supporting the energy transition (e.g. For renewable energy producers, electricity storage operators, data centres and customer projects to decarbonise their processes) is also a priority at RTE.

The introduction of the new TURPE 6 network access tariff in august was an important event of 2021. Ahead of changes in the invoicing rules, RTE organised several workshops presenting the new TURPE tariff for all its customers.

On the market mechanism side of RTE's business, the emphasis remains on continuing to educate actors to give them a clear understanding of the many market mechanisms set up by RTE, with ongoing operation of the existing mechanisms, and on incorporation of new systems (long-term tenders for the capacity mechanism, daily tenders for the rapid/additional capacity reserve, demand response tenders for suppliers, the TERRE European platform, etc.).

Meanwhile work to simplify the market mechanism rules has been launched.

The sales teams also remained available to industrial customers during the economic crisis triggered by the Covid-19 pandemic, and are continuing to provide support.

#### — Facilitating change for customers

In parallel to the above steps, RTE is continuing its digital transformation (dematerialisation of contracts, data access authorisations, etc.) and the rollout of access to data. The company is also preparing to introduce a new cross-function customer relations management system in the next few years.

## 7.4 LOOKING AFTER EMPLOYEES AND REWARDING TALENTS

Details of the RTE workforce at 31 December 2021:

Contract type	Operational staff	Supervisory and technical staff	Executives	Total
Permanent contracts (IEG and non-IEG status)	387	3,711	4,855	8,953
<i>on pre-retirement paid leave</i>		119	196	315
Temporary fixed-term contracts	164	303	18	485
<i>work-study contracts</i>	164	302		466
<i>other</i>		1	18	19
<b>TOTAL WORKFORCE</b>	<b>551</b>	<b>4,014</b>	<b>4,873</b>	<b>9,438</b>

Contract type	Under 25	25-34	35-44	45-54	55-59	> 60	Total
Permanent contracts (IEG and non-IEG status)	285	2,440	2,481	2,333	1,112	302	8,953
Temporary fixed-term contracts	384	90	10	1			485
<i>work-study contracts</i>	382	73	10	1			466
<i>other</i>	2	17					19
<b>TOTAL WORKFORCE IN AGE GROUP</b>	<b>669</b>	<b>2,530</b>	<b>2,491</b>	<b>2,334</b>	<b>1,112</b>	<b>302</b>	<b>9,438</b>
<b>PERCENTAGE OF WORKFORCE IN AGE GROUP</b>	<b>7.09%</b>	<b>26.81%</b>	<b>26.39%</b>	<b>24.73%</b>	<b>11.78%</b>	<b>3.20%</b>	

### 7.4.1 CONTINUOUS ENHANCEMENT OF SAFETY AND QUALITY OF LIFE IN THE WORKING ENVIRONMENT

Health and safety and workplace life quality were once more a particularly relevant dimension in 2021 as the Covid-19 pandemic continued. The challenge facing RTE was to protect employees' and contractors' health as periods of lockdown alternated with relaxation of anti-Covid measures. Particular attention was paid to the return to the office for teams that had mainly worked from home.

Practical execution of the preventive policy for health, safety and quality of life in the workplace for 2019-2021 focused on leadership and implementation of the management system, soliciting involvement at all levels: the company, the establishment and the divisions. Most of the safety management programme developed in early 2020 continued to apply in 2021.



To promote safety, RTE continued to maintain close contacts with field work teams. In 2021, guides to controlling electricity risks were updated and distributed to the operational actors.

To promote general health, the occupational health department continued to adjust its operating methods to cope with the pandemic situation, providing advice and backup to management, and support and counselling for employees.

To enhance quality of life in the workplace, actions to prevent psychosocial risks continued in response to the needs expressed, which concerned isolation, the backlog of work that has accumulated since 2020, and the risk of interpersonal tensions in certain teams. Raising awareness of ways to prevent all forms of violence at work resumed in the spring, as did evaluation of psychosocial risks as an occupational risk in all work groups. In parallel, all reports of harassment were duly addressed.

#### — Contractors' commitment to safety

An accident prevention charter for RTE and contractors was introduced in 2021. RTE and every firm that signs the charter make joint commitments to:

- apply RTE's "rules that save lives" without fail;
  - promote an attitude of vigilance shared with all employees;
  - develop a common culture of major risk prevention.
- In-depth discussions provided a better grasp of contractors' Safety Management Systems, and an indication of contractor mobilisation.

Tragically, 2021 was marked by one fatal accident, in which a contractor working on the Haute Durance project was killed during a machine manoeuvre. This sad event is a reminder that efforts for safety must persist.

Sharing good practices among the network of preventive health officers at RTE and contractors continued. A particular aim was to update the operational safety rules that are common to all contractors working on overhead lines and substations. The requirement to hold a "High-Voltage Pass" certifying

contractors' knowledge of the risks and remedial measures was extended to contractors working on vegetation around overhead lines. 18,000 High-Voltage Passes have now been issued.

#### — The new 2022-2024 policy for health, safety and quality of life in the workplace, constructed in 2021 together with all the functions: "Making our health matter every second!"

The future policy for health, safety and quality of life in the workplace for 2022-2024 was constructed by a working party of representatives from all RTE's functions, which based its work on a survey of over 600 employees and around a hundred contractors.

The new policy will be put into application from 1 January 2022, under the title "Making our health matter every second!"

#### — A highly motivated occupational health team

The health team at RTE were very active during the Covid-19 crisis, providing all employees and their managers with help and advice. A counselling service was also set up during France's national lockdowns.

RTE's occupational health department also prepared a voluntary flu vaccination programme for employees, in line with the strategy recommended by the French government.

Under the sponsorship partnership with the French Cardiology Federation and during the week-long "Parcours du cœur" event to raise awareness of heart health and the World Heart Day, initiatives were taken to help RTE's employees protect themselves against cardiovascular risk factors.

#### — Stable accident rates

In 2021 the accident rate rejoined the curve of 2019 and returned to the "pre-Covid" level, except for the tragically fatal contractor accident described above.

	RTE			Contractors		
	2019	2020	2021	2019	2020	2021
Work-related accidents entailing sick leave	92	70	82	67	53	60
Work-related accidents not entailing sick leave	72	77	76	38	31	35
Total number of work-related accidents	164	147	158	105	84	95
Including: Cases of sudden illness at work followed by sick leave	28	23	22	3	6	7
Major risk accidents: Falls from heights	1	1	4	6	5	8
Major risk accidents: Electrocution (high-voltage)	0	2	4	3	1	2
Major risk accidents: Electrocution (low-voltage)	0	2	4	2	0	2
Major risk accidents: Chemical substances	1	0	0	0	0	0

#### 7.4.2 MAKING SKILL DEVELOPMENT A PRIORITY

In the current context consisting of a fast-changing electricity market, the need to support the energy transition, significant evolutions in the company's functions, and implementation of its corporate mission statement, skill transformation and development is crucially important.

As RTE is a company where many employees spend their whole career, every manager at the company works in close liaison with the HR division to make sure that each person in their team possesses all the skills relevant for his/her work, and maintains his/her employability in the long term. RTE must also encourage internal mobility, constantly adapt the professional development offered to employees, and treat staff recruitment as an opportunity to acquire skills the company lacks.

**The company's actions in 2021 principally consisted of supporting managers, developing internal skills and bringing in new skills.**

##### — Supporting managers, the essential vectors for transformation

In addition to their traditional role of performance oversight and resource management in a vertical organisation, managers at RTE must also successfully provide support for employee development, collaborative work and collective construction in an increasingly complex, variable context. Managers at executive and local level are now facilitators and leaders of change.

This evolution in managerial culture results from a combination of ongoing, targeted actions for professional development, and more broadly for leadership and communication.

Key actions undertaken in 2021 included extension of the *PrimoLead* training course in remote management (for all RTE managers), and two new training modules on non-violent communication and dialectics, initially for experienced managers.

Meanwhile, individual and collective support was extended. As well as traditional one-on-one coaching, managers are now offered one-hour "flash coaching" sessions, hybrid coaching alternating between distance and face-to-face sessions, and mentoring.

##### — Developing internal skills

###### Mobility support for the Corporate Mission statement

2021 was a time to reinvent training, both for RTE's traditional activities, with better integration of safety and accident-related dimensions, and for the new industrial activities which require organisation and rollout of processes to raise employees' skill levels.

In concrete terms, the HR division worked with actors from the information and telecommunications systems function to construct a specific professionalisation course for the opening of the new 24-hour **CORS-N** control centre on 1 September 2021. This heralds the professionalisation model of the future, mixing CORS-N actors, external service providers, and the RTE Academy.

Similarly, RTE finalised the professionalisation courses and materials for employees due to work in the future entities in charge of electricity system operation (the **COSE** control centres) and the “activities-skills-course models” documentation for the future **Equipment Monitoring** centres. All these entities will operate round the clock.

Finally, a professionalisation course is currently being developed for offshore activities, with input from external experts in geology, marine geotechnics, UXO (unexploded military weapons) and safety at sea.

#### Using new technologies for professionalisation

2021 was also a year of further expansion in the distance learning offering: 3D techniques were used for training in converter station maintenance, and serious games for safety topics.

#### Individual behavioural skills

Behavioural skills (personal skills) are a vitally important complement to all the highly specific technical skills possessed by RTE's employees. The interviews on this subject introduced for managers in 2019 were extended in 2021 so that behavioural skills could be discussed with all RTE employees. Staff and managers are shown a predefined list of behavioural skills and asked to pick out four: two that are ‘assets’ and two that should be developed. These discussions are also helpful for decisions about the levers for achieving this development.

#### — Bringing in new skills

RTE considers that the skills brought in through recruitment are vital, and in 2021 it continued to insource recruitment, with the objective of internally managing 75% of recruitment for management posts, 50% for supervision and technical posts and 40% of work-study posts.

Thanks to their knowledge of the firm's activities and their close relations with its managers, internal recruiters can put forward the most suitable profiles for RTE's current and future skill requirements.

One person was assigned in particular in 2021 to recruiting the unusual, experienced profiles needed for the CORS-N control centre, which external recruitment firms find hard to identify. 12 people were hired in 2021, and a further 29 will join them in 2022.

Traditionally, recruitment at RTE essentially meant hiring young people just starting out, but increasingly it means engaging former work-study employees who have already proved their worth in the company, and employees with experience and skills of particular relevance to RTE. The new recruits are inducted into the company at four levels:

- at national level through the “Starter” course introducing them to RTE's operation and the challenges the company faces;
- at regional level, so they can build a network of local contacts with the people they will be working with;
- at function level, so they can form connections with all their counterparts and develop professionally;
- at the level of their team, the group with which they will be most closely involved.

#### Skill development in figures

Training indicators	2019	2020	2021
Total hours of training	441,000	252,000	367,000
Average hours of training per employee	45	27	39
Training budget as % of total payroll	7.0%	5.5%	6.3%

Recruitment indicators	2019	2020	2021
Total number hired	407	372	383
hired following work-study contracts at RTE	69	71	108

### 7.4.3 PROMOTING SOCIAL DIALOGUE

RTE is aware of the challenges raised by the need for social cohesion, and has always considered social dialogue very important in implementing its human resources policy. The role of dialogue has been reinforced by changes in French laws in recent years (particularly the “Macron orders” on French labour laws), which make collective negotiations a required first step for policymaking that has social consequences. With its strong public service mission culture, RTE has always encouraged social dialogue to support organisational change.

#### — Support for change under the corporate mission statement

Negotiation of working time arrangements for the future 24-hour control centres continued in 2021 and ended in March. The outcome was an agreement setting a framework for common measures on working hours and indemnities for round-the-clock shift work in all the entities concerned. Negotiations on the working hours and shifts for the first two 24-hour centres planned in the corporate mission statement, which will be opened in 2022 and 2023, also ended in 2021 (without an agreement having been reached), and local measures will be defined for application by unilateral employer decision.

For 2022, this support for change will principally be reflected in:

- negotiations on “Job management and career paths”, which will focus on a prospective view of changing jobs under the corporate mission statement, and support for employees who are directly or indirectly affected;
- further bilateral consultation meetings on all the themes in the mission statement, which will continue until 2026, particularly for notification/consultation of the relevant employee representative bodies.

#### — Rethinking RTE’s work organisation and managerial practices

18 months of the Covid-19 pandemic have obliged RTE’s personnel to adapt fast and rethink daily working methods.

The reorganisation constraints highlighted the need, and provided an opportunity, to rethink the company’s managerial practices, the operation of work teams, the use of digital equipment, and management of workspaces, and also consider the flexibility of working hours.

Building on experience gained over the last two years, the surveys conducted and the managerial workshops that took place in the 4<sup>th</sup> quarter of 2021, a negotiation about “New ways of working” will be held in the first half of 2022 to determine the terms of a hybrid mode of work combining time on site or at the office with working from home, and the related working time arrangements.

#### — The lessons of the social diagnosis process

The “social diagnosis” process involving the management and 3 participating trade unions (CFE, FO and CGT), which was initiated to improve the quality of social dialogue and identify ways to achieve that aim, will soon end.

An action plan will be developed from the priorities identified, for implementation in 2022.

#### Collective agreements signed at RTE in 2021

- Agreement for integration, job stability and career prospects for disabled employees.
- Amendment no. 1 to the agreement for coming out of the Covid-19 crisis: HR support and recognition measures [extending working from home arrangements].
- Amendment no. 3 to the working time agreement – special working time and related measures for the teams providing a round-the-clock service in the 24-hour control centres.
- Profit share agreement for 2021-2023.
- Agreement on the additional employer contribution to the PEG/PERCO employee savings and pension plans for 2022-2024.
- Agreement for professional development and integration into the world of work – Work-study programme for 2021-2025.
- Amendment no. 2 to the agreement for coming out of the Covid-19 crisis: HR support and recognition measures [renewal of the sustainable travel allowance].

#### 7.4.4 ENCOURAGING DIVERSITY, EQUAL OPPORTUNITIES AND INCLUSION

##### A COMPANY AMBITION

Beyond its legal obligations, RTE as a company with a public service mission wants to uphold the values of a changing society, and take full Corporate Social Responsibility (CSR). A key component of CSR is a concern for diversity, equal opportunities and inclusion, founded on respect for each employee that is a source of wellbeing at work for the individual, and enhances the appeal and sustainable performance of the company.

This ambition is pursued through three types of action, focusing on equality at work, disability and an “intercultural” theme that covers other matters relating to diversity and inclusion.

##### — Continuing the ambitious policy for gender equality at work

One year on from signing the new agreement on gender equality and the gender balance for the period 2020-2024, the principal actions in 2021 concerned three themes:

- prevention of sexist and sexual violence at work: a role-playing presentation for employees, and awareness-raising/training sessions for managers, HR actors and CSR officers;
- prevention of domestic violence: a guide for social workers and awareness-raising for employees;
- parental services: 25 employees used days off earned for overtime to extend their paternity leave, 6 converted some of their “new baby” bonus into time off, and 93 places in the interfirm creche were allocated.

On 1 March 2021 RTE published its gender balance index, which reached the score of 93/100.

RTE aims to bring about changes in mindsets over time and make sure all employees are treated fairly, while also actively pursuing the objective of having a higher proportion of women in its workforce.

##### Percentage of women in RTE's workforce

2019	2020	2021
22.7%	22.9%	23.3%

Progress may appear slow, but the inertia effect due to the generally low staff turnover at RTE, and a structural effect associated with the technical nature of the company's operational activities, play a part. It should also be noted that the percentage of women in the management committees is still slightly higher than the percentage of women in the company overall.

##### Percentage of women in the management committees

	2019	2020	2021
Percentage of women in management committees	25.4%	23.0%	25.6%

RTE's new Executive Board, formed in 2020, has a majority of women for the first time (three women out of a total five members).

##### — Integration of disabled employees

RTE's 6<sup>th</sup> agreement for integration, retention and career development for disabled employees, covering the period 2021-2023, was signed on 4 March 2021 and approved by the regional department for the economy, work and solidarity on 17 June 2021.

Principal quantitative results:

##### Results for recruitment of disabled employees and integration of disabled work-study students and interns

In 2021, nine disabled employees were hired, close to the target of 10 recruitments. The situation was less favourable for disabled employees on work-study contracts (four hired in 2021) but more favourable for disabled interns (47 in 2021).

##### Transactions with the protected and sheltered sectors

Purchases from the protected and sheltered sectors continued to rise in 2021 and reached a total €2,567,000 (the 2021 target was €2 million, with the ambition of reaching €3 million in 2023).

In more qualitative terms, RTE continues to conduct a number of actions with an internal or external focus:

- participation in the *Hello handicap* recruitment fairs (in April and October 2021);
- publication of five *Handiscuter* newsletters to help change attitudes to disability;
- actions during the European Week for the Employment of People with Disabilities (EWPDP) from 16 to 21 November 2021:

- participation in the DuoDay operation on 18 November 2021: the principle is to pair up able-bodied employees with disabled people who want to clarify their career plans or discover a new field of work,
- on 25 November 2021, a workshop about jobs at RTE was held in the Rhône-Alpes-Auvergne region with the Arpejeh<sup>(1)</sup> association and attended by around twenty young disabled people;
- launch of LEVEL'UP, a fun, educational campaign to raise all employees' awareness of disability issues, concentrating on a particular topic each month.

#### — Action to promote diversity and inclusion

To develop every employee's potential and promote diversity of profiles and cultures in the company, in 2021 RTE added an "intercultural" dimension to its policy on diversity, equal opportunities and inclusion, with a focus on three themes: social and cultural diversity, cross-generational collaboration, and inclusion of diversities. The aim is to be a more welcoming and supportive company for all employees throughout their career, regardless of their gender, age, social and cultural background, and sexual orientation.

The first illustration of this is the new work-study agreement for 2021-2025, which will concern 20 work-study students per year recruited in association with charities, "second chance schools" and other public organisations<sup>(2)</sup> that help young people into work.

The second illustration is the company's anti-discrimination and whistleblowing procedure.

In 2021, the network for quality of life in the workplace distributed a "kit for preventing violence at work" to managers, then employees generally. This kit covers discrimination-related topics and contains a reminder of RTE's system for reporting psycho-social risks, so that all employees can identify the person to contact and the resources available to flag up issues encountered in the course of their work.

RTE also released a short training module designed to be followed in groups, to stimulate reflection by work teams about their practices for integrating new developments.

#### — Reinforcing the fair pay policy

This concerns all of the three previous dimensions.

New employees' initial salaries are set by the recruiters' network, based on rules laying down the "principles for starting salaries". A level of remuneration is defined for each qualification based on its characteristics (type of school/university, work-study training, etc.). The value of experience depends on certain criteria (match for the post, rare skills, and comparison with the market). To ensure fair treatment, each salary offer also takes into consideration the salary paid to the population of existing employees with the same job.

Pay rises and performance-related pay for existing employees are managed and analysed by reference to several criteria for equity, including the employee's category and gender.

#### 7.4.5 THE RTE FOUNDATION AND RTE EMPLOYEES: COMMITMENT FOR RURAL AREAS

Since 2008, the RTE Foundation has offered employees the chance to sponsor rural area projects co-funded by the company. In 2021, 39 projects were funded, with grants of close to €1 million and investments of €5 million: they supported 320 jobs, and 75% were sponsored.

Since 2008, the 400 sponsors from RTE have embodied the company's values of openness, dedication and solidarity with rural areas. Their task is to help the Foundation to monitor the project's implementation, notably verifying that the funding is used as intended, and report on progress to the entities in charge, as an ambassador of the RTE Foundation.

The Foundation fosters cooperation between local public and private-sector actors to enhance the impact of these projects. It also aims to develop new forms of collective impact, through coordinated intervention with other foundations.

As a laboratory for social innovation, the RTE Foundation also contributes to reflection, experimentation, capitalisation, action research, and implementation of innovative multi-actor, inter-area cooperation projects to benefit the rural world.

(1) *Accompagner la réalisation des projets d'études de jeunes élèves et d'étudiants handicapés.*

(2) *Écoles de la 2<sup>e</sup> chance and Missions locales pour l'emploi.*

Finally, the Foundation is diversifying its support for rural associations, by offering non-financial support as well as grants. For example, it proposes to draw up their carbon footprint assessments, and launched the 3<sup>rd</sup> RTE Foundation workshops for associations that take up this offer.

#### 7.4.6 ENCOURAGING ENGAGED CITIZENSHIP

RTE wants to grow its skill sponsorship practice that allows employees to engage with and support causes for the public good during their working time.

This option is offered by the company to develop solidarity and promote active citizenship in each employee, including through voluntary work.

##### — A programme that benefits everyone

- Employees who voluntarily participate in skill sponsorship refresh their motivation and have new opportunities to develop their adaptability and skills.
- The benefiting associations gain experience, an outside view, and the enthusiasm of assistance provided pro bono.
- The company fully plays its role as a corporate citizen of society, and can benefit from incentives provided by law.

Skill sponsorship provides a way to coordinate, lead and amplify occasional actions already undertaken at RTE (see below).

##### — September 2021: a milestone in skill sponsorship

The COMEX validated RTE's ambition to pursue a skill sponsorship dynamic through experiments due to be launched from 2022 in the Nord and Auvergne-Rhône-Alpes regions, and in the central functions.

Feedback from these experiments will be used to establish an approach, assess employee adherence, adapt communication levers, and fine-tune the roles needed to promote and energise the approach nationwide.

Subsequently, the system will be generalised and offered to all RTE employees, probably through a future CSR agreement.

##### — Review of action in 2021

Despite the Covid pandemic, RTE employees continued to undertake volunteer missions of all kinds for

the charity *Électriciens Sans Frontières* (Electricians without Borders), the *Institut de l'engagement* (Commitment Institute), the RTE Foundation, France's voluntary fire brigade, the French Armed Forces Ministry's military reserve force, and the "SQUAD Emploi" employment assistance agency in the North of France.

These volunteers made a practical contribution to generalising access to energy, supporting young people on their way into employment, fostering solidarity between geographical areas, supporting the military reserve forces, and helping their fellow citizens.

##### Commitment Institute

The *Institut de l'engagement* (Commitment Institute) is a French charity created in connection with the national volunteer service (*Service civique*) to offer young people engaged in volunteer work a future commensurate with their high potential, regardless of their social, geographical, educational or cultural background. Every year it advises nearly 3,000 young people and helps them structure their plans for the future.

RTE renewed its three-year partnership with the Commitment Institute at the end of 2020, with a commitment to make financial, human and practical contributions to its campaigns (for example allowing the Institute's decision panels to use RTE premises). RTE also contributes to funding for the Commitment campus.

RTE employees take part in examination and evaluation of the projects submitted, participation in the guidance and admission interviews, sponsorships, and leading workshops for the successful candidates.

In 2021, 31 RTE employees assessed 264 potential projects, 12 employees took part in the decision panels, and 126 young people received advice and assessments.

##### France Active

*France Active* is a charity network with local branches all over France, formed to help people in difficulty set up their own business or find employment.

In 2021, RTE continued its commitment to promoting employment together with this charity for the fourth year running, by adding 200% to every donation by an RTE employee to the *Cap'Jeunes* programme run by *France Active*, which supports and funds business creation projects by young people under 26 who are unemployed or in a precarious situation.



### Authenti-Cité

RTE is continuing its collaboration begun in 2020 with association *Authenti-Cité*, which supports families in the Pablo Picasso district of Nanterre just outside Paris by giving them help with schoolwork, assistance with administrative paperwork, and training in the use of digital equipment. Several projects are in progress:

- to reduce the technological inequality affecting this district and give a “second life” to IT equipment, RTE has promised to make an annual donation of ten computers a year for three years;
- in parallel, RTE employees volunteer to help children in difficulty with their schoolwork, outside their working time.

In 2021 RTE reinforced its action, by:

- donating books;
- taking middle-school students for short internships;
- contributing to the “Christmas solidarity” operation by collecting presents for the most underprivileged families.

Finally, hiring of seasonal workers from this district for summer 2022 is currently being organised.

### Électriciens sans frontières

RTE’s support for the charity *Électriciens Sans Frontières* (ESF) is another offshoot of the company’s values of solidarity and citizenship. RTE has chosen to support work that meets vital needs, with a particular focus on access to energy and water.

In addition to short-term assistance, RTE signed a long-term sponsorship deal in 2021, sending one RTE employee as a general delegate to ESF for two years.

## 7.5 GREEN TAXONOMY

### — Key points and background

The **Taxonomy Regulation** adopted in June 2020 by the European Parliament and Council sets out classification criteria to define what makes an economic activity environmentally sustainable, establishing six environmental objectives:

- climate change mitigation;
- climate change adaptation;
- the sustainable use and protection of water and marine resources;

- pollution prevention and control;
- the transition to a circular economy;
- the protection and restoration of biodiversity and ecosystems.

According to two delegated acts published in April 2021 providing further information on the 2 climate objectives, electricity transmission makes a substantial contribution to climate change mitigation, particularly through development of interconnections between European countries and connection of renewable energies.

The delegated acts for the Taxonomy Regulation list the economic activities that can make a substantial contribution to every environmental objective. These “eligible” activities define a scope of activity that will then be analysed in more detail to verify that they meet the technical criteria required by the Regulation to qualify as “aligned”.

Article 8 of the European Taxonomy Regulation, which will be covered by a delegated act defining the terms of application, introduces **transparent reporting obligations**.

For 2021, RTE is required to disclose information about its eligible activities as defined by the European Union’s green taxonomy<sup>(1)</sup>, corresponding to the first two sustainable development objectives:

1. reducing CO<sub>2</sub> emissions;
2. protecting the economy against the effects of climate change.

At 31 December 2021, the Regulation thus requires disclosure of three key performance indicators that reflect the 2021 contribution to activities that are eligible for the European Taxonomy:

- sales revenues;
- operating expenditure;
- capital expenditure.

### — Eligible activities

Eligible activities are activities that contribute to the first two green objectives defined by the European Union.

A list of these activities by sector is given in the delegated act<sup>(1)</sup>.

(1) The Climate Delegated Act released on 21 April 2021 – the activities are listed in Annex I (climate change mitigation) and Annex II (climate change adaptation).



In accordance with the Taxonomy Regulation, the RTE Group has identified the portion of its activities that are eligible as contributing to the climate change mitigation and adaptation objectives.

**Electricity transmission** is one of the taxonomy-eligible activities (paragraph 4.9 Transmission and Distribution of Electricity of the Technical Annex II to the regulation). It is defined in the annex as "Construction and operation of transmission Systems that transport the electricity on the extra high-voltage and high-voltage interconnected System".

Electricity transmission is the sole activity of RTE SA, and the principal activity of the RTE Group (see note 5 to the consolidated financial statements, Segment reporting). The Group considers that all transactions generated by RTE SA contribute to this eligible activity.

RTE SA makes the dominant contribution to the Group's consolidated financial statements, and analysis of the other group entities' eligibility will be continued in 2022.

#### — Key performance indicators

The key performance indicators presented below correspond to RTE SA's contribution, net of in-tragroup transactions, to the RTE Group financial statements under IFRS, restated as explained for each item.

##### Sales revenues: 98.4%

Sales revenues do not include income related to subsidies for assets (restated under IFRS 15<sup>(1)</sup>).

##### Operating expenditure: 99.6%

Operating expenditure includes expenses related to the activity of electricity system operation, other external purchases, personnel expenses and operating taxes.

This indicator is presented net of capitalised production, which is included in capital expenditure.

##### Capital expenditure: 99.9%

Capital expenditure comprises investment expenses during the year for the scope of the parent company RTE's tangible and intangible assets, including borrowing costs directly attributable to development of qualifying assets (application of IAS 23<sup>(2)</sup>).

##### — Future reporting dates<sup>(3)</sup>

It is currently planned to report on aligned activities for the first two environmental objectives stated above from the 2022 financial year, and for the last four objectives from 2023.

Also from 2023, the Corporate Sustainability Reporting Directive (CSRD) will apply, reinforcing obligations to disclose non-financial information in the management report.

(1) See note 2.7 to the 2021 consolidated financial statements.

(2) See note 2.13 to the 2021 consolidated financial statements.

(3) Plans not finalised at the time of writing this report.



8. ■

**Economic  
and financial  
performance**

## 8.1 ECONOMIC ENVIRONMENT<sup>(1)</sup>

After 2020, a year marked by the start of the Covid-19 pandemic that went on to affect the whole world, economic activity and international trade recovered in 2021.

Adjusted electricity consumption<sup>(2)</sup> in mainland France (including Corsica) totalled 468 TWh in 2021, up by 1.7% from 2020 (460 TWh<sup>(3)</sup>). This clear increase is attributable to the recovery of economic activity after the impact in 2020 of the beginning of the Covid-19 crisis.

Consumption by customers directly connected to the public transmission network increased by 8.2%. In the steel and rail transport sectors, which were significantly affected by the Covid-19 pandemic in 2020, consumption rose by 22% and 12% respectively.

The highest peak in electricity consumption in 2021 was 88.4 GW at 9.30 a.m. on 11 January (compared to 83.2 GW at 7 p.m. on 22 January in 2020). This is close to the 2019 peak (88.5 GW on 24 January), and below the record registered in 2012 (101.87 GW on 8 February).

The year's lowest level of electricity consumption was 29.76 GW, on 8 August at 7 p.m., close to the lowest level in 2020 (29.1 GW). This low point occurred in August as in most previous years, whereas in 2020 it occurred in May as a result of the national lockdown.

Total electricity output in France was 522.9 TWh in 2021, up by 4.5% from 2020.

Nuclear power generation increased by 7.5% (25 TWh) from 2020, accounting for 69% of total output. Fossil-fired power generation was up by 2.8% to 7.4% of total output. Renewable energy generation made up nearly 23% of total output, and was down slightly from 2020, in varying proportions depending on the source: wind power decreased by 7.2% (-3 TWh) despite the expanding fleet, solar power increased by 12.6% (+1.6 TWh) and hydro-power decreased slightly by 4.5% (-3 TWh).

The generation fleet capacity in mainland France saw a larger increase in 2021 (+2.5%, compared to +0.5% in 2020) to reach 139.6 GW. This increase resulted from a significant rise of 26% (2.7 GW) in solar power capacity, and a smaller 7% (1.2 GW) increase in wind power capacity. Meanwhile coal-fired generation was significantly reduced (39%) and accounted for 2.1% of the entire generation fleet.

The balance of cross-border power exchanges in 2021 was down slightly by some 100 GW from 2020 (43.1 TWh against 43.2 TWh in 2020). The volume of exports was 87.1 TWh (compared to 77.8 TWh for the whole of 2020) and the volume of imports was 44.0 TWh (34.6 TWh for the whole of 2020).

France remained a net power exporter except to the CWE<sup>(4)</sup> zone. In the summer, nuclear fleet availability drove export volumes upwards, then from mid-October import volumes rose until the balance was -1.11 TWh. From November, France was a net importer across the British and Spanish borders.

The interconnector between France and Great Britain, with 1 GW capacity, was put into operation on 22 January 2021.

(1) The figures for 2021 are not final at the publication date of this management report. The final figures for 2021 will be known during 2022 and published in RTE's Electricity report.

(2) Adjusted consumption is consumption corrected for weather effects, by reference to the standard temperature.

(3) The final consumption figure for 2020 published in RTE's Electricity report.

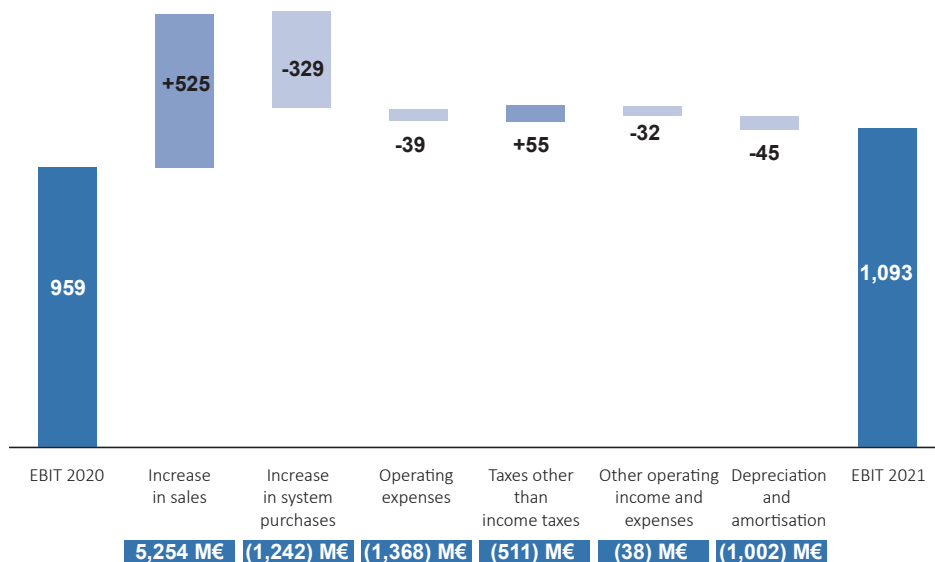
(4) Central West Europe, a region consisting of France, Belgium, Germany, Luxembourg, Austria and the Netherlands where market prices for electricity have been coupled since 2010.

## 8.2 RESULTS, EBIT AND FINANCIAL STRUCTURE

These results are presented under IFRS.

### 8.2.1 BUSINESS AND RESULTS IN 2021

#### 8.2.1.1 Change in EBIT: +€135 million



RTE's EBIT for 2021 was up by €135 million (+14%) from 2020, and totalled €1,093 million.

The explanations for this increase concern the items presented below.

RTE's sales for 2021 amounted to €5,254 million compared to €4,729 million in 2020.

The **€525 million (+11%) increase in 2021** is the result of the following combined effects:

- Network access income (withdrawals and injections) was up by €265 million (+7%) to €4,338 million. This increase was principally due to the

weather effect which was favourable overall to RTE in 2021, leading to a higher level of withdrawals by distributors. A positive structural effect was also observed relating to the business recovery of 2021 after the impacts of the Covid-19 pandemic in 2020.

The increase in sales was mitigated by reductions for electro-intensive direct customers<sup>(1)</sup>, and to a lesser degree by the impact of tariff adjustments<sup>(2)</sup> introduced in 2020 and 2021.

- Income from interconnections increased by €238 million (+44%) to €784 million. This income includes:

(1) Decree 2021-420 of 10 April 2021 modifying the regulatory part of the Energy Code concerning the reduction of the TURPE network access tariff for use of the public transmission network by sites that are large consumers of electricity. The reduction rates are higher in the new decree, leading to bigger allowances and thus lower sales revenues.

(2) As RTE is a regulated monopoly, network access income does not correspond to a market price but results from the TURPE tariff for use of the public electricity transmission network, which is set in a regulation issued by the French electricity market regulator CRE, an independent administrative authority.

Following the CRE's decision of November 2016 defining the rules for the new TURPE 5 tariff which took effect on 1 August 2017, the hourly/seasonal adjustments in the tariff were reinforced. The subsequent tariff rises decided by the CRE were -1.08% from 1 August 2020 (full-year effect in 2021) and +1.09% from 1 August 2021.

- capacity revenues from interconnections, which are based on price differentials between national electricity markets, and were €341 million higher in 2021 than 2020;
- the sale of interconnection capacity guarantees via the EPEX market, generating a net profit of €155 million, down by -€109 million from 2020.
- Income from services was up by €21 million to €133 million, notably due to resumption in 2021 of relocation, undergrounding and modification work for network facilities, which had been significantly affected by the Covid-19 pandemic in 2020.

The total amount of electricity system operation purchases was **€1,242 million** in 2021, an increase of **€329 million** from 2020, notably due to the following effects:

- the higher cost of system services, due to an unfavourable price effect in comparison to 2020 (+€207 million);
- the higher cost of electricity purchases to compensate for network losses, reflecting higher market prices overall (+€66 million);
- a €39 million increase in congestion costs, i.e. the surplus costs generated by output adjustments in response to operating constraints on the internal network or interconnection lines. This increase is principally attributable to a price effect;
- higher load shedding costs (+€14 million) and charges related to interruptible load contracts (+€17 million), mainly reflecting the outcomes of tenders for both these mechanisms.

**Operating expenses** rose by €39 million from 2020 to **€1,368 million**.

The main changes in these expenses concerned:

- **other purchases and services**<sup>(1)</sup> (€627 million in 2021), which were up by €55 million from 2020, notably due to the resumption of normal economic activity;
- **net personnel expenses**<sup>(2)</sup> (€741 million in 2021) were down by €16 million. This decrease is principally explained by an increase in the capitalised share of labour costs.

**Other operating income and expenses** generated a **net expense of €38 million** in 2021, compared to a net expense of €6 million in 2020. The principal components of the **€32 million** change are the positive change in the CSPE<sup>(3)</sup> subsidy (+€14 million, with a neutral impact on the income statement) and insurance reimbursements that had no equivalent in 2020 (+€12 million), offset by expropriation indemnities (-€10 million) in 2020 that had no equivalent in 2021, and an increase in provisions for receivables and risks following sales of assets (-€50 million).

**Taxes other than income taxes** totalled **€511 million**, a decrease of **-€54 million** from 2020. This change is primarily explained by the fact that the rate of local taxes applicable (land tax, the business taxes *Cotisation foncière des entreprises* and *Cotisation sur la Valeur ajoutée*) was halved in 2021 (**-€64 million**, offset by a tax rate scale effect of **+€10 million** on the pylon tax and the tax on network companies (IFER).

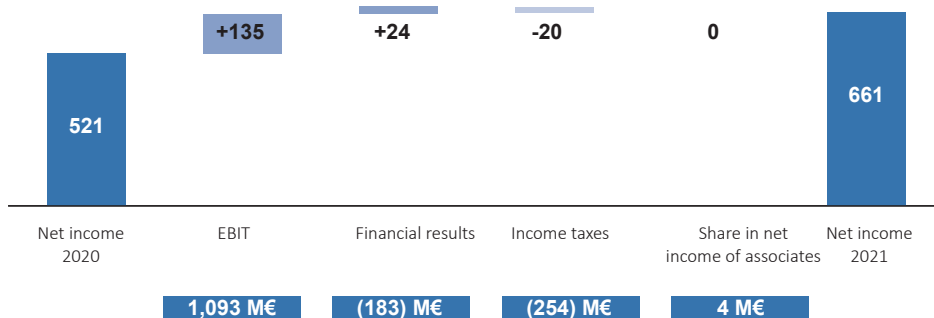
**Depreciation and amortisation** amounted to **€1,002 million**, up by €45 million from 2020 as a result of the commissioning of significant investments in the early part of 2021.

(1) Reported net of the portion allocated to investments.

(2) The definition used also covers net increases to provisions for employees (for long-term and post-employment benefits, the employer's contribution to profit sharing on behalf of employees, etc.). This item is also reported net of the portion allocated to investments.

(3) In 2018, the cost of load-shedding contracts ceases to be financed by the variance adjustment account and began to be covered by the contribution to the public electricity service (CSPE) levy. This CSPE funding is classified as an operating subsidy and presented in other operating income and expenses. Consequently, the net impact on profit is neutral.

## 8.2.1.2 Change in net income: +€140 million



In 2021, the **net income increased by €140 million** from 2020 and stood at **€661 million**.

The **financial result** was a **net expense of -€183 million**: financial expenses were €24 million lower than in 2020, mainly due to lower interest on borrowings (-€22 million).

**Income taxes totalled €254 million** for 2021, compared to €234 million in 2020, an increase of €20 million due notably to the higher pre-tax income (+€159 million) and the decrease in the effective tax rate, from 32.02% at 31 December 2020 to 28.41% at 31 December 2021 (in application of France's finance law for 2021).

## RTE Group income statement under IFRS at 31 December 2021

(in millions of euros)	2021	2020	Change 2021-2020
<b>Sales</b>	<b>5,254</b>	<b>4,729</b>	<b>525</b>
Network access: withdrawals	4,214	3,955	258
Network access: injections	124	117	7
Network access: interconnections	784	546	238
Other services	133	111	21
System purchases	(1,242)	(912)	(329)
Operating expenses	(1,368)	(1,330)	(39)
Other net purchases	(627)	(573)	(55)
Net personnel expenses	(741)	(757)	16
Taxes other than income taxes	(511)	(565)	55
Other operating income and expenses	(38)	(7)	(32)
<b>EBITDA</b>	<b>2,095</b>	<b>1,915</b>	<b>180</b>
Net depreciation and amortisation	(1,002)	(956)	(45)
<b>EBIT</b>	<b>1,093</b>	<b>959</b>	<b>135</b>
Financial result	(183)	(207)	24
<b>Consolidated profit before tax</b>	<b>911</b>	<b>752</b>	<b>159</b>
Income tax	(254)	(234)	(20)
Share in income of associates	4	4	0
<b>NET INCOME</b>	<b>661</b>	<b>521</b>	<b>140</b>

### Reconciliation between RTE's net income under IFRS and RTE SA's net income under French GAAP

(in millions of euros)	2021	2020
<b>RTE net income under IFRS</b>	<b>661</b>	<b>521</b>
Impact of subsidiaries, net of intragroup transactions	(5)	(4)
Impact of intragroup transactions via profit and loss <sup>(1)</sup>	4	3
Impact of differences in accounting treatment under French GAAP and IFRS	(133)	(86)
<b>RTE SA net income under French GAAP</b>	<b>527</b>	<b>434</b>

(1) Corresponding to elimination of internal dividends.

### 8.2.1.3 Changes in the return on capital employed and return on equity

#### Key figures for RTE under French GAAP

(in millions of euros)	2021	2020
<b>Income statement</b>		
Sales	5,186	4,672
EBIT	984	848
Financial result	-201	-226
Net income	527	432
<b>Balance sheet</b>		
Economic assets at 1 January	16,895	16,330
Fixed assets at 31 December		
gross	37,201	35,687
depreciation and amortisation	18,090	17,259
net	19,111	18,428
Equity at 31 December	7,793	7,412
Net indebtedness (gross indebtedness adjusted for cash)	9,664	9,642
ROCE	5.8%	5.2%

Based on **RTE's individual financial statements** under French GAAP<sup>(1)</sup>, the **return on capital employed (ROCE)**<sup>(2)</sup>, calculated as the ratio of EBIT to capital employed by RTE for its business activity, was 5.8% for 2021, higher than in 2020.

This percentage can be compared to the normative ROCE defined for the TURPE tariff (4.6%), from which 0.6% is deducted for all the reductions allowed for in the tariff decision, i.e. 4.0%. The excess

return of 1.8% is partly due to timing differences (1.2% for clearing regulation accounts and 0.5% for smoothing of network access income), and durable effects (0.1%).

The **return on equity (ROE)**<sup>(3)</sup>, calculated as the ratio of net income to equity, was 11.3% (compared to 9.2% in 2020).

(1) This basis for calculation is used to ensure consistency with the terms of calculation for the TURPE tariffs, which are based solely on RTE's financial statements under French GAAP.

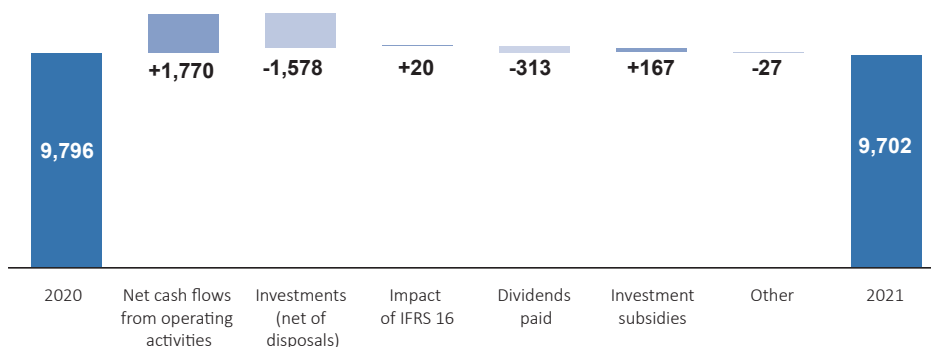
(2) To remain coherent with the regulator's view, EBIT for the year is divided by the economic assets as reported in the balance sheet at 1 January of the year concerned.

(3) Return on equity is calculated for the RTE Group based on financial statements under IFRS, using the equity value at 31 December.



## 8.2.2 FINANCING

### Decrease in net indebtedness: -€94 million



The year-on-year decrease in RTE's net indebtedness is explained by:

- net cash flows from operating activities<sup>(1)</sup>, which generated income of €1,770 million;
- investments net of disposals, totalling €1,578 million. The amount of investment expenditure for 2021 concerning the scope of activities regulated by the CRE was €1,578 million (see table below);

- the lease liability recognised under IFRS 16, which decreased by €20 million in 2021;
- dividend payments out of 2020 profits, totalling €313 million;
- investment subsidies activated, amounting to €167 million.

### Investment expenditure approved by the CRE

(in millions of euros)	2021	2020
<b>Categories</b>		
Network	1,369	1,279
Major transmissions and interconnections	214	314
Regional networks	1,155	965
Information systems	155	161
Logistics	53	89
<b>TOTAL INVESTMENTS FOR THE SCOPE REGULATED BY THE CRE<sup>(1)</sup></b>	<b>1,578</b>	<b>1,529</b>

(1) Excluding disposals.

(1) Net cash flows from operating activities include the free cash flow and the change in working capital.

### 8.2.3 FINANCIAL STRUCTURE

Equity amounted to €5.850 billion at 31 December 2021.

Net indebtedness stood at €9.702 billion at 31 December 2021: €11.110 billion of financial indebtedness, less cash and short-term financial assets amounting to €1.408 billion.



(1) Investments net of disposals for the Group at 31 December 2021.

NB: Figures for the RTE Group comply with IFRS, except for the return on capital employed which is calculated based on the parent company RTE's individual financial statements under French GAAP, for reasons of comparability with regulation parameters.

The gearing (net financial indebtedness/equity) decreased, from 1.73 at the 2020 year-end to 1.66 at the 2021 year-end.

### 8.3 OUTLOOK FOR 2022

The TURPE 6 network access tariff is adjusted annually at the anniversary date: it was raised by +1.09% at 1 August 2021 when the tariff first took effect, and will be followed by further adjustments on 1 August in the years 2022 to 2024 based on forecast inflation, an annual factor of 0.49%, and a correcting factor to balance the income and expenses adjustment account (CRCP). The tariff change of 1 August 2022 will be determined by the CRE based on forecast inflation for 2022 and variances in 2021 on items eligible for the CRCP.

RTE's gross investment budget approved by the CRE for 2022 is €1,858 million, €280 million more than the actual investments made in 2021, which totalled €1,578 million.

This increase is explained by the step-up in connections for offshore wind farms (principally the Saint Brieuc, Calvados, and Dieppe-Le Tréport projects). Digitisation expenses, particularly for renewal of substation command and control equipment, are set to rise, as are expenses for connections (particularly for the Datacentre) and upgrading. The 2022 investment budget also includes €177 million for information systems and €100 million for real estate and mobile assets, in line with the amounts referred to for the TURPE 6 tariff decision. Both these amounts are regulated separately from the budgets for other types of investment.

In recent years the French State has clarified its framework for achieving carbon neutrality by 2050 (the National Low Carbon Strategy) and raising the share of renewable energies in the country's electricity generation mix to 40% by 2030 (the multi-year energy plan). It is now accepted that the roads to carbon neutrality will involve large-scale electrification of the economy in order to avoid use of fossil fuels, and that dependence on renewable-source electricity will increase. The electricity networks are an essential factor in the feasibility of this transition.

RTE's investment strategy therefore takes account of the expansion of renewable energies, and the fact that its network is ageing. The network must be structurally adapted to incorporate the new forms of renewable energy generation, and digitised to integrate the flexibility necessary for network operation; also, renewal of the network must now be a priority.

Apart from these considerations, RTE's prospects remain subject to weather effects, electricity generation plans (which affect the volumes of electricity withdrawn, network losses, congestion and damage), movements in electricity prices (which affect expenses incurred to cover network losses, balancing reserves and income from interconnections), long-term discount and inflation rates, capacity guarantee prices, and the general economic climate.

## 8.4 DETAILS OF SUBSIDIARIES

### 8.4.1 SUBSIDIARIES AND INVESTMENTS AT 31 DECEMBER 2021

(in thousands of euros) Company	Share capital	Gross value of shares owned	Impairment	% of capital owned directly by RTE	Loans and advances <sup>(1)</sup>	Sales	Equity	Net income	Dividends received in 2021
ARTERIA	650	650	-	100%	-	11,402	15,830	2,110	450
RTE International <sup>(2)</sup>	2,000	2,000	-	100%	2,000	15,233	5,662	1,962	-
AIRTELIS	10,000	10,000	-	100%	8,000	17,484	17,266	-143	-
RTE IMMO	763	6,865	-	100%	-	-	6,891	-18	-
IFA 2	500	250	-	50%	-	55	465	32	-
CIRTEUS	2,575	2,575	-	100%	-	13,221	8,426	911	200
HGRT	52,119	20,854	-	34%	-	-	91,441	10,877	3,740
CORES0	1,000	159	-	16%	-	24,564	4,467	728	-
INELFE	2,000	1,000	-	50%	-	11,026	16,801	83	-
CELTIC INTERCONNECTOR	100	50	-	50%	490	21	109	2	-
JAO	NA	65	-	5%	-	NA	NA	NA	NA
DECLARANET	NA	882	-	12%	132	NA	NA	NA	NA

NA: Information not available.

(1) Made by RTE and still outstanding.

(2) RTE International has three fully-owned subsidiaries, RTE Netherlands, Bluestork and Redstork.

RTE comprises the parent company RTE, five subsidiaries which are directly fully-owned by RTE and fully consolidated, two jointly-controlled companies (Inelfe and IFA2, consolidated as joint operations) and two companies in which RTE exercises significant influence (HGRT and CORESO, associates), which are accounted for by the equity method. RTE also holds investments in three other companies, JAO, Declaranet and Celtic Interconnector.

The activities of RTE's subsidiaries are described in section 2.1 "History of RTE".

## 8.5 OTHER FINANCIAL INFORMATION

### 8.5.1 SUBSEQUENT EVENTS

None.

### 8.5.2 INFORMATION ON SETTLEMENT OF SUPPLIER AND CUSTOMER INVOICES (ARTICLE L. 441-6-1 OF THE FRENCH COMMERCIAL CODE)

In application of the "LME" law, amended by law 2015-990, for growth, economic activity and equal economic opportunities, RTE reports below its amounts payable and receivable (including taxes) due at the year-end. These amounts are presented by maturity and as a percentage of the purchases and sales of the year (including taxes).

(in thousands of euros)	Article D.441 I.- 1 : invoices received unpaid and due or overdue at the year-end year date						Article D.441 I.-2 : invoices issued unpaid and due or overdue at the year-end year					
	0 days	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total	0 days	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total
<b>(A) Period overdue</b>												
Number of invoices	83					1,435	16					1,120
Total amount of invoices (incl. VAT)		5,965	779	161	5,887			(16,280)	13,161	2,232	11,802	
% of the total amount of purchases of the year		0.30%	0.04%	0.01%	0.29%							
% of the total amount of sales of the year (incl. VAT)								-0.26%	0.21%	0.04%	0.19%	
<b>(B) Invoices excluded – payables and receivables in dispute or unrecognised</b>												
Number of invoices excluded						0						0
Total amount of invoices excluded (incl. taxes)						0						0
<b>(C) Reference payment terms applied (contractual or statutory)</b>												
Payment terms used to calculate periods overdue						Contractual deadlines						Statutory deadlines

The credit balance of receivables due is explained by the amount concerning the JAO (Joint Allocation Office).

The JAO, a market actor, is the single entity in charge of implementing and running auctions for annual, monthly and daily energy transmission capacities on shared borders. It is an operator of explicit interconnection capacity auctions and is active in some fifteen countries on behalf of 27 electricity transmission system operators.

Every month, RTE records all invoices for month M-1 and receipts for month M on interconnections managed by the JAO as intermediary. Customer accounts due within 30 days can thus show a credit or a debit at the year-end, depending on fluctuations in exchanges via the interconnections.

#### **8.5.4 NON-DEDUCTIBLE EXPENSES CONCERNED BY ARTICLE 39-4 OF THE FRENCH TAX CODE**

The amount of non-deductible expenses concerned by article 39-4 of the French Tax Code was €749,111 in 2021.

#### **8.5.5 STATUTORY AUDITORS**

As a result of the transposition of Directive 2009/72/CE and in accordance with article L. 111-15 of the French Energy Code, RTE's individual financial statements must be certified by at least one auditor who does not certify the financial statements of any other party to the Vertically Integrated Enterprise as defined by the regulator in the decision of 11 January 2018 concerning certification of RTE, or the consolidated financial statements of such an entity.

To ensure compliance with this requirement, article 20 of RTE's bylaws requires such auditors to submit a document, prior to their appointment by the shareholders and subsequently each year before the General Shareholders' Meeting called to approve the annual financial statements, declaring whether or not they audit the financial statements of another party to the Vertically Integrated Enterprise.

RTE's statutory auditors are the two firms Mazars and KMPG.

Mazars, represented in the person of its partner, is designated as the Statutory Auditor that meets the requirement in article 20 of RTE's bylaws to have at least one audit firm that is independent of the Vertically Integrated Enterprise.

9.

**Consolidated  
financial  
statements at  
31 December  
2021**

## CONSOLIDATED INCOME STATEMENT

(in thousands of euros)	Notes	2021	2020
<b>Sales</b>	<b>6</b>	<b>5,254,036</b>	<b>4,729,058</b>
Energy purchases	7	(549,943)	(499,512)
Other external expenses	8	(1,126,188)	(818,991)
Personnel expenses	10	(933,808)	(923,508)
Taxes other than income taxes	11	(510,826)	(565,472)
Other operating income and expenses	12	(38,404)	(6,742)
<b>Operating profit before depreciation and amortisation</b>		<b>2,094,866</b>	<b>1,914,832</b>
Net depreciation and amortisation		(1,001,548)	(956,299)
Other income and expenses			
<b>Operating profit</b>		<b>1,093,317</b>	<b>958,533</b>
Cost of gross financial indebtedness		(147,681)	(169,815)
Discount effect		(21,233)	(26,653)
Other financial income and expenses		(13,622)	(10,481)
<b>Financial result</b>	<b>13</b>	<b>(182,536)</b>	<b>(206,949)</b>
<b>Consolidated profit before tax</b>		<b>910,781</b>	<b>751,584</b>
Income taxes	14	(253,626)	(234,035)
Share in net income of associates	17	3,936	3,622
<b>CONSOLIDATED NET INCOME</b>		<b>661,091</b>	<b>521,171</b>
net income attributable to non-controlling interests		(25)	0
RTE net income		661,066	521,171
<b>Earnings per share (RTE share) in euros</b>		<b>3.10</b>	<b>2.44</b>



## STATEMENT OF NET INCOME AND GAINS AND LOSSES RECORDED DIRECTLY IN EQUITY

(in thousands of euros)	2021	2020
<b>Consolidated net income</b>	<b>661,066</b>	<b>521,171</b>
<b>Net income attributable to non-controlling interests</b>	<b>25</b>	
Gross change in fair value of financial assets <sup>(1)</sup>	(932)	(1,176)
Related tax effect	210	119
<i>Change in fair value of financial assets</i>	<i>(722)</i>	<i>(1,056)</i>
Gross change in fair value of hedging instruments <sup>(2)</sup>		354
Related tax effect		(105)
<i>Change in fair value of hedging instruments</i>	<i>0</i>	<i>249</i>
<b>Gains and losses recorded directly in equity that will be reclassified subsequently to profit or loss</b>	<b>(722)</b>	<b>(807)</b>
Gross change in actuarial gains and losses on post-employment benefits	(214,799)	(249,720)
Related tax effect	54,332	62,208
<i>Change in actuarial gains and losses on post-employment benefits</i>	<i>(160,467)</i>	<i>(187,512)</i>
<b>Gains and losses recorded directly in equity that will not be reclassified subsequently to profit or loss</b>	<b>(160,467)</b>	<b>(187,512)</b>
<b>Total gains and losses recorded directly in equity</b>	<b>(161,188)</b>	<b>(188,319)</b>
<b>NET INCOME AND GAINS AND LOSSES RECORDED DIRECTLY IN EQUITY</b>	<b>499,902</b>	<b>332,852</b>

(1) These changes principally correspond to the effects of fair market valuation of negotiable debt instruments with maturity of over three months at the date of acquisition.

(2) In 2006 and 2011, the Group contracted financial instruments as pre-hedges to cover the interest rate risk associated with two highly probable bond issues. The balancing payments due upon termination of these hedges are spread over the residual duration of the hedged bond drawing. 2021 was the last year of this period.

## CONSOLIDATED BALANCE SHEET

Assets (in thousands of euros)	Notes	2021	2020
Intangible assets	15	490,855	430,238
Property, plant and equipment	16	18,926,174	18,398,896
Investments in associates	17	32,044	32,016
Non-current financial assets	18	15,217	13,789
Deferred tax assets	14	401,583	327,974
<b>Non-current assets</b>		<b>19,865,873</b>	<b>19,202,913</b>
Inventories	19	133,529	147,098
Trade and similar receivables	20	1,703,833	1,183,906
Current financial assets	18	1,192,187	1,963,069
Current tax assets		293	581
Other receivables	21	312,597	211,720
Cash and cash equivalents	22	215,930	193,269
<b>Current assets</b>		<b>3,558,369</b>	<b>3,699,644</b>
<b>TOTAL ASSETS</b>		<b>23,424,242</b>	<b>22,902,556</b>

Equity and liabilities (in thousands of euros)	Notes	2021	2020
Share capital	23	2,132,286	2,132,286
RTE net income and consolidated reserves		3,717,874	3,522,851
<b>Equity – RTE share</b>		<b>5,850,160</b>	<b>5,655,136</b>
Equity – non-controlling interests		57	0
<b>Total equity</b>		<b>5,850,217</b>	<b>5,655,136</b>
Non-current provisions	24	2,421,795	2,139,389
Non-current financial liabilities	25	9,822,056	10,573,961
<b>Non-current liabilities</b>		<b>12,243,851</b>	<b>12,713,350</b>
Current provisions	24	110,340	132,646
Trade and similar payables	28	1,552,869	915,522
Current financial liabilities	25	1,288,050	1,378,472
Current tax liabilities		606	525
Other liabilities	28	2,378,308	2,106,905
<b>Current liabilities</b>		<b>5,330,174</b>	<b>4,534,070</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>23,424,242</b>	<b>22,902,556</b>

**CONSOLIDATED CASH FLOW STATEMENT**

(in thousands of euros)	2021	2020
<b>Operating activities</b>		
<b>Consolidated profit before tax of consolidated companies</b>	<b>910,781</b>	<b>751,584</b>
Depreciation and amortisation, provisions and changes in fair value	996,645	961,774
Dividends received from entities accounted for by the equity method	3,820	3,400
Financial income and expenses	161,383	180,296
Gains and losses on disposal of assets	51,293	23,751
Change in working capital	116,574	(159,208)
<b>Net cash flow from operations</b>	<b>2,240,496</b>	<b>1,761,597</b>
Net financial expenses disbursed	(203,506)	(193,185)
Income taxes paid	(266,505)	(215,554)
<b>Net cash flow from operating activities</b>	<b>1,770,485</b>	<b>1,352,859</b>
<b>Investing activities</b>		
Acquisitions of property, plant and equipment and intangibles	(1,579,591)	(1,532,105)
Disposals of property, plant and equipment and intangibles	3,047	47,743
Changes in financial assets	769,994	(654,312)
<b>Net cash flow used in investing activities</b>	<b>(806,549)</b>	<b>(2,138,674)</b>
<b>Financing activities</b>		
Issuance of borrowings	2,994,998	6,717,181
Repayment of borrowings	(3,780,971)	(5,618,010)
Dividends paid	(312,703)	(408,553)
Investment subsidies	166,663	131,358
<b>Net cash flow from financing activities</b>	<b>(932,012)</b>	<b>821,976</b>
Financial income on cash and cash equivalents	(9,264)	(3,727)
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>22,661</b>	<b>32,433</b>
Cash and cash equivalents – opening balance	193,269	160,836
<b>CASH AND CASH EQUIVALENTS – CLOSING BALANCE</b>	<b>215,930</b>	<b>193,269</b>

## CHANGES IN CONSOLIDATED EQUITY

(in thousands of euros)	Capital	Consolidated reserves and net income	Restatement to fair value of financial instruments	Equity (RTE share)	Equity (non-controlling interests)	Total equity
<b>Equity at 31 December 2019</b>	<b>2,132,286</b>	<b>3,595,305</b>	<b>3,289</b>	<b>5,730,880</b>	<b>-</b>	<b>5,730,880</b>
Total gains and losses recorded directly in equity <sup>(1)</sup>	-	(187,512)	(807)	(188,319)	-	(188,319)
2020 net income	-	521,171	-	521,171	-	521,171
<b>Net income and gains and losses recorded directly in equity</b>	<b>-</b>	<b>333,659</b>	<b>(807)</b>	<b>332,852</b>	<b>-</b>	<b>332,852</b>
Dividends paid	-	(408,553)	-	(408,553)	-	(408,553)
Other changes	-	(42)	-	(42)	-	(42)
<b>Equity at 31 December 2020</b>	<b>2,132,286</b>	<b>3,520,370</b>	<b>2,482</b>	<b>5,655,137</b>	<b>-</b>	<b>5,655,137</b>
Total gains and losses recorded directly in equity <sup>(1)</sup>	0	(160,467)	(722)	(161,188)	-	(161,188)
2021 net income	0	661,066	-	661,066	25	661,091
<b>Net income and gains and losses recorded directly in equity</b>	<b>0</b>	<b>500,599</b>	<b>(722)</b>	<b>499,877</b>	<b>25</b>	<b>499,902</b>
Dividends paid	0	(312,703)	-	(312,703)	-	(312,703)
Other changes	0	7,849	-	7,832	32	7,864
<b>EQUITY AT 31 DECEMBER 2021</b>	<b>2,132,286</b>	<b>3,716,115</b>	<b>1,760</b>	<b>5,850,160</b>	<b>57</b>	<b>5,850,217</b>

(1) For details of these changes, see the statement of net income and gains and losses recorded directly in equity.

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

RTE, Réseau de transport d'électricité ("RTE"), is a *société anonyme*, a French-domiciled publicly-traded limited company whose shares are unlisted.

RTE manages the French electricity transmission network, with responsibility for operating, maintaining and developing the network. It guarantees smooth and safe operation of the French electric system, providing on-demand, equitable access to all network users.

The consolidated financial statements of the RTE Group ("the Group") include the accounts of RTE, the accounts of six companies controlled exclusively by RTE which are fully consolidated, the accounts of three jointly-controlled companies consolidated as joint operations, and the accounts of two companies in which RTE exercises significant influence (associates) which are accounted for under the equity method. All these economic entities are collectively referred to as the "Group".

The five companies controlled exclusively by RTE are:

- Arteria, which markets:
  - use of optical fibres constructed by RTE,
  - "high points" (stand-alone radio transmitters or power system pylons), pre-equipped to host operators' mobile telephone facilities in order to carry broadband to the final customer at a lower cost, as a complement to fibre optics;
- RTE International (RTE I), which provides engineering, consulting and other services in all areas of an electricity transmission network operator's business;
- Airtelis, which markets services using one or more helicopters, and supplies products and equipment to enhance RTE's assets and/or skills (including operations, heliborne transport, and helicopter leases);
- RTE Immo, which operates mainly in acquisition, management, administration and sale of real estate properties and rights, execution of work on real estate properties to enhance their value, and

provision of real estate services. This subsidiary no longer had any operating activities in 2021;

- Cirteus, which provides services, studies and advice in the competitive sector of the market for maintenance, operation and development of high-voltage and very high-voltage electricity installations;
- RTE I Netherlands, 90%-owned by RTE International. This is RTE International's Dutch subsidiary, a specialist in the maintenance of high-voltage power lines and electricity substations.

The companies controlled jointly by RTE are:

- Inelfe (Interconnexion électrique France-Espagne), owned jointly with REE (Red Eléctrica de España SAU). Inelfe was formed for the planning and construction of any new interconnection project between France and Spain, increasing interconnection capacity between the French and Spanish transmission networks;
- IFA 2 (Interconnexion France-Angleterre 2), owned jointly with NG IFA 2 (National Grid IFA 2 Ltd). IFA 2 was formed to construct the new interconnection line of the same name between the French and British transmission networks.

The Group's associates are:

- a holding company, HGRT (Holding des Gestionnaires de Réseau de Transport d'électricité, a French limited company<sup>(1)</sup>) which holds an investment in EPEX SPOT, a company that handles financial management for energy purchase and sale markets on European territory;
- Coreso, a Belgian company which supplies safety assessments and designs coordinated preventive or corrective solutions to control safe operation of the electricity system covering the west of Europe.

The Group's financial statements at 31 December 2021 were prepared under the responsibility of its Executive Board, which approved them on 31 January 2022.

(1) Simplified joint stock company (SAS: *société par actions simplifiée*)

## Note 1. Group accounting policies

### 1.1 DECLARATION OF CONFORMITY AND GROUP ACCOUNTING POLICIES

Pursuant to European regulation 1606/2002 of 19 July 2002 on the adoption of international accounting standards, the Group's consolidated financial statements for the year ended 31 December 2021 are prepared under the international accounting standards published by the IASB and approved by the European Union for application at 31 December 2021. These international standards are IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), and SIC and IFRIC interpretations.

The Group has decided against early application of the standards and interpretations that were not mandatory in 2021.

### 1.2 CHANGES IN ACCOUNTING POLICIES AT 31 DECEMBER 2021

Apart from the changes indicated below, the accounting and valuation methods applied by the Group in the consolidated financial statements for the year ended 31 December 2021 are identical to those used in the consolidated financial statements for the year ended 31 December 2020.

#### 1.2.1 STANDARDS AND AMENDMENTS ADOPTED BY THE EUROPEAN UNION AND MANDATORY FOR 2021

The following accounting standards and amendments have been adopted by the European Union and are mandatory for financial years beginning on or after 1 January 2021:

- amendments to IFRS 4 extending the temporary exemption from application of IFRS 9. These changes are not applicable to the Group;
- amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 (interest rate benchmark reform, phase 2). The analysis conducted by the Group concluded that these amendments have no significant impact;
- amendments to IFRS 16 on Covid-19-Related Rent Concessions beyond 30 June 2021. The analysis conducted by the Group concluded that these amendments have no significant impact;
- amendments to IAS 1 and IAS 8, Definition of material. These modifications have no impact for the Group;
- in May 2021, the IASB (International Accounting Standards Board) approved the position taken by the IFRS Interpretations Committee (IFRIC 2021-04) in its Agenda Decision "Attributing Benefit to Periods of Service (IAS 19 Employee Benefits)".

This decision concerns a defined-benefit plan in which benefits are earned on the basis of seniority, up to a maximum amount, and are conditional on the beneficiary still being employed by the entity when he or she reaches retirement age. It concludes that an entity must allocate the benefit rights to each year between:

- the date from which each year of service is counted for vesting of benefit rights, i.e. the date before which services rendered by the employee do not affect the amount or maturity of benefits; and
- the date at which the additional services rendered cease to generate significant additional benefit entitlements under the plan, apart from any that result from future wage increases.

In the RTE Group, the scope of application of this IFRIC decision is limited to the calculation methods for retirement gratuities.

Following an evaluation by the Group's actuary, commitments for retirement gratuities (recognised as a provision) have been revised downwards by €8 million. This estimate is based on opening figures for the year 2021. The effect of application of this decision is recognised at the start of the year, i.e. at 1 January 2021 in retained earnings.



### **1.2.2 STANDARDS AND INTERPRETATIONS ADOPTED BY THE EUROPEAN UNION BUT NOT YET MANDATORY**

The standards and interpretations that have already been adopted by the European Union and can be applied early are listed below. No EU-adopted standards and interpretations are applied early in RTE's financial statements for the year ended 31 December 2021:

- amendments to IAS 16, Property, Plant and Equipment: Proceeds before Intended Use;
- amendments to IAS 37, Onerous Contracts – Cost of Fulfilling a Contract;
- amendments to IFRS 3, Reference to the Conceptual Framework;
- annual improvements – 2018-2020 cycle. This concerns the following standards:
  - IAS 41, Taxation in fair value measurements,
  - IFRS 1, Subsidiary as a first-time adopter,
  - IFRS 9, Fees in the “10 per cent” test for derecognition of financial liabilities,
  - IFRS 16, Lease incentives.

The Group has not identified any material impact that is expected to result from the above.

### **1.2.3 OTHER STANDARDS AND AMENDMENTS PUBLISHED BY THE IASB BUT NOT YET ADOPTED BY THE EUROPEAN UNION**

The Group has not yet assessed the potential impacts of the following IASB publications:

- amendments to IAS 1, Classification of Liabilities as Current or Non-current;
- amendment to IAS 1, Disclosure of Accounting Policies; and amendments to IFRS Practice Statement 2 “Making materiality judgements”;
- amendments to IAS 8, Definition of Accounting Estimates;
- amendments to IFRS 10 and IAS 28, Sale or Contribution of Assets between an Investor and its Associate or Joint Venture.

## **Note 2. Summary of the principal accounting and valuation method**

The following accounting methods have been applied consistently to all the periods presented in the consolidated financial statements.

### **2.1 VALUATION**

The consolidated financial statements are based on historical cost valuation, with the exception of certain financial instruments and financial assets, which are stated at fair value.

The methods used to determine the fair value of these instruments are presented in note 2.15.

### **2.2 MANAGEMENT JUDGEMENTS AND ESTIMATES**

The preparation of the financial statements requires the use of judgements, best estimates and assumptions in determining the value of assets and liabilities, income and expenses recorded for the period, considering positive and negative contingencies existing at year-end. The figures in the Group's future financial statements could differ significantly from current estimates due to changes in these assumptions or economic conditions.

The principal sensitive accounting methods for which the Group uses estimates and judgements are described below. Given their importance in the Group's financial statements, the impact of any change in assumption in these areas could be significant.

The Group's judgements and estimates also reflect the consequences of the Covid-19 pandemic, as presented in note 3.1.3.

#### **2.2.1 PENSIONS AND OTHER LONG-TERM AND POST-EMPLOYMENT BENEFITS**

The value of pensions and other long-term and post-employment benefit obligations is based on actuarial valuations that are sensitive to all the actuarial assumptions used, particularly concerning discount rates and wage increase rates.

The principal actuarial assumptions used to calculate these post-employment and long-term benefits at 31 December 2021 are presented in note 24.2. These assumptions are updated annually. The Group considers the actuarial assumptions used at 31 December 2021 appropriate and well-founded, but future changes in these assumptions could have a significant effect on the amount of the obligations and the Group's equity and net income. Sensitivity analyses are therefore presented in note 24.2.

## **2.2.2 IMPAIRMENT OF LONG-TERM ASSETS**

Impairment tests and the useful lives of long-term assets are sensitive to the macro-economic assumptions used, and medium-term financial forecasts. The Group therefore revises the underlying estimates and assumptions based on regularly updated information.

## **2.2.3 FINANCIAL ASSETS AND LIABILITIES**

The Group considers that the balance sheet values of cash and cash equivalents, negotiable debt instruments, trade receivables and trade payables are a good approximation of their market value due to the high liquidity of these items.

The market values of listed investment securities are based on their year-end stock market value. The net book value of other securities and current bank loans is a reasonable approximation of their fair value.

The fair value of financial liabilities was determined using estimated future cash flows, discounted at rates observable at the year-end for instruments with similar conditions and maturities.

## **2.2.4 ASSESSMENT OF CONTROL**

Since application of IFRS 10, IFRS 11 and IFRS 12 the Group has used judgement to assess control or classify the type of partnership arrangement represented by a jointly-controlled entity.

## **2.2.5 OTHER JUDGEMENTS**

When there is no standard or interpretation applicable to a specific transaction, the Group exercises judgement to define and apply accounting methods that will supply relevant, reliable information for preparation of its financial statements.

## **2.3 CONSOLIDATION METHODS**

Subsidiaries are companies in which the Group exercises exclusive control and are fully consolidated. Exclusive control means the power to govern the enterprise's financial and operating policies either directly or indirectly so as to obtain benefit from its activities. The Group is presumed to have exclusive control when the three following conditions are fulfilled:

- the Group holds power over the entity's relevant activities, i.e. the activities that have a significant impact on returns;
- the Group is exposed, or has rights, to variable returns;
- the Group has the ability to use its power over the entity to influence the amount of the investor's returns.

The Group considers all facts and circumstances when assessing control. All substantive potential voting rights exercisable, including by another party, are also taken into consideration.

A joint operation is a joint arrangement in which the parties (joint operators) that exercise joint control over the entity have direct rights to its assets, and obligations for its liabilities. In application of IFRS 11 the Group, as an operator in a joint operation, reports the assets and liabilities and income and expenses related to its investment line by line.

Associates are entities in which the Group exercises significant influence over financial and operating policies, without having exclusive or joint control. Significant influence is presumed to exist when the Group's investment is at least 20%. Associates are accounted for under the equity method.

In application of IFRS 12, investments in associates are carried in the balance sheet at historical cost adjusted for the share of net assets generated after

acquisition, less any impairment. The Group's share in net income for the period is reported under the income statement heading "Share in net income of associates".

All significant internal transactions between consolidated companies, including realised internal profits, are eliminated.

A list of subsidiaries, joint operations and associates is presented in note 33.

## 2.4 FINANCIAL STATEMENT PRESENTATION RULES

Assets and liabilities of dissimilar natures or functions are disclosed separately.

Assets and liabilities contributing to working capital used in the entity's normal operating cycle are classified as current. Other assets and liabilities are classified as current if they mature within one year of the closing date, and non-current if they mature more than one year after the closing date.

The income statement presents items by nature. The heading "Other income and expenses" presented below the operating profit before depreciation and amortisation comprises any items of an unusual nature or amount.

## 2.5 TRANSLATION METHODS

### 2.5.1 REPORTING CURRENCY AND FUNCTIONAL CURRENCY

The Group's financial statements are presented in Euros, which is both its functional and reporting currency. All figures are rounded up or down to the nearest thousand.

### 2.5.2 TRANSLATIONS OF TRANSACTIONS IN FOREIGN CURRENCIES

In application of IAS 21, transactions expressed in foreign currencies are initially translated and recorded in the functional currency of the entity concerned, using the rate in force at the transaction date.

At each reporting date, monetary assets and liabilities expressed in foreign currencies are translated at the closing rate. The resulting foreign exchange differences are taken to the income statement.

IFRIC 22, "Foreign Currency Transactions and Advance Consideration" adopted on 28 March 2018, clarified a point of application of IAS 21 regarding the exchange rate that should be used when an advance payment is made before execution of the transaction. The purchase or sale transaction must be translated at the exchange rate of the date of initial recognition of the asset or liability corresponding to the advance payment. If several advance payments are made, an average exchange rate is determined for each transaction.

## 2.6 RELATED PARTIES

Related parties include the French State, companies in which the State holds majority ownership and certain of their subsidiaries (including EDF SA and certain subsidiaries), and companies in which RTE exercises joint control or significant influence. They also include members of the Group's management and governance bodies.

## 2.7 SALES

RTE's sales consist of three types of revenue, each corresponding to a different nature of income and customer:

- income generated by access to the public electricity transmission network: the network access tariff is regulated and the customers are distributors (such as Enedis), consumers (such as French railway company SNCF or an industry) and producers (which inject power into the network, such as EDF);
- income from interconnections between France and its neighbouring countries, which depend on the capacities available on each line and price differentials between the countries, with specific invoicing methods for each international border;
- income from other services provided by RTE (miscellaneous types of work, personnel secondment, etc.) or its subsidiaries (helicopter leases, consulting services, etc.).

The Group accounts for sales when:

- there is a proven contractual relationship;
- delivery has taken place (or the service has been completed);
- a quantifiable price has been established or can be determined;
- and the receivables are likely to be recovered.

Delivery takes place when the risks and benefits associated with ownership are transferred to the buyer.

The Group applies IFRS 15 “Revenue from Contracts with Customers”. Connection contracts qualify as contracts with customers under this standard, and income from those contracts has therefore been reclassified from a share of subsidies to sales.

RTE has opted to recognise the revenue over time. The income from a connection contract is thus spread over the period of use of the connection in the same way as the investment subsidy.

This decision corresponds to an economic approach: it is coherent to recognise income on connection in the same way as the associated expenses and depreciation, which are spread over the period of use of the connection.

Also, the service transferred to the customer is not the connection itself, but its use: the customer simultaneously receives and consumes its right to use the connection supplied by RTE. The service concerned by the contract is thus transferred to the customer continuously rather than at a specific date (see IFRS 15.35), and this is the reason why revenues from customer connections should be recognised progressively over the period of use of the connection.

Contract liabilities under IFRS 15 represent RTE’s obligation to supply to its customers a service of connection to the network for which it has already received payment. These liabilities consist of advance payments received for the connection service (see note 28).

## 2.8 CAPACITY MECHANISM

A capacity mechanism has been set up in France to ensure secure power supplies during peak periods.

French law 2010-1488 of 7 December 2010 on the new organisation of the electricity market introduced an obligation in France to contribute to power supply security from 1 January 2017.

Operators of electricity generation facilities and load-shedding operators must have their capacities certified by RTE, and commit to a forecast level of

availability for a given year of delivery. In return, they are awarded capacity certificates.

Meanwhile, electricity suppliers and purchasers of power to compensate for network losses (obligated actors) must hold capacity certificates equivalent to consumption by their customers in peak periods. Suppliers pass on the cost of the capacity mechanism to final customers through their sale prices.

The system is completed by registers for capacity trading between actors. Capacity auctions are held several times a year.

The Group is concerned by this system, as a certifier (RTE SA), an operator of electricity installations via its interconnections (RTE SA) and as an obligated purchaser (RTE SA – as a purchaser of power to compensate for network losses).

The operations are recorded as follows:

- sales of capacity certificates are recognised in income when the auctions or over-the-counter sales take place. The resulting revenue is included in income from interconnections;
- stocks of capacity certificates held by RTE as obligated actor are stated at their purchase value on the market. Decreases in the stock of certificates follow the pattern of peak periods;
- if the stocks of capacity certificates do not cover the obligation, an expense is recorded equivalent to the best estimate of the expense necessary to extinguish the obligation.

## 2.9 OTHER EXTERNAL EXPENSES

Transactions related to RTE’s responsibility for balancing electricity generation and consumption in the electricity transmission network are reported under “Other external expenses.”

## 2.10 INCOME TAX

Income taxes include the current tax expense (income) and the deferred tax expense (income), calculated under the tax legislation in force in the countries where the earnings are taxable.

In compliance with IAS 12, current and deferred taxes are recorded in the income statement, or in equity if they concern items directly recorded in equity.

The current tax expense (income) is the estimated amount of tax due on the taxable income for the period, calculated using the tax rates adopted at the year-end. This expense includes reclassification of certain tax credits as components of "Other operating income and expenses" in the income statement.

Deferred taxes result from temporary differences between the book value of assets and liabilities and their tax basis.

Deferred tax assets and liabilities are valued at the future tax rate for the period in which the asset will be realised or the liability settled, as adopted at the year-end. If the tax rate changes, deferred taxes are adjusted to the new rate and the adjustment is recorded in the income statement, unless it relates to an underlying for which changes in value are recorded in equity, for example in accounting for changes in actuarial gains and losses or fair value on hedging instruments and financial assets.

Deferred taxes are reviewed at each closing date, to take into account changes in tax legislation and the prospects for recovery of deductible temporary differences. Deferred tax assets are only recognised when it is probable that the Group will have sufficient taxable profit to utilise the benefit of the asset in the foreseeable future, or beyond that horizon, if there are deferred tax liabilities with the same maturity.

Since 1 January 2018, RTE SA has been part of the CTE Group's tax group. The tax group agreement stipulates that the tax to be borne by RTE SA is equal to the income tax that would have been payable on its taxable income and/or long-term capital gains of the year if it was taxed separately, less all deductions to which RTE SA would have been entitled if it was not part of a tax group.

## 2.11 EARNINGS PER SHARE

Earnings per share is calculated by dividing the Group's share of net income by the weighted average number of shares outstanding over the period. This weighted average number of shares outstanding is the number of ordinary shares at the

start of the year, adjusted by the number of shares redeemed or issued during the year.

## 2.12 INTANGIBLE ASSETS

Intangible assets mainly consist of purchased or internally designed and developed software. These assets are amortised on a straight-line basis over their useful lives, which are generally between 3 and 15 years.

Software licence acquisition costs or the cost of creating and developing software are reported at a value based on the costs incurred to acquire the software, or create it and put it into operation. Costs directly associated with production of identifiable, unique software that is controlled by the Group, and is likely to generate future economic benefits greater than the cost of the software over a period of more than one year, are capitalised. Costs directly associated with production include payroll costs for the personnel who developed the software and the internal and external expenses incurred in producing the asset.

Other research and development expenses are charged to expenses for the year they are incurred, unless they meet the requirements for capitalisation as defined by IAS 38.

## 2.13 PROPERTY, PLANT AND EQUIPMENT

### 2.13.1 INITIAL MEASUREMENT

Property, plant and equipment is recorded at acquisition or production cost.

The cost of facilities developed in-house includes all labour and parts costs, and all other production costs attributable to the construction of the asset.

When a part of an asset has a different useful life from the overall asset's useful life, it is identified as an asset component and depreciated over a specific period.

Borrowing costs attributable to the financing of an asset incurred during the construction period are included in the value of the asset provided it is a "qualifying asset" as defined by IAS 23. The capitalisation rate applied depends on the borrowing terms, as presented in note 25.2.1.

### 2.13.2 DEPRECIATION

Property, plant and equipment are depreciated on a straight-line basis over their useful life, defined as the period during which the Group expects to draw future economic benefits from their use.

Depreciation is calculated based on the gross value of the assets concerned, which will have zero residual value at the end of their useful life.

The estimated useful lives for the principal facilities are generally the following:

- lines and cables: 45 years;
- transformers: 40 years;
- cells and busbars: 45 years for “High voltage” equipment and 15 years for “Low voltage” equipment;
- reactive power compensation and auxiliary equipment: 45 years;
- telecommunications and telecontrol equipment: 10 years.

### 2.13.3 SUBSEQUENT INVESTMENT EXPENDITURE

Subsequent costs are included in the book value of the asset, or recognised as a separate asset when it is probable that the future economic benefits from the asset will benefit the Group and the cost can be reliably measured.

### 2.13.4 MAINTENANCE AND COMPLIANCE EXPENSES

All repair and maintenance expenses are charged to the income statement during the period in which they are incurred.

The Group capitalises safety spare parts and compliance expenses incurred as a result of legal and regulatory obligations sanctioning non-compliance by an administrative ban from operation.

These expenses are amortised over the useful life of the relevant facilities.

### 2.13.5 PUBLIC TRANSMISSION NETWORK CONCESSION

RTE is by law France’s public transmission network operator, and exercises this mission under the amendment signed on 30 October 2008 to the agreement of 27 November 1958, transferring the concession for the French public electricity transmission network to RTE. The assets operated under this concession are by law the property of RTE, and are included in “property, plant and equipment”.

### 2.14 LEASES

Under IFRS 16, applicable since 1 January 2019, a contract is, or contains, a lease if it confers the right to control the use of an identified asset for a period of time in exchange for a consideration.

Identified arrangements that do not have the legal form of a lease contract but nonetheless convey the right to control the use of an asset or group of specific assets to the purchaser are treated by the Group as leases, and analysed by reference to IFRS 16.

IFRS 16 introduced significant changes to the accounting treatment of leases by the lessee. It eliminated the distinction between operating and finance leases and requires recognition of a right-of-use asset and a lease liability when a lease is set up.

The Group has applied this standard retrospectively since 1 January 2019, without restating comparative period figures (this is known as the “modified” retrospective approach).

Leases are recognised in the balance sheet at their inception, at the discounted value of future lease payments, in the form of a financial liability included in “other financial liabilities (see note 25) and a “right-of-use” asset included in property, plant and equipment (see note 16). They are written down over the term of the lease.

The leases concerned essentially concern real estate assets, and to a lesser extent transport vehicles.

The Group applies the two exemptions allowed by the standard for leases with a term of 12 months or less and leases of assets with individual value when new of less than USD 5,000.

The Group determines the lease liability by discounting the future lease payments over the term of the lease using a rate based on an incremental borrowing rate that reflects the Group's specific features. The maturity of the chosen rate depends on the term of each lease contract.

The term of the lease is the maximum period during which the lessee will have the right to use the leased asset, i.e. the period during which the lease cannot be terminated by the lessor, plus all possible extensions at the lessee's sole initiative as set out in the contract.

## **2.15 IMPAIRMENT OF INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT**

At the year-end and at each interim reporting date, the Group assesses whether there is any indication that an asset could have been significantly impaired. If so, an impairment test is carried out in compliance with IAS 36.

## **2.16 FINANCIAL ASSETS AND LIABILITIES**

Financial assets include assets (non-consolidated investments, investment securities), loans and receivables at amortised cost, including trade and similar receivables, and the positive fair value of derivatives.

Financial liabilities comprise financial borrowings and debts, trade and similar payables, bank credit and the negative fair value of financial derivatives.

Financial assets and liabilities are recorded in the balance sheet as current if they mature within one year and non-current if they mature after one year, apart from derivatives held for trading, which are all classified as current.

Operating debts and receivables, and cash and cash equivalents, are governed by IFRS 9 and reported separately in the balance sheet.

### **2.16.1 FINANCIAL ASSETS (EXCLUDING DERIVATIVES)**

Financial assets that give rise to cash flows which are not Solely Payment of Principal and Interest (SPPI) must be carried at fair value through profit and loss.

However, IFRS 9 offers an irrevocable option, which must be exercised at inception for each individual investment, allowing investments in equity instruments to be carried at fair value through other comprehensive income, with no subsequent transfer to profit and loss even in the event of sale. Under this option, only dividends are recorded in income.

Financial assets that give rise to cash flows which are Solely Payment of Principal and Interest (SPPI) are carried at amortised cost under the effective interest rate method.

Financial assets carried at fair value through profit and loss are recognised at the transaction date at fair value, which is generally equal to the amount of cash paid out. Transaction costs directly attributable to the acquisition are recorded in the income statement. At each subsequent reporting date they are adjusted to fair value, which is determined by reference to (i) quoted prices on an active market (level 1), (ii) observable data from a market (level 2), or (iii) data that cannot be observed on a market (level 3).

Changes in fair value are recorded in the income statement under the heading "Other financial income and expenses".

Dividends and interest received on assets stated at fair value are recorded in the income statement under "Other financial income and expenses".

In the case of non-current financial assets carried at amortised cost, impairment is assessed on an individual basis, taking into consideration the counterparty's risk profile and the guarantees received. Upon initial recognition of these non-current financial assets, impairment equal to the expected credit losses over a 12-month horizon is systematically booked. If there is a significant deterioration in the counterparty's creditworthiness, additional impairment is booked so that the total expected credit loss over the receivable's residual term is covered.

For sales receivables, the Group reviews customer receivables individually, taking into consideration the probability of default by the counterparty and the degree to which the receivables are covered by provisions. It applies the simplified method allowed by IFRS 9, which consists of establishing provisions to cover expected credit losses over the receivables' residual term.

## 2.16.2 FINANCIAL LIABILITIES (EXCLUDING DERIVATIVES)

Financial liabilities are recorded at amortised cost, with separate reporting of embedded derivatives where applicable. Transaction costs are deducted from the financed amount reported under financial liabilities. Interest expenses, calculated under the effective interest rate method including transaction costs related to financial liabilities, are recorded under the heading “Cost of gross financial indebtedness” over the duration of the financial liability. The fair value is determined by discounting future cash flows at market rates.

## 2.16.3 DERIVATIVES

### 2.16.3.1 Scope

The scope of derivatives applied by the Group corresponds to the principles set out in IFRS 9.

In particular, forward purchases for physical delivery of energy are considered to fall outside the scope of application of IFRS 9 when the contract concerned has been entered into as part of the Group’s normal business activity (“own use”).

This is demonstrated to be the case when all the following conditions are fulfilled:

- a physical delivery takes place under all such contracts;
- the volumes purchased or sold under the contracts correspond to the Group’s operating requirements;
- these contracts cannot be considered as options as defined by the standard.

The Group thus considers that transactions negotiated with a view to balancing the volumes of purchase commitments and the actual level of losses are part of its normal business as operator of the electricity transmission network, and are outside the scope of IFRS 9.

In compliance with IFRS 9, the Group analyses all its contracts, of both a financial and non-financial nature, to identify the existence of any “embedded” derivatives. Any component of a contract that

affects the cash flows of that contract in the same way as a stand-alone derivative corresponds to the definition of an embedded derivative.

If they meet the conditions set out by IFRS 9, embedded derivatives are accounted for separately from the host contract at inception date.

### 2.16.3.2 Measurement and recognition

Derivatives are initially recorded at fair value, based on quoted prices and market data available from external sources. If no quoted prices are available, the Group may refer to recent comparable transactions or, if no such transactions exist, base its valuation on internal models that are recognised by market participants, giving priority to information derived directly from observable data, such as over-the-counter listings.

Changes in the fair value of these derivatives are recorded in the income statement, unless they are classified as hedges for a cash flow. Changes in the fair value of cash flow hedging instruments are recorded directly in equity, excluding the ineffective portion of the hedge.

In application of IFRS 13, the fair value of derivatives incorporates the counterparty credit risk for derivative assets and the own credit risk for derivative liabilities.

### 2.16.3.3 Financial instruments classified as hedges

The Group may use derivative instruments to hedge its foreign exchange and interest rate risks, and risks related to certain energy contracts.

The Group applies the criteria defined by IFRS 9 in classifying derivatives as hedges:

- the instrument must hedge changes in fair value or cash flows attributable to the risk hedged, and the effectiveness of the hedge (i.e. the degree to which changes in the value of the hedging instrument offset changes in the value of the hedged item or future transaction) must be between 80% and 125%;



- in the case of cash flow hedges, the future transaction being hedged must be highly probable;
- reliable measurement of the effectiveness of the hedge must be possible;
- the hedge must be supported by appropriate documentation from its inception.

The hedging relationship ends when:

- a derivative ceases to be an effective hedging instrument;
- a derivative expires, or is sold, terminated or exercised;
- the hedged item expires, is sold or redeemed;
- a future transaction ceases to be considered as highly probable.

The Group uses the following categories for hedges:

#### — (A) Fair value hedges

These instruments hedge the exposure to changes in the fair value of an asset or liability recorded in the balance sheet, or a firm commitment to purchase or sell an asset. Changes in the fair value of the hedged item attributable to the hedged component of that item are recorded in the income statement and offset by corresponding variations in the fair value of the hedging instrument. Only the ineffective portion of the hedge has an impact on income.

#### — (B) Cash flow hedges

These instruments hedge highly probable future transactions for which the variability in cash flows generated by the hedged transaction is offset by changes in the value of the hedging instrument.

The effective portion of accumulated changes in the hedge's fair value is recorded in equity, and the ineffective portion (i.e. changes in the fair value of the hedging instrument in excess of changes in the fair value of the hedged item) is recorded in the income statement.

When the hedged cash flows materialise, the amounts previously recognised in equity are transferred to the income statement in the same way as for the hedged item.

### 2.16.4 DERECOGNITION OF FINANCIAL ASSETS AND LIABILITIES

Derecognition is applied for all or part of:

- a financial asset, when the contractual rights making up the asset expire, or the Group transfers substantially all the significant risks associated with ownership of the asset;
- a financial liability, when the liability is extinguished due to cancellation or expiry of the obligation. When a debt is renegotiated with a lender giving rise to substantially different terms, a new liability is recognised.

### 2.17 INVENTORIES

Inventories are stated at the lower of historical cost and net realisable value. The cost of inventories is determined by the weighted average unit cost method, including both direct and indirect purchase costs.

Inventories include:

- operating materials and equipment such as spare parts supplied under a maintenance programme. Inventories are recognised at the lower of historical cost and net realisable value. The cost of inventories is determined under the weighted average unit cost method, and includes all direct and indirect purchase acquisition costs;
- certificates issued under capacity obligation mechanisms (capacity guarantees in France), see note 1.3.

Impairment of inventories depends on the turnover of materials, their estimated useful lives and the degree of technical obsolescence.

### 2.18 TRADE AND SIMILAR RECEIVABLES

On initial recognition, trade and similar receivables are recorded at the fair value of the consideration received or to be received (which generally corresponds to their nominal value). Provisions are recorded when their carrying amount, based on the probability of recovery assessed according to the type of receivable, is less than their book value. Depending on the nature of the receivable, the risk associated with doubtful receivables is assessed individually.

Trade receivables also include the value of unbilled receivables for energy already supplied.

## 2.19 CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise immediately available liquidities and very short-term investments that are readily convertible into a known amount of cash, usually maturing within three months or less of the acquisition date, and with negligible risk of fluctuation in value.

Securities held short-term and classified as cash equivalents are recorded at fair value. Changes in the fair value of these securities are included in the heading "Other financial income and expenses".

## 2.20 EQUITY – IMPACT OF RESTATEMENT TO FAIR VALUE OF FINANCIAL INSTRUMENTS

This impact results from the adjustment to fair value of financial assets and certain hedging instruments.

## 2.21 PROVISIONS OTHER THAN EMPLOYEE BENEFIT PROVISIONS

The Group recognises a provision if the following three conditions are met:

- the Group has a present obligation (legal or constructive) towards a third party that arises from an event prior to the closing date;
- it is probable that an outflow of resources will be required to settle the obligation, without an equivalent consideration;
- the obligation amount can be estimated reliably.

Provisions are determined based on the Group's estimate of the expected cost necessary to settle the obligation. Estimates are based on assumptions adopted by the Group, and if necessary experience of similar transactions, or in some cases based on independent expert reports or contractor quotes. The various assumptions are reviewed for each closing of the accounts.

If it is anticipated that all or part of the expenses covered by a provision will be reimbursed, the reimbursement is recognised under receivables if and only if the Group is certain of receiving it.

## 2.22 EMPLOYEE BENEFITS

The Group grants its employees post-employment benefits (pension plans, retirement gratuities, etc.) and other long-term benefits (e.g. long-service awards) in compliance with the specific laws and measures in force for the electricity and gas (IEG) sector in France.

### 2.22.1 CALCULATION AND RECOGNITION OF EMPLOYEE BENEFITS

Obligations under defined-benefit plans are subject to actuarial valuation. They are calculated by the projected unit credit method, which determines the present value of entitlements earned by employees at year-end to pensions, post-employment benefits and long-term benefits, taking into consideration economic conditions and expected wage increases.

In calculating post-employment benefit obligations, this method takes the following factors into consideration:

- career-end salary levels, with reference to employee seniority, projected salary levels at the time of retirement based on the expected effects of career advancement, and estimated trends in pension levels;
- retirement age, determined on the basis of the applicable rule (such as the degree of "active work" and number of children, taking into account the longer employee contribution period to qualify for a full pension);
- forecast numbers of pensioners, based on employee turnover rates and available mortality data;
- reversion pensions, taking into account both the life expectancy of the employee and his/her spouse and the marriage rate observed for the population of employees in the electricity and gas sector;
- a discount rate that depends on the duration of the obligations; in compliance with IAS 19 (revised), this rate is determined as the market yield on high quality corporate bonds or the year-end rate on government bonds whose duration is coherent with the company's commitments to employees.

The provision reflects the value of the fund assets that cover post-employment benefits, which are deducted from the value of the obligation as determined above.

For pensions and other post-employment obligations, all actuarial gains and losses generated by changes in actuarial assumptions (discount rate, inflation rate, wage laws, mortality, retirement age, etc.) are immediately recognised in the statement of net income and gains and losses recorded directly in equity.

For long-term employee benefits, actuarial gains and losses and the entire past service cost are recognised immediately in the provision.

The net expense booked for employee benefit obligations during the year thus includes:

- the cost of additional vested benefits, and the financial discount cost on existing benefits;
- the income corresponding to the expected return on fund assets;
- the income or expenses related to amendments or settlements of benefit plans or introduction of new plans;
- the change in actuarial gains and losses on long-term benefits.

## 2.22.2 POST-EMPLOYMENT BENEFIT OBLIGATIONS

When they retire, Group employees covered by the electricity and gas (IEG) sector system benefit from pensions determined under the statutory IEG rules.

Since the financing reform for the IEG sector system took effect on 1 January 2005, the CNIIEG (*Caisse nationale des IEG*, the sector's specific pension body) has managed not only the special IEG pension system, but also the work-related accident, invalidity and death insurance system for the sector.

The CNIIEG is a social security body governed by private law, formed by the law of 9 August 2004. It has legal entity status and reports to the French government, operating under the joint supervision of France's ministers for the Budget, Social Security and Energy. Under the funding arrangements introduced by the law, IEG companies establish pension

provisions to cover entitlements not funded by France's standard systems (CNAV, AGIRC-ARRCO), to which the IEG system is affiliated, or by the CTA (*contribution tarifaire d'acheminement*) levy on gas and electricity transmission and distribution services.

The provision for pensions thus covers:

- specific benefits earned by employees from 1 January 2005 for the regulated transmission activity (past benefits were financed by the CTA levy);
- specific benefits of employees benefiting from early retirement before the standard legal retirement age.

In addition to pensions, other benefits are granted to IEG status employees not currently in active service, as detailed below:

### — Benefits in kind (electricity/gas):

Article 28 of the IEG National Statutes entitles all employees (active or inactive) to the same benefits in kind in the form of supplies of electricity or gas at the preferential "Employee price". The Group's obligation for supplies of energy to employees corresponds to the probable present value of kWh supplied to beneficiaries during their retirement, valued on the basis of the unit cost, taking into account the payment received under the energy exchange agreement with Engie.

### — Retirement gratuities

These gratuities are paid upon retirement to employees due to receive the statutory old-age pension, or to their dependents if the employee dies before reaching retirement. These obligations are almost totally covered by an insurance policy.

### — Bereavement benefit

This benefit is paid out upon the death of an inactive or disabled employee, in order to provide financial assistance for the expenses incurred at such a time (Article 26 §5 of the National Statutes). It is paid to the deceased's principal dependants (statutory indemnity equal to three months' pension) or to a third party that has paid funeral costs (discretionary indemnity equal to the costs incurred).

### — Bonus pre-retirement paid leave

All employees eligible to benefit immediately from the statutory old-age pension and aged at least 55 at their retirement date are entitled to 18 days of bonus paid leave during the last twelve months of their employment.

### — Cost of studies indemnity and study grants

The cost of studies indemnity is a family benefit not defined by the statutes, intended to provide assistance to inactive employees (or their dependants) whose children are still in education. It is also paid to beneficiaries of the orphan's pension. An agreement on education fees that came into force on 1 October 2011 introduced Study grants, which are progressively replacing the Cost of studies indemnity. In November 2017 the unions and employers' groups signed an amendment to the agreement of 7 March 2011, agreeing to review and improve the study grant system, notably to simplify the qualifying conditions. This amendment took effect on 1 January 2018.

### — Time banking for additional retirement leave

Following the 2008 pension reform, an agreement was reached in 2010 that replaced the early retirement arrangements for "active work" (i.e. non-sedentary) employees joining the Group on or after 1 January 2009. Under this agreement:

- the employee earns 10 days of additional retirement leave for each year of 100% "active work";
- days are attributed on a prorated basis if the proportion of "active work" is less than 100%;
- no days are attributed if the proportion of "active work" is less than 20%.

The employee retains his/her entitlement to days of leave earned under this time banking system if he/she leaves the IEG sector or is transferred to an IEG status company. This leave can only be taken when he/she retires, between the date at which he/she qualifies for a pension and the age limit set by article 4 of the National Statutes for IEG personnel.

### 2.22.3 OTHER LONG-TERM BENEFIT OBLIGATIONS

These benefits concern employees currently in service, and are earned according to IEG statutory regulations. They include:

- annuities and benefits following invalidity, industrial accident or work-related illness; like their counterparts in the general national system, IEG employees are entitled to financial support in the event of industrial accident or work-related illness, and invalidity annuities and benefits. The obligation is measured as the probable present value of future benefits payable to current beneficiaries, including any possible reversions;
- long-service awards;
- specific benefits for employees who have been in contact with asbestos.

### 2.23 INVESTMENT SUBSIDIES

Investment subsidies received by Group companies, principally for connecting customers to the transmission network, are included in liabilities under the heading "Other current liabilities" and transferred to income as and when the economic benefits of the corresponding assets are utilised.

In accordance with IFRS 15<sup>(1)</sup>, investment subsidies associated with connection contracts have been reclassified as sales revenues and are recognised progressively over the useful life of the corresponding asset.

### 2.24 ENVIRONMENTAL EXPENSES

Environmental expenses are identifiable expenses incurred to prevent, reduce or repair damage to the environment that has been or may be caused by the Group as a result of its business. Two possible treatments apply to these expenses:

- they are capitalised if they are incurred to prevent or reduce future damage or preserve resources;
- they are recognised as expenses if they are operating expenses for the bodies in charge of environmental concerns, environmental supervision, training and skill enhancement in environmental matters, environmental duties and taxes, and waste processing.

(1) See note 2.7 "Sales".

### Note 3. Significant events and transactions of 2021 and 2020

## 3.1 SIGNIFICANT EVENTS AND TRANSACTIONS OF 2021

### 3.1.1 INVESTMENT PROGRAMME FOR 2021

In response to the challenges of the energy transition, RTE's investment programme serves substantial needs, concerning not only reinforcement of interconnections with neighbouring European networks, but also the incorporation of new types of generation facilities, adaptation of the network to changes in modes of consumption, and upgrades of physical assets to maintain a quality service. Investment expenditure for 2021 amounted to €1,578 million, 92% of the amount authorised by the French energy regulator CRE (*Commission de régulation de l'énergie*).

The principal expenditure in 2021 concerned major projects for connection of the Fécamp, Saint-Nazaire, Saint-Brieuc and Calvados offshore wind farms, and transmission projects associated with developments such as the Avelin-Gavrelle ligne and interconnectors such as IFA2 and Savoy-Piedmont.

### 3.1.2 TURPE 6 NETWORK ACCESS TARIFF

The TURPE 6 transmission network access tariff came into force on 1 August 2021 for a 4-year period, with revisions on 1 August every year to reflect inflation and the gradual balancing of the income and expenses adjustment account (CRCP<sup>(1)</sup>).

The average adjustment on 1 August 2021 of the 'TURPE 6 HTB' tariff for the high voltage network across all consumer categories was an increase of +1.09%.

### 3.1.3 FINANCING TRANSACTIONS OF THE YEAR

Redemption of two bonds for the total amount of €750 million in February 2021 (at the interest rate of 4.13%) and repayment of a €100 million EIB loan in September 2021 (at the interest rate of 0.163%). The net indebtedness decreased from €9.8 billion in December 2020 to €9.7 billion at 31 December 2021.

### 3.1.4 TAX INSPECTIONS

Following the tax inspection concerning the years 2017 and 2018, RTE SA was notified of a rectification procedure in which the tax authorities challenged certain accounting and tax treatments. A provision of €8 million was therefore recognised in the 2021 financial statements to cover this risk.

### 3.1.5 DIVIDENDS

On 8 June 2021, the Supervisory Board approved the proposal put forward by the shareholders at their General Meeting held the same day to pay a dividend of €313 million or approximately €1.47 per share.

## 3.2 SIGNIFICANT EVENTS AND TRANSACTIONS OF 2020

### 3.2.1 CONSEQUENCES OF THE COVID-19 PANDEMIC

The public health crisis caused by the Covid-19 pandemic, and the emergency measures taken by the public authorities from 17 March 2020, led to a general decrease in electricity consumption by customers. In detail:

- France's first lockdown (17 March to 10 May 2020) had a particularly strong impact on transport activities, especially rail transport, which is a big electricity consumer. This caused a substantial decrease in electricity consumption, which dropped by 16% in March 2020 (after adjustment for weather effects), before slowly and gradually returning to normal levels. In June 2020, consumption was 6% below the expected level at equivalent temperatures.
- A second national lockdown (30 October to 15 December 2020), less restrictive than the first, was imposed in view of rising infection rates. The actors affected were prepared for this; they already had business continuity plans, and the decreases in electricity levels were much smaller.

(1) *Compte de régulation des charges et des produits*. The CRCP account for each tariff period records the differences between forecasts and actual results on certain items the CRE considers difficult to forecast or difficult to control (network access, energy purchases to compensate for network losses, interconnections). These differences are then passed on to network users through future tariff adjustments.

RTE did not make use of the support measures available to businesses.

#### **Estimated impacts of the Covid-19 pandemic on the financial statements at 31 December 2020**

In accordance with the recommendations of the French financial market regulator AMF and the ANC, RTE did not make any changes to its habitual classifications in the income statement as a result of the Covid-19 pandemic.

- The first national lockdown and its economic consequences led to a decrease in network access income estimated at €62 million for the first half of 2020. The second lockdown resulted in a €26 million decrease in sales. The total estimated decrease in sales over the year 2020 was thus €88 million.
- The Covid-19 crisis had a limited impact on external purchases, as the additional expenses incurred during the period (for masks, sanitisers, cleaning products, etc.) were offset by the lower level of purchases resulting from the lockdown (less travel, training and seminars, etc.).
- For current financial assets, the negative changes in fair value observed as a result of the downturn on the financial markets had a slight impact on the financial result.
- No evidence of asset impairment was identified.

Consequently, the estimated impact of the Covid-19 crisis on the consolidated net income principally concerned sales.

#### **Note 4. Changes in the scope of consolidation**

RTE I Netherlands is included in the RTE Group's scope of consolidation from 2021. This company is owned 90% by RTE International. It is RTE Interna-

#### **3.2.2 FINANCING TRANSACTIONS OF THE YEAR**

In July 2020, RTE issued two new bonds:

- a €500 million bond with 12-year maturity and an annual coupon of 0.625%;
- a €750 million bond with 20-year maturity and an annual coupon of 1.125%.

In October 2020 RTE repaid €100 million of an EIB loan.

These operations contributed to the financing of RTE's investment programme and extended the average maturity of debt, which increased from 13.8 to 14.3 years between 31 December 2019 and 31 December 2020.

#### **3.2.3 TAX INSPECTIONS**

RTE was not involved in any significant tax litigation in 2020.

#### **3.2.4 DIVIDENDS**

On 4 June 2020, the Supervisory Board approved the proposal put forward by the shareholders at their General Meeting held the same day to pay a dividend of €408 million or approximately €1.91 per share.

tional's Dutch subsidiary, a specialist in the maintenance of high-voltage power lines and electricity substations.

#### **Note 5. Segment reporting**

In compliance with IFRS 8, "Operating segments", which requires segment reporting, the Group only reports one operating segment, corresponding to the electricity transmission activity as regularly reviewed by the Executive Board.

**Note 6. Sales**

Sales are comprised of:

(in thousands of euros)	2021	2020
Transmission network access – distributors	3,852,302	3,562,418
Transmission network access – other users	485,232	509,641
Interconnections	783,707	545,529
Other services	132,795	111,469
<b>Sales</b>	<b>5,254,036</b>	<b>4,729,058</b>

**Note 7. Energy purchases**

(in thousands of euros)	2021	2020
Energy purchases	(549,943)	(499,512)
<i>including: purchases of capacity guarantees</i>	<i>(41,680)</i>	<i>(27,595)</i>

Energy purchases concern electricity purchases undertaken to compensate for transmission network losses. Each year they include settlement of forward energy purchase contracts concluded in previous

years. They also include the impact of capacity guarantee purchases made in application of the Capacity Mechanism (see note 2.7).

**Note 8. Other external expenses**

Other external expenses comprise:

(in thousands of euros)	2021	2020
External services	(613,241)	(504,411)
System operation purchases (excluding energy purchases)	(691,761)	(412,782)
Other purchases	(84,713)	(193,798)
Change in inventories and capitalised production	263,527	292,000
<b>Other external expenses</b>	<b>(1,126,188)</b>	<b>(818,991)</b>

**Note 9. Contractual obligations and commitments**

In the course of its business, the Group has given and received commitments jointly with third parties.

At 31 December 2021, these commitments mature as follows:

Commitments given (in thousands of euros)	31.12.2021	Maturities			31.12.2020
		< 1 year	1-5 years	> 5 years	
Operating contract performance commitments given	0	0	0	0	0
Commitments related to orders for operating items	1,029,533	844,902	183,429	1,201	1,263,813
Other operating commitments	0	0	0	0	0
Total operating commitments given	1,029,533	844,902	183,429	1,201	1,263,813
Financing commitments given	0	0	0	0	700,000
Investing commitments given	1,260,211	955,709	256,214	48,288	925,628
<b>Total commitments given</b>	<b>2,289,744</b>	<b>1,800,611</b>	<b>439,643</b>	<b>49,489</b>	<b>2,889,442</b>

Commitments received (in thousands of euros)	31.12.2021	Maturities			31.12.2020
		< 1 year	1-5 years	> 5 years	
Operating commitments received	841,050	774,410	61,276	5,363	445,480
Financing commitments received	1,500,905	905	1,500,000	0	2,200,000
Investing commitments received	794,489	169,034	438,698	186,757	498,313
<b>Total commitments received</b>	<b>3,136,445</b>	<b>944,349</b>	<b>1,999,974</b>	<b>192,121</b>	<b>3,143,793</b>

These commitments (given and received) represent existing rights and obligations with effects (inflows and outflows of resources) that are contingent on fulfilment of conditions or execution of future operations.

The Group expects to draw future economic benefits from operating commitments given.

The Group has entered into forward electricity purchases as part of its normal business. These commitments are included in "Commitments related to orders for operating items" and are stated at nominal value. The change in their value between 2020 and 2021 results from the surge in purchase prices for electricity in 2021.



**Note 10. Personnel expenses****10.1 PERSONNEL EXPENSES**

Personnel expenses comprise:

(in thousands of euros)	2021	2020
Wages and salaries	(570,434)	(561,584)
Social contributions	(304,050)	(307,987)
Employee profit sharing including employer contribution	(37,461)	(42,462)
Other expenses linked to short-term benefits	4,362	4,479
<b>Short-term benefits</b>	<b>(907,582)</b>	<b>(907,555)</b>
Benefits paid	68,311	78,204
Current year service cost	(93,787)	(78,894)
Plan amendment	-	-
<b>Post-employment benefits</b>	<b>(25,476)</b>	<b>(690)</b>
Benefits paid	10,770	13,722
Current year service cost	(14,611)	(13,786)
Actuarial gains and losses	3,091	(15,199)
<b>Other long-term benefits</b>	<b>(750)</b>	<b>(15,264)</b>
<b>PERSONNEL EXPENSES</b>	<b>(933,808)</b>	<b>(923,508)</b>

**10.2 WORKFORCE**

RTE's year-end workforce numbers were as follows:

	31.12.2021	31.12.2020
Executives	4,781	4,710
Supervisory and technical	3,704	3,705
Operational staff	378	381
<b>Workforce with IEG status</b>	<b>8,863</b>	<b>8,796</b>
Non IEG status	575	601
<b>TOTAL WORKFORCE</b>	<b>9,438</b>	<b>9,397</b>

RTE's subsidiaries<sup>(1)</sup> have a total of 111 employees.

(1) Subsidiaries owned 100% by RTE.

**Note 11. Taxes other than income taxes**

Taxes other than income taxes comprise:

(in thousands of euros)	2021	2020
Tax on pylons	(291,427)	(285,053)
Tax on network companies (IFER)	(103,709)	(102,677)
Local economic contribution (CET)	(50,390)	(95,443)
Land tax	(22,502)	(41,679)
Other taxes	(42,799)	(40,620)
<b>Taxes other than income taxes</b>	<b>(510,826)</b>	<b>(565,472)</b>

**Note 12. Other operating income and expenses**

Other operating income and expenses comprise:

(in thousands of euros)	2021	2020
Gains (losses) on disposal of fixed assets	(26,069)	(14,166)
Net variation in provisions on current assets	(33,979)	3,179
Net variation in provisions for operating contingencies and losses	(8,304)	5,018
Other income and expenses	29,948	(773)
<b>Other operating income and expenses</b>	<b>(38,404)</b>	<b>(6,742)</b>

“Other income and expenses” mainly include certain penalties paid and received.

**Note 13. Financial result****13.1 COST OF GROSS FINANCIAL INDEBTEDNESS**

(in thousands of euros)	2021	2020
Cost of gross financial indebtedness	(147,681)	(169,815)

The cost of gross financial indebtedness mainly comprises:

- interest expenses on bonds, totalling €170 million;
- application of IAS 23, which requires borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset to be capitalised as part of the cost of that asset.

The impact in 2021 was a positive €27 million (compared to €28 million in 2020);

- interest on the IFRS 16 lease liability, amounting to €4 million.

**13.2 DISCOUNT EFFECT**

(in thousands of euros)	2021	2020
Discount effect	(21,233)	(26,653)

The discount effect essentially concerns provisions for post-employment and long-term employee benefits.

### 13.3 OTHER FINANCIAL INCOME AND EXPENSES

Other financial income and expenses comprise:

(in thousands of euros)	2021	2020
Income (expenses) on cash, cash equivalents and available-for-sale financial assets	(1,621)	(1,112)
Gains (losses) on other financial assets	(14,555)	(9,032)
Other financial income (expenses)	1,819	(1,340)
Return on fund assets	735	1,002
<b>Other financial income and expenses</b>	<b>(13,622)</b>	<b>(10,481)</b>

## Note 14. Income taxes

### 14.1 BREAKDOWN OF INCOME TAX

Details are as follows:

(in thousands of euros)	2021	2020
Current tax expense	(272,693)	(230,444)
Deferred taxes	19,067	(3,590)
<b>TOTAL</b>	<b>(253,626)</b>	<b>(234,035)</b>

### 14.2 RECONCILIATION OF THE THEORETICAL AND EFFECTIVE TAX EXPENSE

(in thousands of euros)	2021	2020
Consolidated profit before tax of consolidated companies	(910,781)	(751,584)
Tax rate applicable	28.41%	32.02%
Theoretical tax expense	(258,664)	(240,685)
Differences in tax rate	(1,083)	3,661
Permanent differences <sup>(1)</sup>	1,496	(74)
Taxes without basis <sup>(2)</sup>	3,228	1,372
Other	1,398	1,692
<b>ACTUAL TAX EXPENSE</b>	<b>(253,626)</b>	<b>(234,035)</b>
<b>Effective tax rate</b>	<b>27.85%</b>	<b>31.14%</b>

(1) This principally includes the impact of restrictions on the deductibility of interest on borrowings.

(2) Tax credits reclassified as operating items.

### 14.3 BREAKDOWN OF DEFERRED TAXES BY NATURE

(in thousands of euros)	31.12.2021	31.12.2020
Differences between depreciation recorded for accounting and tax purposes	16,844	15,625
Financial instruments	8	23
Provisions for employee benefits	599,206	534,226
Investment subsidies	226,142	205,559
Other deductible temporary differences	6,917	5,366
<b>Total deferred tax assets</b>	<b>849,117</b>	<b>760,798</b>
Differences between depreciation recorded for accounting and tax purposes	(381,988)	(373,294)
Other taxable temporary differences	(65,546)	(59,531)
<b>Total deferred tax liabilities</b>	<b>(447,534)</b>	<b>(432,825)</b>
<b>NET DEFERRED TAXES</b>	<b>401,583</b>	<b>327,974</b>

#### Note 15. Intangible assets

Intangible assets essentially comprise purchased or internally designed and developed software. The Group recognised no impairment on intangible assets at 31 December 2021 or 2020.

Increases in gross value include acquisitions of assets and reclassifications. Decreases in gross value

include disposals, retirements and reclassifications. Reclassifications mainly reflect the transfer of an asset from "intangible assets in progress" to the corresponding asset account when an asset is commissioned.

#### 15.1 AT 31 DECEMBER 2021

(in thousands of euros)	31.12.2020	Increases	Decreases	31.12.2021
Intangible assets in progress	207,935	119,080	(82,820)	244,195
Other intangible assets	1,014,217	89,871	6,449	1,110,537
<b>Intangible assets, gross</b>	<b>1,222,151</b>	<b>208,951</b>	<b>(76,731)</b>	<b>1,354,731</b>
Amortisation	(791,914)	(72,099)	137	(863,876)
<b>Intangible assets, net</b>	<b>430,238</b>	<b>136,851</b>	<b>(76,234)</b>	<b>490,855</b>

#### 15.2 AT 31 DECEMBER 2020

(in thousands of euros)	31.12.2019	Increases	Decreases	31.12.2020
Intangible assets in progress	160,753	119,709	(72,527)	207,935
Other intangible assets	942,112	72,445	(340)	1,014,217
<b>Intangible assets, gross</b>	<b>1,102,865</b>	<b>192,154</b>	<b>(72,868)</b>	<b>1,222,151</b>
Amortisation	(726,610)	(65,644)	340	(791,914)
<b>Intangible assets, net</b>	<b>376,254</b>	<b>126,511</b>	<b>(72,527)</b>	<b>430,238</b>

**Note 16. Property, plant and equipment**

The Group recognised no impairment on property, plant and equipment at 31 December 2021 or 2020.

Increases in gross value include acquisitions of assets and reclassifications. Decreases in gross value include disposals, retirements and reclassifications. Reclassifications mainly reflect the transfer of an asset from “property, plant and equipment in progress” to the corresponding asset account when an asset is commissioned.

**16.1 AT 31 DECEMBER 2021**

(in thousands of euros)	31.12.2020	Increases	Decreases	31.12.2021
Land	184,792	9,741	(1,346)	193,187
Buildings (including IFRS 16 right-of-use assets)*	3,201,710	150,064	(21,867)	3,329,907
Networks	27,165,666	1,305,734	(133,664)	28,337,735
Other installations, machinery and equipment	1,250,835	127,927	(7,196)	1,371,565
Other property, plant and equipment	497,017	31,611	(5,928)	522,700
Property, plant and equipment in progress	2,608,256	1,485,671	(1,635,036)	2,458,891
<b>Property, plant and equipment, gross</b>	<b>34,908,276</b>	<b>3,110,748</b>	<b>(1,805,038)</b>	<b>36,213,986</b>
Land improvements	(69,405)	(3,079)	788	(71,697)
Buildings (including IFRS 16 right-of-use assets)	(1,490,706)	(90,453)	819	(1,580,340)
Networks	(13,737,448)	(713,184)	121,344	(14,329,288)
Other installations, machinery and equipment	(888,741)	(70,292)	6,553	(952,479)
Other property, plant and equipment	(323,080)	(36,739)	5,811	354,008
<b>Depreciation</b>	<b>(16,509,379)</b>	<b>(913,747)</b>	<b>135,314</b>	<b>(17,287,812)</b>
<b>Property, plant and equipment, net</b>	<b>18,398,896</b>	<b>2,197,001</b>	<b>(1,669,724)</b>	<b>18,926,174</b>

\* IFRS 16 right-of-use assets.

At 31 December 2021, the Group has not recognised any impairment on its right-of-use assets.

Increases in gross value include rights to use buildings. Decreases in gross value correspond to extinction of the right of use related to commercial leases.

(in thousands of euros)	01.01.2021	Increases	Decreases	31.12.2021
Commercial leases	243,636	13,097	(19,244)	237,489
Vehicle leases	4,722	-	-	4,722
<b>Gross value</b>	<b>248,359</b>	<b>13,097</b>	<b>(19,244)</b>	<b>242,212</b>
Commercial leases	(2,319)	(27,702)	15,725	(14,297)
Vehicle leases	(3,125)	(1,562)	-	(4,687)
<b>Depreciation</b>	<b>(5,449)</b>	<b>(29,265)</b>	<b>15,725</b>	<b>(18,989)</b>
<b>Net value</b>	<b>242,910</b>	<b>(16,168)</b>	<b>(3,519)</b>	<b>223,223</b>

**16.2 AT 31 DECEMBER 2020**

(in thousands of euros)	31.12.2019	Increases	Decreases	31.12.2020
Land	176,555	8,763	(526)	184,792
Buildings (including IFRS 16 right-of-use assets)*	3,072,124	183,272	(53,686)	3,201,710
Networks	26,591,104	694,042	(119,481)	27,165,666
Other installations, machinery and equipment	1,170,406	85,502	(5,073)	1,250,835
Other property, plant and equipment	484,022	31,579	(18,584)	497,017
Property, plant and equipment in progress	2,178,020	1,440,811	(1,010,575)	2,608,256
<b>Property, plant and equipment, gross</b>	<b>33,672,230</b>	<b>2,443,969</b>	<b>(1,207,924)</b>	<b>34,908,276</b>
Land improvements	(66,592)	(2,813)		(69,405)
Buildings (including IFRS 16 right-of-use assets)	(1,438,338)	(105,092)	52,724	(1,490,706)
Networks	(13,171,159)	(687,593)	121,304	(13,737,448)
Other installations, machinery and equipment	(827,379)	(66,275)	4,914	(888,741)
Other property, plant and equipment	(292,032)	(36,654)	5,606	(323,080)
<b>Depreciation</b>	<b>(15,795,500)</b>	<b>(898,427)</b>	<b>184,548</b>	<b>(16,509,379)</b>
<b>Property, plant and equipment, net</b>	<b>17,876,730</b>	<b>1,545,542</b>	<b>(1,023,375)</b>	<b>18,398,896</b>

\* IFRS 16 right-of-use assets.

At 31 December 2020, the Group had not recognised any impairment on its right-of-use assets.

Increases in gross value include rights to use buildings. Decreases in gross value correspond to extinction of the right of use related to commercial leases.

(in thousands of euros)	01.01.2020	Increases	Decreases	31.12.2020
Commercial leases	249,334	42,373	(48,070)	243,636
Vehicle leases	4,722	-	-	4,722
<b>Gross value</b>	<b>255,618</b>	<b>42,373</b>	<b>(48,070)</b>	<b>248,359</b>
Commercial leases	(18,752)	(31,637)	48,070	(2,319)
Vehicle leases	(1,562)	(1,566)	-	(3,129)
<b>Depreciation</b>	<b>(20,315)</b>	<b>(33,204)</b>	<b>48,070</b>	<b>(5,449)</b>
<b>Net value</b>	<b>235,303</b>	<b>9,168</b>	<b>-</b>	<b>242,910</b>

**Note 17. Investments in associates**

Details of investments in associates are as follows:

(in thousands of euros)	31.12.2021			31.12.2020		
	% capital held	Share of equity	Share of net income	% capital held	Share of equity	Share of net income
HGRT	34%	31,214	3,698	34%	31,256	3,368
Coreso	16%	830	237	16%	760	254
<b>TOTAL</b>		<b>32,044</b>	<b>3,936</b>		<b>32,016</b>	<b>3,622</b>

**Note 18. Financial assets****18.1 BREAKDOWN BETWEEN CURRENT AND NON-CURRENT FINANCIAL ASSETS**

Current and non-current financial assets break down as follows:

(in thousands of euros)	31.12.2021			31.12.2020		
	Current	Non-current	Total	Current	Non-current	Total
Financial assets	1,088,912	4,626	1,093,538	1,954,865	2,080	1,956,945
Loans and financial receivables <sup>(1)</sup>	103,275	10,591	113,866	8,204	11,709	19,913
<b>FINANCIAL ASSETS</b>	<b>1,192,187</b>	<b>15,217</b>	<b>1,207,404</b>	<b>1,963,069</b>	<b>13,789</b>	<b>1,976,858</b>

(1) Net of impairment.

**18.2 CHANGE IN CURRENT AND NON-CURRENT FINANCIAL ASSETS**

The change in financial assets breaks down as follows:

**18.2.1 AT 31 DECEMBER 2021**

(in thousands of euros)	31.12.2020	Increases	Decreases	Changes in fair value	Impairment	31.12.2021
Financial assets	1,956,945	3,503,111	(4,367,057)	540		1,093,538
Loans and financial receivables	19,914	154,311	(60,347)		(11)	113,867
<b>Financial assets</b>	<b>1,976,858</b>	<b>3,657,422</b>	<b>(4,427,404)</b>	<b>540</b>	<b>(11)</b>	<b>1,207,405</b>

**18.2.2 AT 31 DECEMBER 2020**

(in thousands of euros)	31.12.2019	Increases	Decreases	Changes in fair value	Impairment	31.12.2020
Financial assets	1,311,697	3,692,211	(3,044,442)	(2,522)		1,956,945
Loans and financial receivables	13,370	15,528	(8,974)		(11)	19,914
<b>Financial assets</b>	<b>1,325,067</b>	<b>3,707,740</b>	<b>(3,053,415)</b>	<b>(2,522)</b>	<b>(11)</b>	<b>1,976,858</b>

**18.3 BREAKDOWN OF FINANCIAL ASSETS**

(in thousands of euros)	31.12.2021			31.12.2020		
	Equities	Debt securities/ investment funds	Total	Equities	Debt securities/ investment funds	Total
Liquid assets		1,088,912	1,088,912		1,954,865	1,954,865
Other securities	4,626		4,626	2,080		2,080
<b>Financial assets</b>	<b>4,626</b>	<b>1,088,912</b>	<b>1,093,538</b>	<b>2,080</b>	<b>1,954,865</b>	<b>1,956,945</b>

Liquid assets are financial assets consisting mostly of investment funds or negotiable debt instruments with maturity of over three months at the acquisition date, that are readily convertible into cash and are managed according to a liquidity-oriented

policy. they are stated at fair value, determined under the principles presented in note 2.15. in view of the characteristics of the investment funds, the fair value at 31 December 2021 was lower than their acquisition cost.

**Note 19. Inventories**

Inventories mostly consist of technical equipment for internal use.

(in thousands of euros)	31.12.2021	31.12.2020
<b>Inventories, gross value</b>	<b>152,587</b>	<b>165,359</b>
Impairment	(19,058)	(18,261)
<b>Inventories, net value</b>	<b>133,529</b>	<b>147,098</b>

“Inventories, gross value” includes €31 million of capacity guarantee certificates. No impairment is recognised in connection with capacity guarantees.

**Note 20. Trade and similar receivables**

(in thousands of euros)	31.12.2021	31.12.2020
<b>Trade and similar receivables, gross value</b>	<b>1,740,800</b>	<b>1,187,361</b>
Provisions	(36,966)	(3,454)
<b>Trade and similar receivables, net value</b>	<b>1,703,833</b>	<b>1,183,906</b>

All trade receivables mature within one year.



The credit risk on trade and similar receivables is shown below:

(in thousands of euros)	31.12.2021			31.12.2020		
	Gross values	Provisions	Net values	Gross values	Provisions	Net values
<b>Trade receivables</b>	<b>1,740,800</b>	<b>(36,966)</b>	<b>1,703,833</b>	<b>1,187,361</b>	<b>(3,454)</b>	<b>1,183,906</b>
overdue by less than 6 months	1,988	(624)	1,363	19,867	124	19,990
overdue by 6-12 months	7,798	(3,497)	4,301	4,681	(10)	4,671
overdue by more than 12 months	6,131	(2,894)	3,237	6,624	(3,282)	3,342
<b>Total overdue</b>	<b>15,917</b>	<b>(7,016)</b>	<b>8,901</b>	<b>31,172</b>	<b>(3,168)</b>	<b>28,003</b>
<b>Trade receivables not yet due</b>	<b>1,724,882</b>	<b>(29,950)</b>	<b>1,694,932</b>	<b>1,156,189</b>	<b>(286)</b>	<b>1,155,903</b>

Most trade receivables not yet due concern invoices not yet issued.

#### Note 21. Other receivables

(in thousands of euros)	31.12.2021	31.12.2020
Payments in advance	88,608	28,580
Other receivables	214,288	170,701
Prepaid expenses	11,557	14,843
<b>Other receivables, gross value</b>	<b>314,454</b>	<b>214,123</b>
Provisions	(1,856)	(2,403)
<b>Other receivables, net value</b>	<b>312,597</b>	<b>211,720</b>

The majority of payments on other receivables are due within one year.

“Other receivables” mainly comprise amounts due from public authorities and the State, including VAT receivables.

The change in provisions on other receivables breaks down as follows:

(in thousands of euros)	31.12.2020	Increases	Decreases	31.12.2020
Provisions on other receivables	(2,403)	(0)	547	(1,856)

**Note 22. Cash and cash equivalents**

Cash and cash equivalents as stated in the cash flow statement include the following amounts recorded in the balance sheet:

(in thousands of euros)	31.12.2021	31.12.2020
Cash	215,930	193,269
Cash equivalents	0	0
<b>Cash and cash equivalents</b>	<b>215,930</b>	<b>193,269</b>

**Note 23. Equity****23.1 SHARE CAPITAL**

At 31 December 2021, the share capital amounted to €2,132,285,690 and comprised 213,228,569 fully subscribed and paid-up shares with nominal value of €10 each, held by CTE.

In application of article 7 of the law of 9 August 2004, all of RTE's share capital must be held by EDF, the French State, or other public-sector companies or organisations.

**23.2 DIVIDENDS**

On 8 June 2021, the Supervisory Board approved the proposal put forward by the shareholders at their General Meeting held the same day to pay a dividend of €313 million or approximately €1.47 per share.

**Note 24. Provisions****24.1 BREAKDOWN BETWEEN CURRENT AND NON-CURRENT PROVISIONS**

The breakdown between current and non-current provisions is as follows:

(in thousands of euros)	31.12.2021			31.12.2020		
	Current	Non-current	Total	Current	Non-current	Total
Provisions for employee benefits	87,126	2,386,339	2,473,465	106,918	2,112,789	2,219,707
Other provisions	23,214	35,456	58,670	25,727	26,601	52,328
<b>Provisions</b>	<b>110,340</b>	<b>2,421,795</b>	<b>2,532,135</b>	<b>132,646</b>	<b>2,139,389</b>	<b>2,272,035</b>

## 24.2 EMPLOYEE BENEFITS

### 24.2.1 BREAKDOWN OF CHANGES IN PROVISIONS FOR EMPLOYEE BENEFITS

(in thousands of euros)	Obligations	Fund assets	Provision in the balance sheet
<b>Balance at 31.12.2020</b>	<b>2,301,381</b>	<b>(81,673)</b>	<b>2,219,707</b>
Net expense for 2021	129,630	(735)	128,895
Actuarial gains and losses	215,389	(3,681)	211,708
long-term benefits	(3,091)	-	(3,091)
post-employment benefits	218,479	(3,681)	214,799
Contributions to funds	-	-	-
Benefits paid	(83,475)	4,395	(79,081)
Other (IFRIC 4)	(7,765)	-	(7,765)
<b>BALANCE AT 31.12.2021</b>	<b>2,555,160</b>	<b>(81,695)</b>	<b>2,473,465</b>

The change in provisions since 31 December 2021 results from changes in vested benefits, discounting of the liability, payments to external funds, benefits paid, changes in actuarial gains and losses and the past service cost.

Other (IFRIC 4): in May 2021, the IASB (International Accounting Standards Board) approved the position

taken by the IFRS Interpretations Committee (IFRIC 2021-04) in its Agenda Decision "Attributing Benefit to Periods of Service (IAS 19 Employee Benefits)". In the RTE Group, the scope of application of this IFRIC decision is limited to the calculation methods for retirement gratuities. The effect of application of this decision is recognised at the start of the year, i.e. at 1 January 2021 in retained earnings (€7,765,000).

### 24.2.2 POST-EMPLOYMENT AND LONG-TERM EMPLOYEE BENEFIT EXPENSES

(in thousands of euros)	31.12.2021	31.12.2020
Current service cost	108,398	92,680
Actuarial gains and losses – long-term benefits	(3,091)	15,199
Plan curtailments or settlements	-	-
<b>Net expenses included in operating expenses</b>	<b>105,307</b>	<b>107,879</b>
Interest expense (discount effect)	21,233	26,653
Return on fund assets	(735)	(1,002)
<b>Net expenses included in financial result</b>	<b>20,498</b>	<b>25,651</b>
<b>Employee benefit expense recorded in the income statement</b>	<b>125,805</b>	<b>133,530</b>
Actuarial gains and losses – post-employment benefits	218,479	257,799
Actuarial gains and losses – fund assets	(3,681)	(8,079)
<b>Actuarial gains and losses</b>	<b>214,799</b>	<b>249,720</b>
<b>Gains and losses on employee benefits recorded directly in equity</b>	<b>214,799</b>	<b>249,720</b>

Actuarial gains and losses on post-employment benefits break down as follows:

(in thousands of euros)	Long-term benefits	Post-employment benefits	31.12.2021
Experience adjustments	(7,070)	148,884	141,815
Changes in demographic assumptions	2,060	13,401	15,461
Changes in financial assumptions <sup>(1)</sup>	1,919	56,194	58,114
<b>Actuarial gains and losses on obligations</b>	<b>(3,091)</b>	<b>218,479</b>	<b>215,389</b>

(1) Financial assumptions mainly concern the discount rate, inflation rate and wage increase rate.

### 24.2.3 BREAKDOWN BY NATURE OF PROVISIONS FOR EMPLOYEE BENEFITS

(in thousands of euros)	Obligations	Fund assets	Provision in the balance sheet
<b>Provisions for post-employment benefits at 31 December 2021</b>	<b>2,394,185</b>	<b>(81,695)</b>	<b>2,312,490</b>
including:			
Pensions	743,950		743,950
Benefits in kind (energy)	1,391,722		1,391,722
Retirement gratuities	88,782	(81,695)	7,088
Bereavement benefit	117,986		117,986
Other post-employment benefits	51,744		51,744
<b>Provisions for post-employment benefits at 31 December 2020</b>	<b>160,975</b>		<b>160,975</b>
including:			
Annuities following invalidity, industrial accident or work-related illness	91,590		91,590
Long-service awards	20,407		20,407
Other long-term benefits	48,978		48,978
<b>Provisions for employee benefits at 31 December 2020</b>	<b>2,555,160</b>	<b>(81,695)</b>	<b>2,473,465</b>

Fund assets amounted to €82 million at 31 December 2021 (€82 million at 31 December 2020).

They cover retirement gratuities and take the form of insurance contracts comprising 33.16% equities and 66.84% bonds at 31 December 2021 (respectively 36.8% and 63.2% at 31 December 2020).

#### 24.2.4 FUTURE CASH FLOWS

Cash flows related to future employee benefits are as follows:

(in thousands of euros)	31.12.2021	
	Cash flow under year-end economic conditions	Amount covered by provision (present value)
Less than one year	72,518	72,051
One to five years	263,028	253,249
Five to ten years	275,985	250,626
More than ten years	3,054,304	1,979,234
<b>Cash flows related to employee benefits</b>	<b>3,665,835</b>	<b>2,555,160</b>

#### 24.2.5 ACTUARIAL ASSUMPTIONS

The main actuarial assumptions used in calculating employee benefit obligations are summarised below:

(in %)	2021	2020
Discount rate / Return on fund assets	1.30%	0.90%
Inflation rate	1.70%	1.20%

#### 24.2.6 SENSITIVITY ANALYSIS

(in %)	2021	2020
Impact of a 25 bp increase or decrease in the discount rate		
• on the amount of the obligation	-6.1% / +6.7%	-6.0% / +6.6%
• on the net expense for the following year	-3.4% / +3.7%	-3.3% / +3.6%
Impact of a 25 bp increase or decrease in the inflation rate		
• on the amount of the obligation	+6.4% / -5.8%	+6.2% / -5.6%
• on the net expense for the following year	+8% / -7.2%	+7.9% / -7.1%

## 24.3 OTHER PROVISIONS

Details of changes in other provisions are as follows:

(in thousands of euros)	31.12.2020	Increases	Decreases <sup>(1)</sup>		Other movements	31.12.2021
			Utilisations	Reversals		
Employer contribution to profit sharing	16,266	15,911	(16,266)			15,911
Other provisions	36,062	17,070	(10,709)		336	42,759
<b>Other provisions</b>	<b>52,328</b>	<b>32,981</b>	<b>(26,975)</b>	<b>0</b>	<b>336</b>	<b>58,670</b>

(1) Only provisions utilised.

“Other provisions” notably include provisions relating to an indemnification agreement, a litigation with social security bodies and the tax inspection.

## 24.4 CONTINGENT LIABILITIES

The Group was a lessor in two construction leases which terminated in 2019. Discussions are continuing with the counterparty about the scope of RTE’s obligations in connection with these leases. The outflow of resources will be recognised in RTE’s fixed assets.

### Note 25. Financial liabilities

## 25.1 BREAKDOWN BETWEEN CURRENT AND NON-CURRENT FINANCIAL LIABILITIES

Current and non-current financial liabilities break down as follows:

(in thousands of euros)	31.12.2021			31.12.2020		
	Non-current	Current	Total	Non-current	Current	Total
Bonds	8,436,454	806,681	9,243,135	9,177,924	835,551	10,013,475
Other financial liabilities (including the IFRS 16 lease liability) <sup>(1)</sup>	1,385,602	481,369	1,866,971	1,396,037	542,921	1,938,957
<b>Financial liabilities</b>	<b>9,822,056</b>	<b>1,288,050</b>	<b>11,110,106</b>	<b>10,573,961</b>	<b>1,378,472</b>	<b>11,952,433</b>

(1) The IFRS 16 lease liability amounts to €254,401,000 at 31 December 2021.

“Other financial liabilities” essentially include RTE’s borrowings from the European Investment Bank, amounting to €1,150 million at 31 December 2021 (€1,250 million at 31 December 2020), and the IFRS 16 lease liability amounting to €254 million.

## 25.2 LOANS AND OTHER FINANCIAL LIABILITIES

### 25.2.1 CHANGES IN LOANS AND OTHER FINANCIAL LIABILITIES

(in thousands of euros)	Bonds	Other financial liabilities (including the IFRS 16 lease liability) <sup>(1)</sup>	Accrued interest	Total
Balance at 31 December 2019	8,678,149	2,072,118	82,775	10,833,041
Increases	1,250,297	5,532,017	1,124,880	7,907,194
Decreases	(3,450)	(5,665,245)	(1,119,107)	(6,787,802)
Balance at 31 December 2020	9,924,995	1,938,890	88,547	11,952,433
Increases	1,736	3,006,359	1,011,912	4,020,007
Decreases	(743,928)	(3,078,291)	(1,040,114)	(4,862,333)
<b>BALANCE AT 31 DECEMBER 2021</b>	<b>9,182,803</b>	<b>1,866,958</b>	<b>60,346</b>	<b>11,110,106</b>

(1) Including IFRS 16 lease liabilities and commercial paper (TCN).

#### Breakdown of the change in the IFRS 16 lease liability

(in thousands of euros)	IFRS 16 lease liability
Balance at 1 January 2021	274,554
Increases	13,097
Decreases	(33,249)
<b>BALANCE AT 31 DECEMBER 2021</b>	<b>254,401</b>

All debts are in euros.

Redemption of two bonds for the total amount of €750 million in February 2021 (at the interest rate of 4.13%) and repayment of a €100 million EIB loan in September 2021 (at the interest rate of 0.163%).

The nominal values of the Group's principal borrowings at 31 December 2021 are as follows:

(in thousands of euros)	Issuance date	Maturity	Amount	Currency	Rate
Bond	2010	2022	(750,000)	EUR	3.875%
Bond	2013	2023	(500,000)	EUR	2.875%
Bond	2013	2028	(100,000)	EUR	3.380%
Bond	2014	2024	(500,000)	EUR	1.625%
Bond	2014	2029	(600,000)	EUR	2.750%
Bond	2014	2034	(250,000)	EUR	2.625%
Bond	2015	2025	(1,000,000)	EUR	1.625%
Bond	2016	2026	(650,000)	EUR	1.000%
Bond	2016	2036	(700,000)	EUR	2.000%
Bond	2017	2037	(750,000)	EUR	1.875%
Bond	2018	2030	(500,000)	EUR	1.500%
Bond	2018	2038	(500,000)	EUR	2.125%
Bond	2019	2027	(500,000)	EUR	0.000%
Bond	2019	2049	(700,000)	EUR	1.125%
Bond	2020	2032	(500,000)	EUR	0.625%
Bond	2020	2040	(750,000)	EUR	1.125%

The Group's bonds contain no financial covenant-type clauses.

## 25.2.2 MATURITY OF LOANS AND OTHER FINANCIAL LIABILITIES

(in thousands of euros)	Bonds	Other financial liabilities (including the IFRS 16 lease liability) <sup>(9)</sup>	Total
Less than one year	835,551	542,921	1,378,472
From one to five years	3,389,279	148,396	3,537,675
More than five years	5,788,645	1,247,641	7,036,286
<b>Total loans and other financial liabilities at 31 December 2020</b>	<b>10,013,475</b>	<b>1,938,957</b>	<b>11,952,433</b>
Less than one year	808,263	481,369	1,289,632
From one to five years	1,991,820	163,156	2,154,976
More than five years	6,443,052	1,222,447	7,665,498
<b>TOTAL LOANS AND OTHER FINANCIAL LIABILITIES AT 31 DECEMBER 2021</b>	<b>9,243,135</b>	<b>1,866,971</b>	<b>11,110,106</b>

### Maturity of the IFRS 16 lease liability

(in thousands of euros)	IFRS 16 lease liability
Less than one year	30,332
From one to five years	151,623
More than five years	72,447
<b>IFRS 16 LEASE LIABILITY AT 31 DECEMBER 2021</b>	<b>254,401</b>



**25.2.3 CREDIT LINE**

(in thousands of euros)	Total	Maturity		
		< 1 year	1-5 years	> 5 years
Confirmed credit line	1,500,000		1,500,000	

On 21 June 2016 RTE signed a new bank credit facility that could be used to a maximum value of €1,500 million and is available for a period of five years, and was extendable for two further 1-year periods. At 31 December 2021, the amount available on this credit facility was €1,500 million.

**25.2.4 FAIR VALUE OF LOANS AND OTHER FINANCIAL LIABILITIES**

(in thousands of euros)	31.12.2021		31.12.2020	
	Fair value	Net book value	Fair value	Net book value
Bonds	10,390,685	9,243,135	11,893,397	10,013,475
Loan from EIB	1,130,938	1,150,000	1,275,838	1,250,000
<b>TOTAL</b>	<b>11,521,623</b>	<b>10,393,135</b>	<b>13,169,235</b>	<b>11,263,475</b>

**25.3 NET INDEBTEDNESS**

Net indebtedness is not defined by accounting standards. It comprises total loans and financial liabilities, less cash and cash equivalents and liquid assets. Liquid assets are financial assets consisting of funds or negotiable debt instruments with initial maturity of over three months that are readily convertible into cash, and are managed according to a liquidity-oriented policy.

(in thousands of euros)	31.12.2021	31.12.2020
Loans and other financial liabilities	11,110,106	11,952,433
Cash and cash equivalents	(215,930)	(193,269)
Current financial assets	(1,192,187)	(1,963,069)
<b>Net indebtedness</b>	<b>9,701,990</b>	<b>9,796,094</b>

## 25.4 CHANGE IN NET INDEBTEDNESS

(in thousands of euros)	2021	2020
<b>Operating profit before depreciation and amortisation (EBITDA)</b>	<b>2,094,866</b>	<b>1,914,832</b>
Cancellation of non-monetary items included in EBITDA	29,057	5,973
Change in working capital	116,574	(159,208)
Other	0	0
<b>Net cash flow from operations</b>	<b>2,240,496</b>	<b>1,761,597</b>
Acquisitions of property, plant and equipment and intangibles	(1,579,591)	(1,532,105)
Disposals of property, plant and equipment and intangibles	3,047	47,743
Net financial expenses disbursed	(203,506)	(193,185)
Income tax paid	(266,505)	(215,554)
<b>Free cash flow</b>	<b>193,942</b>	<b>(131,504)</b>
Repayment of the lease liability	20,153	(15,248)
<b>Adjusted free cash flow</b>	<b>214,094</b>	<b>(146,752)</b>
Investments net of disposals	(1,077)	4,275
Dividends paid	(312,703)	(408,553)
Investment subsidies	166,663	131,358
Other changes	(10,168)	(4,917)
<b>(Increase)/Decrease in net indebtedness, excluding the impact of changes in scope of consolidation and exchange rates</b>	<b>56,810</b>	<b>(424,588)</b>
Effect of other non-monetary changes	37,295	(10,489)
<b>(Increase)/Decrease in net indebtedness</b>	<b>94,105</b>	<b>(435,078)</b>
<b>Net indebtedness at beginning of period</b>	<b>(9,796,094)</b>	<b>(9,361,016)</b>
<b>NET INDEBTEDNESS AT END OF PERIOD</b>	<b>(9,701,990)</b>	<b>(9,796,094)</b>

### Note 26. Management of financial risks

See section 6.5 of the Management report, “Financial risks”.

## Note 27. Derivatives

The Group may use derivatives in a range of hedging or macro-hedging strategies to limit the interest rate risk.

Details of interest rate hedging derivatives held for trading (interest rate swaps) that are not classified as hedges are as follows at 31 December 2021:

(in thousands of euros)	Notional at 31.12.2021				Notional at 31.12.2020	Fair value	
	< 1 year	1 to 5 years	> 5 years	Total	Total	31.12.2021	31.12.2020
Fixed rate payer / floating rate receiver	-	-	-	-	700,000		(123)
Floating rate payer / fixed rate receiver	-	-	-	-			
<b>Derivatives</b>	-	-	-	-	<b>700,000</b>	-	<b>(123)</b>

The amount hedged at 31 December 2021 is nil. RTE no longer has any hedging instruments in its portfolio.

## Note 28. Trade and other payables

Details of trade and other payables are as follows:

(in thousands of euros)	31.12.2021	31.12.2020
Advance payments received	382,756	273,993
Trade payables	1,552,869	915,522
Tax and social charges	656,048	619,963
Deferred income	1,328,908	1,203,579
Other	10,596	9,369
<b>Trade and other payables</b>	<b>3,931,178</b>	<b>3,022,427</b>

**Note 29. Related parties****29.1 TRANSACTIONS WITH EDF AND COMPANIES CONTROLLED BY EDF**

Details of the main transactions with EDF or companies controlled by EDF (Enedis, EDF Trading, etc.) are as follows:

(in thousands of euros)	31.12.2021	31.12.2020
<b>Financial assets</b>		
Investments		
<b>Other assets</b>		
Trade and similar receivables	1,225,506	991,387
Other receivables		
Advances and progress payments on orders		
<b>Financial liabilities</b>		
<b>Other liabilities</b>		
Advances and progress payments on orders	87,446	93,390
Trade and similar payables	382,193	93,737
Other liabilities		
<b>Operating income and expenses</b>		
Sales	3,872,384	3,580,834
Purchases for operation of the electricity system	717,667	248,614

“Trade and similar receivables” and “Sales” essentially correspond to invoicing for access to the electricity transmission network.

All transactions with related parties take place under normal market conditions and require the approval of the CRE, in application of article L. 111.17 of the French Energy Code.

**29.2 RELATIONS WITH THE FRENCH STATE AND OTHER ENTITIES OWNED BY THE STATE**

In accordance with the legislation applicable to all companies having the French State as their majority shareholder, RTE is subject to certain inspection procedures, in particular economic and financial

inspections by the State, audits by the French Court of Auditors (*Cour des comptes*) or Parliament, and verifications by the French General Finance Inspectorate (*Inspection générale des finances*).

The French State intervenes through the regulation of electricity and gas markets, particularly for establishment of transmission tariffs, setting the ARENH price (for regulated access to historical nuclear electricity) under the “NOME” law for modernisation of the electricity market, and determining the level of the Contribution to the Public Electricity Service (*Contribution au service public de l’électricité* or CSPE).

The Group carries out transactions with certain public-sector entities, essentially for invoicing of network access.

## 29.3 BOARD COMPENSATION

The Group's key management personnel are the members of the Executive Board and the Supervisory Board.

(in euros)	2021	2020
Compensation of Executive Board members	1,285,205	1,342,086
Compensation of Supervisory Board members <sup>(1)</sup>	366,415	353,145
<b>TOTAL</b>	<b>1,651,620</b>	<b>1,695,232</b>

(1) Other than members representing shareholders and the State.

The compensation paid to members of the Executive Board includes short-term benefits (basic salaries, performance-related salary, benefits in kind and indemnities) excluding social security charges.

The compensation paid to Supervisory Board members comprises the salary and benefits in kind (excluding social security charges) paid by RTE to the Chairman of the Supervisory Board and board

members who are employee representatives and have an employment contract with the Group.

Board members who belong to the IEG regime benefit from the employee benefits (as defined by IAS 19) attached to that status. They receive no other special pension system, starting bonus or severance payment.

### Note 30. Statutory Auditors' fees

The following table sets forth the fees paid to the Statutory Auditors for services during the 2021 financial year:

(in thousands of euros)	KPMG	Mazars
Statutory audit of RTE's individual and consolidated financial statements	425	408
Review of the individual financial statements of fully-consolidated entities	19	34
Non-audit services	40	42
<b>TOTAL</b>	<b>485</b>	<b>484</b>

### Note 31. Environment

Expenses for the protection of the environment are described in chapter 7 of the Group's 2021 management report.

### Note 32. Subsequent events

None.

### Note 33. Scope of consolidation

The scope of consolidation at 31 December 2021 is as follows:

Company	Head office	% ownership	% voting rights	Consolidation method	Business sector
<b>RTE – Réseau de transport d'électricité</b>	Immeuble Window 7C, place du Dôme 92073 Paris-La Défense			Parent company	T
<b>ARTERIA</b>		100%	100%	FC	S
<b>RTE INTERNATIONAL</b>		100%	100%	FC	S
<b>RTE IMMO</b>		100%	100%	FC	S
<b>AIRTELIS</b>		100%	100%	FC	S
<b>CIRTEUS</b>		100%	100%	FC	S
<b>IFA 2</b>		50%	50%	JO	S
<b>HGRT</b>		34%	34%	EM	S
<b>RTE I Netherlands</b>	Spakenburgkade 51 3826CN Amersfoort Pays-Bas	90%	90%	FC	S
<b>INELFE</b>	Tour Cœur Défense B 100, esplanade du Général de Gaulle 92932 Paris-La Défense Cedex	50%	50%	JO	S
<b>CORESO</b>	71, avenue de Cortenbergh 1000 Bruxelles	16%	16%	EM	S

Consolidation methods: FC = full consolidation, JO = joint operation, EM = accounted for under the equity method.  
Business segments: T = Transmission, S = Services.

**RTE S.A.**

Immeuble Window  
7C, place du Dôme  
92073 La Défense

**KPMG Audit**

Tour EQHO  
2, avenue Gambetta  
CS 60055  
92066 Paris-la Défense Cedex  
France

**Mazars**

Tour Exaltis  
61, rue Henri Regnault  
92400 Courbevoie-la Défense

## STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

*This is a translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.*

*This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the management report and other documents provided to shareholders.*

*This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

For the year ended 31 December 2021

### To the Annual General Meeting of RTE S.A.,

#### OPINION

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of RTE S.A. for the year 31 December 2021.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at 31 December 2021 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee (*Comité de supervision économique et d'audit*).

#### BASIS FOR OPINION

##### Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

#### Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (*Code de commerce*) and the French Code of Ethics (*Code de déontologie*) for Statutory Auditors for the period from 1 January 2021 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in article 5(1) of Regulation (EU) No. 537/2014.

#### JUSTIFICATION OF ASSESSMENTS – KEY AUDIT MATTERS

Due to the global crisis related to the Covid-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the state of sanitary emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties on their future prospects. Those measures, such as travel restrictions and remote working, have also had an impact on the companies' internal organization and the performance of the audits.

It is in this complex and evolving context that, in accordance with the requirements of articles L. 823-9 and R. 823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters

relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

## REGULATED ENVIRONMENT

*Notes 2.7 "Sales", 2.13 "Property, plant and equipment", 3.1.2 "TURPE 6" et 7 "Energy purchases"*

Description of risk	How our audit addressed this risk
<p>RTE is overseen by the French Energy Regulatory Commission (CRE). The tariff mechanism is set to cover all of RTE's costs, insofar as they reflect the cost of an efficient system operator and makes it possible to smooth and rectify the effects of certain climatic events or economic risk which can impact the electricity transmission in France.</p> <p>The tariff authorized by the CRE sets the targets of significant investments planned, operational costs and interconnections revenues over periods of four years. The TURPE (<i>tarif d'utilisation des réseaux public d'électricité</i>) 5 has been from 1 January 2017 to 31 December 2020 and the TURPE 6 from 1 January 2021 to 31 December 2024.</p> <p>The CRCP (<i>compte de régulation des charges et des produits</i>) account for each period records the differences between forecasts and actual results on certain items (network access, energy purchases to compensate for network losses, interconnections) the CRE considers difficult to forecast or difficult to control. These differences are then passed on to network users through future tariff adjustments.</p> <p>In addition to the tariff, the CRE also sets out a regulatory framework to encourage RTE to improve its performance by setting up incentive mechanisms. These financial mechanisms result in bonuses or penalties, depending on whether the objectives are met.</p> <p>Compliance with defined forecasts and incentive mechanisms both are essential for the accounting of RTE's business.</p> <p>Given its impacts on the sales, on energy purchases, on opex or capex classification and on the accounting treatment of regulatory mechanisms, we deemed the regulatory environment to be a key audit matter.</p>	<p>Our work included:</p> <ul style="list-style-type: none"> <li>• having a good understanding of the regulatory mechanisms (in particular the TURPE) and of controls set by the Group for accounting sales, operating expenses and investments;</li> <li>• analyzing main financial aggregates above, and significant variations compared to the previous year to drive our work;</li> <li>• ensuring that TURPE 6, in force since 2021, new tariff conditions have been updated in the information systems;</li> <li>• checking reciprocal positions declared by Enedis facing RTE;</li> <li>• reconciling, on a sample basis, data from the Joint Allocation Office (joint auction office with several European network operators) with the interconnections revenues;</li> <li>• testing, on a sample basis, sales booked as revenue and assess the accounting classification used;</li> <li>• testing, on a sample basis, operating expenses booked in the income statement and assess the accounting classification used;</li> <li>• analyzing main projects of the period, in order to test their commissioning dates, and check the new investment subsidies;</li> <li>• testing, on a sample basis, capital expenditure booked as assets in the balance sheet to ensure they meet the accounting rules and principles described in note 2.13;</li> <li>• analyzing effects of regulatory mechanisms, in particular on energy purchases;</li> <li>• appreciate the information provided in the appendix.</li> </ul>



## SPECIFIC VERIFICATIONS

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the Group's information given in the management report of the Executive Board.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by article L. 225-102-1 of the French Commercial Code (*Code de commerce*), is included in the Group's management report, it being specified that, in accordance with the provisions of article L. 823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein and this information must be reported by an independent third party.

## REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

### Appointment of the Statutory Auditors

We were appointed as Statutory Auditors of RTE S.A. by the Annual General Meeting held on 30 May 2017 for KPMG and on 19 June 2009 for Mazars.

As at 31 December 2021, KPMG and Mazars were in the 5<sup>th</sup> year and 13<sup>th</sup> year of total uninterrupted engagement.

### Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclo-

sing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Management Board.

## STATUTORY AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

### Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than

for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the Statutory Auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an

opinion on the consolidated financial statements. The Statutory Auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

### Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters, that we are required to describe in this audit report.

We also provide the Audit Committee with the declaration provided for in article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by articles L. 822-10 to L. 822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for Statutory Auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris La Défense, on the 15 February 2022

### The Statutory Auditors French original signed by

**KPMG Audit**  
Department of KPMG S.A.

Jacques-François Lethu  
Partner

**Mazars**

Mathieu Mougard  
Partner

## STATUTORY AUDITOR'S REPORT ON REGULATED AGREEMENTS AND COMMITMENTS

Shareholders' Meeting for the approval of the financial statements for the year ended 31 December 2021.

*This is a translation into English of the Statutory Auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.*

*This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the management report and other documents provided to shareholders.*

*This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.*

### To the Shareholders,

In our capacity as your company's Statutory Auditors, we hereby report to you on regulated agreements and commitments.

It is our responsibility to report to shareholders, based on the information provided to us, on the main terms, conditions and reasons underlying company's interest of agreements and commitments that have been disclosed to us or that we may have identified as part of our engagement, without commenting on their relevance or substance or identifying any undisclosed agreements or commitments. Under the provisions of article of the French Commercial Code, it is the responsibility of the shareholders to determine whether the agreements and commitments are appropriate and should be approved.

Where applicable, it is also our responsibility to provide shareholders with the information required by article R. 225-58 of the French Commercial Code in relation to the implementation during the year of agreements and commitments already approved by the Shareholders' Meeting.

We performed the procedures that we deemed necessary in accordance with the guidance issued by the French Institute of Statutory Auditors (*Compagnie nationale des commissaires aux comptes*) for this type of engagement. The procedures performed consisted of verifying the agreement of the data communicated to us with the source documentation.

### AGREEMENTS AND COMMITMENTS SUBMITTED TO THE APPROVAL OF THE SHAREHOLDERS' MEETING

#### Agreements and commitments authorized during the last year

In accordance with article R. 225-88 of the French Commercial Code, we have been informed of the following agreements and commitments approved prior to your Supervisory Board.

#### — Agreement between RTE and ENEDIS on the 2018 fire at the Harcourt substation (Municipality of Issy-les-Moulineaux)

The purpose of this transaction agreement is for RTE to take over the generators deployed by ENEDIS during the incident. The compensation provided for in the Protocol amounts to €571,646 (excluding taxes) and is directly attributable to the use and operation of the generators by ENEDIS because of the incident at the RTE substation.

The conclusion of this protocol was authorized by the "Commission de Régulation de l'Énergie" by an implied decision dated 31 July 2021 and by the RTE Supervisory Board at a meeting on 18 November 2021.

#### Members of the Supervisory Board concerned:

Mr Xavier Girre, Mr Christophe Carval, Mr Sébastien Justum, also members of the Supervisory Board of ENEDIS (formerly ERDF).

## **CONTINUING AGREEMENTS AND COMMITMENTS PREVIOUSLY APPROVED BY THE GENERAL SHAREHOLDERS' MEETING**

### **Agreements and commitments approved in prior years and which remained current during the last year**

In accordance with article R. 225-57 of the French Commercial Code, we have been informed of the following agreements and commitments approved in prior years and which remained current during the last year.

#### **— Agreement between RTE and ENEDIS (formerly ERDF) dated 22 December 2011 extending the provisions adopted on the occasion of the partial transfer of assets by EDF**

In application of Law No. 2004-803 of 9 August 2004 and Decree No. 2005-172 of 22 February 2005 defining the consistency of the public electricity transmission network and laying down the procedures for classifying works in public electricity transmission and distribution networks. "Électricité

de France" (Réseau de distribution and EDF-GDF Services) and RTE had drawn up, on 4 April 2005, a list of the 2,131 source items into 3 groups and 8 categories determined in accordance with the aforementioned texts, specifying, depending on the category of the position, the owner of the property.

On 22 December 2011, an agreement was signed with ENEDIS (formerly ERDF), a public electricity distribution subsidiary of Électricité de France, to specify the procedures for implementing the sales of technical and real estate assets between your Company and ENEDIS (formerly ERDF).

During the 2021 financial year, the implementation of this agreement resulted in disposals of fixed assets to ENEDIS (formerly ERDF) in the amount of €1,482 thousand (excluding taxes) and acquisitions of fixed assets from ENEDIS (formerly ERDF) in the amount of €1,150 thousand (excluding taxes).

#### Members of the Supervisory Board concerned:

Mr Xavier Girre, Mr Christophe Carval, Mr Sébastien Justum, also members of the Supervisory Board of ENEDIS (formerly ERDF).

Paris La Défense, on the 15 February 2022

### **The Statutory Auditors** French original signed by

**KPMG Audit**  
Department of KPMG S.A.

Jacques-François Lethu  
Partner

**Mazars**

Mathieu Mougard  
Partner

# Appendix

## DETAILS OF METHODOLOGY FOR THE DECLARATION OF NON-FINANCIAL PERFORMANCE

To prepare the non-financial performance declaration in the 2021 management report, the finance division worked with the main departments able to meet the requirements of articles L. 225-102-1 and R. 225-105-2 of the French Commercial Code. RTE publishes a Declaration of Non-Financial Performance voluntarily; the regulatory requirement applies to CTE (*Coentreprise de transport d'électricité*).

These non-financial indicators derive from analysis of the risks presented in chapter 7 of this management report. They cover RTE's main environmental, social and societal risks.

### SCOPE OF NON-FINANCIAL REPORTING

The non-financial reporting concerns the full scope of the RTE Group, using its own methods which are applied across the whole year. The rules for inclusion in the reporting scope and consolidation of non-financial data are as follows:

- qualitative information: the scope comprises RTE SA and its fully-owned subsidiaries under exclusive control;
- quantitative environmental information: the scope comprises RTE SA and its fully-owned subsidiaries under exclusive control. Some RTE sites are installations classified for environmental protection purposes (ICPE<sup>(1)</sup>), which are included in the non-financial reporting scope. RTE does not have any "Seveso" sites;
- quantitative company information: RTE SA, excluding subsidiaries (except for the workforce numbers reported in 7.4).

Fully-owned subsidiaries under exclusive control (Arteria, Cirtéus, RTE Immo, Airtelis, RTE International) account for 1.05% of the workforce.

### COLLECTION, CONSOLIDATION, AND CONTROL OF DATA

#### — Reporting system

Each business function has its own specific computer systems for recording and consolidating the data used to form indicators.

RTE has an HR system that centralises most of the data for human resource management, taking data

from the monitoring systems and the associated supporting documents. Data on training comes from a dedicated system.

For safety reporting, in October 2018 RTE set up an IT system to dematerialise the process for declaring accidents to the CARSAT<sup>(2)</sup>.

For environmental information, the department in charge of environmental coordination uses a balanced scorecard to collect all the information required in the environmental management system. Some of these indicators are presented in the societal section of this report. There are also two dedicated information systems for biodiversity and waste management.

#### — Consolidation process

Information from the HR system is reported monthly, as of the end of each month. It is consolidated in the regions, then passed on to national level, to the department in charge of contract management and payroll.

Environmental information is consolidated by the regions, which collect data from the local sub-units on their territory. The key data are reported to the department in charge of environmental coordination at national level three times a year for the purposes of the environmental management system. Other data are reported at variable frequencies.

#### — Internal control procedures

Internal control procedures are rolled out through a network of local, regional and national correspondents.

Data consolidation at regional, then national level is subject to coherence checks, and any significant variances must be explained.

(1) IPCE: Installation classée pour la protection de l'environnement.

(2) Caisses d'assurance retraite et de la santé au travail, a pension and workplace health body.

## METHODOLOGICAL DETAILS

The indicator definitions are based on several national and international references (social review, ISO 14001 and ISO 26000).

The choice of the key performance indicators presented reflects the specificities of the activity of a transmission network operator covering French territory only, and some require technical explanation.

### — Time scope

The time scope for all indicators is 1 January to 31 December of the year concerned. In the rare event of a different time scope, a note is added in the indicator comments.

### — Definitions of specific indicators

Indicators are presented in three categories: social, environmental and societal. The table below summarises the indicators and the associated risks, giving the reference to the relevant section on RTE commitments (chapter 7).

#### Social indicators

Total workforce	Used for several KPIs <b>Chapter 7.4:</b> “Looking after employees and rewarding talents”
Accident frequency rate (employees and contractors)	<b>Chapter 7.4.1:</b> “Continuous enhancement of safety and quality of life in the working environment”
Percentage of employees who benefited from a professional development measure	<b>Chapter 7.2.2:</b> “Preserving resources (circular economy) and biodiversity, and preventing pollution” – section on Professional development for all employees
Percentage of women on management committees	<b>Chapter 7.4.4:</b> “Encouraging diversity, equal opportunities and inclusion”
Percentage of employees who benefited from training	<b>Chapter 7.4.2:</b> “Making skill development a priority”

- The social indicators presented concern the entire workforce (IEG and non-IEG status, fixed-term and permanent contracts) whose work contract is in force at 31 December of the year. RTE SA employees seconded to Group subsidiaries are therefore included. Employees on secondment to subsidiaries owned less than 100%, employees on pre-retirement paid leave and leave associated with training for promotion, and absent employees whose contracts are suspended (unpaid leave) are not included. The distribution of employees by geographical zone is not presented, as all Group entities are located in mainland France.
- Fixed-term contracts include apprenticeship and professionalisation contracts.
- The figures for work-related accidents concern all accidents at work (excluding the journey between home and work) declared by RTE and its contractors for the scopes of maintenance and development & engineering between 1 January and 31 December 2021. Accidents that happened at contractors’ premises outside these scopes are monitored by RTE but not included in calculation of the frequency rate, since the total contractors’ hours worked

is not available. The principle is that only accidents recognised by the pension and workplace health body CARSAT and the social security body CPAM<sup>(1)</sup> are included, although all accidents declared from mid-November are included regardless of the CARSAT and CPAM decisions, since those decisions can be issued up to two months after the first registration of the accident.

- To calculate the overall accident frequency rate, the ratio of “fatal accidents at work/ hours worked” is used for both RTE employees and contractors’ employees. The number of accidents at work comprises accidents that happened to RTE employees and accidents that happened to contractors’ employees recorded for operations undertaken by the two main entities (maintenance, and development & engineering). The volume of hours worked is calculated on the following basis: for RTE employees, it comprises actual hours worked, considered equivalent to theoretical hours worked as defined in their contracts, plus overtime, less absences; for contractors, the number of hours consumed is based on the amounts validated in contracts for transmission network infrastructures,

(1) Caisse primaire d’assurance maladie.

painting and pruning issued by the three main RTE functions working with contractors (maintenance, development, engineering).

- Percentage of women in the management committees: this indicator excludes members of the Executive Committee and the Executive Board. It includes members of the management committees for the establishments, centres and sections.
- Employee pride score: this indicator is taken directly from RTE's internal "social barometer" survey, which is published annually.

- Percentage of employees who benefited from a professional development measure (total): this is the percentage of RTE's total workforce at year-end (excluding management executives) who attended at least one training or awareness-raising session during the year. Anyone starting a professional development measure during the year is counted, regardless of whether it was completed in 2021 or not.
- Percentage of employees trained in the Sapin 2 law: this is the percentage of RTE's total at year-end (excluding management executives, and employees on pre-retirement paid leave) who have followed and completed the "Sapin 2 anti-corruption law" e-learning course since the module was launched.

### Environmental indicators

Waste recycling rate	<b>Chapter 7.2.2:</b> "Preserving resources (circular economy) and biodiversity, and preventing pollution" – section on Circular economy and waste management
Area of land made biodiversity-friendly	<b>Chapter 7.2.2:</b> "Preserving resources (circular economy) and biodiversity, and preventing pollution" – section on Developing biodiversity below the lines
Percentage of "zero-phyto" sites	<b>Chapter 7.2.2:</b> "Preserving resources (circular economy) and biodiversity, and preventing pollution" – section on The "zero-phyto" objective
Renewable energy power connected to the HTB high voltage network	<b>Chapter 5.3.2.1:</b> "Facilitating the expansion of renewable energies and changes in the energy mix»
Equivalent outage time for the year	<b>Chapter 7.3.1:</b> "Greater sensitivity to the quality of electricity"
Equivalent outage time caused by weather events	<b>Chapter 7.1.2:</b> "Non-financial risks"
Volume of SF <sub>6</sub> leaks	<b>Chapter 7.2.1.1.4:</b> "SF <sub>6</sub> action plan"
Volume of oil leaks	<b>Chapter 7.2.2:</b> "Preserving resources (circular economy) and biodiversity, and preventing pollution" – section on Action against oil pollution of water and ground
CO <sub>2</sub> emissions from electricity losses and SF <sub>6</sub> discharge	<b>Chapter 7.2.1.1.1:</b> "Energy efficiency action plans for electricity losses" <b>Chapter 7.2.1.1.4:</b> "SF <sub>6</sub> action plan" and <b>Chapter 7.2.2:</b> "Preserving resources (circular economy) and biodiversity, and preventing pollution" – section on Circular economy and waste management

- Recycling rate for waste produced by RTE: the percentage of total waste resulting from RTE's activities that has entered a recycling process.
- The "overall waste recycling rate" indicator corresponds more specifically to the portion of waste that has entered a recycling process for the scope of waste produced directly by RTE's activities and waste produced by its contractors.
- Area of land made biodiversity-friendly: measurement of sites made biodiversity-friendly in the areas around network installations.
- "Zero phyto" office sites, new substations and existing substations: the percentage of RTE's office sites, new substations and existing substations managed under a "zero phyto" policy. This is calculated based on the maintenance instructions given to contractors.
- Renewable energy power connected to the HTB high-voltage network: this is the renewable energy connected to RTE's network with power above 12 MW.
- Equivalent outage time: this indicator, defined in minutes, measures the quality of the electricity delivered to customers. The equivalent outage time provides an index reflecting the scale of power outages, considering the undistributed energy as a percentage of the average annual power supply during one year.
- Equivalent outage time caused by weather events: this indicator is used to monitor the percentage of equivalent outage time affecting customers that is attributable to weather conditions. It only reflects the share of outages with consequences for customers that originally results from weather conditions.



- Percentage of environmentally compliant sites: this indicator consists of the number of sites that underwent a finalised ECR (*Évaluation de conformité réglementaire environnementale*) assessment for environmental regulation compliance during the period 2021-2025, as a percentage of the total number of sites to be assessed over the same period.
- Volume of SF<sub>6</sub> leaks: this indicates volumes of leaks of SF<sub>6</sub> based on the volumes added to the facilities during the year.
- Volume of oil leaks: the quantity of oil spilled or lost in the environment from substations and underground links, measured to the nearest 5 litres based on replacement oil. Small leaks (such as leaks from hydraulic controls and circuit-breakers) are not included in this indicator, but they are traced for improvement plans and equipment monitoring.
- Recovery rate for hazardous waste tracking documents: this is calculated on the basis of documents returned between 1 July the previous year and 30 June of the year concerned by the management report. These documents must be returned no later than six months after they are sent by RTE. This time-lag is taken into account in calculation of the indicator.
- CO<sub>2</sub> emissions from electricity losses and SF<sub>6</sub> discharge: this indicator reports the CO<sub>2</sub> equivalent of electricity losses and SF<sub>6</sub> discharge. These equivalent emissions concern part of RTE's scope 1 and scope 2. They are calculated by multiplying the volume of losses by the CO<sub>2</sub> equivalent emission factor per kWh of electricity (average mix) excluding network losses, and multiplying the volume of SF<sub>6</sub> discharge by the CO<sub>2</sub> equivalent emission factor for SF<sub>6</sub>.

### Societal indicators

Customer satisfaction score	<b>Chapter 7.3.4:</b> "Supporting and facilitating change for customers"
Percentage of employees trained in "cyber awareness"	<b>Chapter 7.1.2:</b> "Non-financial risks"
Percentage of employees who have taken the "GDPR" e-learning course on risk prevention	<b>Chapter 6.7.3:</b> "Protection of personal data"
Percentage of employees who have taken the "Sapin 2" e-learning course on risk prevention	<b>Chapter 6.7.3:</b> « Anti-corruption compliance»
Duration/number of breaches of the large-scale incident threshold	<b>Chapter 7.1.2:</b> "Non-financial risks"
Percentage of purchases from SMEs	<b>Chapter 7.3.3:</b> "Stronger regional and local ambitions" – section on RTE's purchases, a contributor to local development

- The customer satisfaction score is calculated annually by an external firm.
- The percentages of employees who have benefited from awareness-raising or training are defined in the social indicators.
- Percentage of employees trained in "cyber awareness": this is the ratio of employees (excluding management executives) who have followed and completed the e-learning module on IT security *CyberSecur: Être acteur de la sécurité du SI* since it was launched, to the workforce in the ITAC user base (excluding temporary staff, contractors, seasonal staff and managed service providers).
- Percentage of employees trained in "GDPR" risk prevention: this is the ratio of the RTE employees (excluding management executives) who have followed and completed the e-learning module *RGPD – Sensibilisation à la protection des données à caractère personnel (DCP) dans le cadre de la nouvelle réglementation RGPD* since it was launched, to the total workforce at 31 December, excluding employees on pre-retirement paid leave.
- Number of breaches of the large-scale incident threshold: this indicator reports serious situations when which the thresholds for large-scale incidents have been exceeded. This indicator monitors the generation plants' response to orders issued by RTE. Breaches of the large-scale incident threshold are among the significant safety events of the highest gravity (type A or B events).
- Percentage of purchases from SMEs: The percentage of total purchases that were made from SMEs. Some expenses that are not covered by a purchase procedure (e.g. donations, duties, taxes) are excluded from this indicator.

### EXTERNAL AUDIT

Mazars has verified the compliance of the Declaration of Non-Financial Performance in the 2021 management report and the sincerity of the information published, in accordance with articles L. 225-102-1 and R. 225-105-2 of the French Commercial Code.

## TABLE OF CONCORDANCE WITH THE DECLARATION OF NON-FINANCIAL PERFORMANCE

Sections of the Declaration of non-Financial Performance	Links to the relevant chapters of the report
Business model	<b>Chapter 2.3:</b> Business model
Analysis and presentation methodology for major non-financial risks	<b>Chapter 6:</b> Risks and the control framework <b>Chapter 6.2:</b> Risk control
Presentation of policies and procedures for major non-financial risks	<b>Chapter 7:</b> Risk control <b>Chapter 7.4:</b> Looking after employees and rewarding talents <b>Chapter 7.2:</b> Fighting climate change, protecting biodiversity and resources <b>Chapter 6.7.4:</b> Vigilance plan
Key performance indicators	<b>Chapter 7:</b> Risk control

**TABLE OF CONCORDANCE WITH THE REQUIRED THEMES STATED IN ARTICLE L. 225-102-1**

Elements of the declaration of non-financial performance	Links to the relevant chapters of the report
Social consequences of the company's activity	<b>Chapter 7:</b> Risks of "Public opposition to transmission facilities", "Safety of employees, contractors and third parties" and "Inability to make the changes set out in the "Impetus & Vision" corporate mission statement by 2025". <b>Chapter 6.7.4:</b> Vigilance plan <b>Chapter 7.4:</b> Looking after employees and rewarding talents
Environmental consequences of the company's activity	<b>Chapter 7:</b> Risk of "Environmental damage: pollution, waste, biodiversity" <b>Chapter 6.7.4:</b> Vigilance plan <b>Chapter 7.2:</b> Fighting climate change, protecting biodiversity and resources
Respect of human rights	<b>Chapter 7:</b> "Legal risk" <b>Chapter 6.7.4:</b> Vigilance plan
Anti-corruption measures	<b>Chapter 7:</b> "Legal risk" <b>Chapter 6.7:</b> Anti-corruption compliance
Anti-tax avoidance measures	<b>Chapter 6.5.2:</b> Action against tax avoidance
The climate change impact of the company's activity and use of the goods and services it produces	<b>Chapter 7:</b> Risk concerning "Ability to adapt the infrastructure, activities and organisation to the consequences of climate change" <b>Chapter 7.2:</b> Action against climate change
Societal commitment to promote the circular economy	<b>Chapter 7:</b> Risk of "Environmental damage: pollution, waste, biodiversity" <b>Chapter 7.2:</b> Preserving resources (circular economy) and biodiversity, and preventing pollution
Collective agreements signed in the company and their impacts on its economic performance and employees' working conditions	<b>Chapter 7:</b> Risk of "Social crisis or lack of internal cohesion entailing significant media consequences" <b>Chapter 7:</b> Promoting social dialogue
Action against discrimination and to promote diversity	<b>Chapter 7.4:</b> Encouraging diversity, equal opportunities and inclusion
Societal commitment to reduce food waste	Theme not relevant to RTE due to the nature of its activities
Measures in favour of people with disabilities	<b>Chapter 7.4:</b> Encouraging diversity, equal opportunities and inclusion
Societal commitment to reduce food insecurity	Theme not relevant to RTE due to the nature of its activities
Societal commitment to promote animal welfare	Theme not relevant to RTE due to the nature of its activities
Societal commitment to promote responsible, fair, sustainable food	Theme not relevant to RTE due to the nature of its activities
Societal commitment to promote sustainable development	<b>Chapter 7:</b> Risk of "Environmental damage: pollution, waste, biodiversity"

**Mazars**

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## **REPORT OF THE INDEPENDENT THIRD-PARTY ON THE VERIFICATION OF THE CONSOLIDATED NON-FINANCIAL PERFORMANCE STATEMENT INCLUDED IN THE MANAGEMENT REPORT**

Year ended December 31, 2021

*This is a free translation into English of the Independent Third-Party's report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.*

### **To the stakeholders,**

In our capacity as an Independent Third Party, member of Mazars Group, statutory auditors of RTE and accredited by COFRAC Inspection under number 3-1058 (scope of accreditation available on [www.cofrac.fr](http://www.cofrac.fr)), we present our report on the consolidated extra-financial performance statement, for the financial year ended December 31, 2021 (hereinafter respectively the «Declaration» and the «Statement»), presented in the management report, in application of the provisions of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the Commercial Code.

### **THE ENTITY'S RESPONSIBILITY**

The Management Board is responsible for preparing the Statement with reference to legal and regulatory requirements, including a presentation of the business model, a description of the principal non-financial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators.

The Statement has been prepared by applying the Company's guidelines (hereinafter the "Guidelines"), the significant elements of which are presented in the Declaration and available upon request from the Company's headquarters.

### **INDEPENDENCE AND QUALITY CONTROL**

Our independence is defined by the requirements of article L. 822-11-3 of the French Commercial Code and the French Code of Ethics (Code de déontologie) of our profession. In addition, we have implemented

a system of quality control including documented policies and procedures regarding compliance with applicable legal and regulatory requirements, the ethical requirements and the professional doctrine of the French National Association of Statutory Auditors.

### **RESPONSIBILITY OF THE INDEPENDENT THIRD PARTY**

Based on our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the requirements of article R. 225-105 of the French Commercial Code;
- the fairness of Information (observed or extrapolated) provided in accordance with article R. 225 105 I, 3° and II of the French Commercial Code, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks (hereinafter the "Information").

This is not our responsibility to express an opinion on the entity's compliance with other applicable legal and regulatory requirements (in particular with regard to the Information required by Article 8 of Regulation (EU) 2020/852 (green taxonomy), the due diligence plan and the fight against corruption and tax evasion); the truthfulness of the Information provided for in Article 8 of Regulation (EU) 2020/852 (EU Taxonomy); the compliance of products and services with applicable regulations.

### **NATURE AND SCOPE OF OUR WORK**

The work described below was performed with reference to the provisions of articles A. 225-1 et

seq. of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors ("CNCC") applicable to such engagements and with ISAE 3000<sup>(1)</sup>: :

- We obtained an understanding of all the consolidated entities' activities and the description of the principal risks associated;
- We assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, when appropriate;
- We verified that the Statement includes each category of social and environmental information set out in article L. 225 102 1 III as well as information regarding compliance with human rights and anti-corruption and tax avoidance legislation;
- We verified that the Statement provides the Information required under article R. 225-105 II of the French Commercial Code, where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the Information required under article L. 225-102-1 III, paragraph 2 of the French Commercial Code;
- We verified that the Statement presents the business model and a description of principal risks associated with the entity's activity all the consolidated entities' activities, including when relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;
- We referred to documentary sources and conducted interviews to:
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented, and;
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix 1. For certain risks (security, major operational incident, major cyber-attack, impulse and vision, major infrastructure event, climate), our work was carried out on the consolidating entity, for the others risks, our work was carried out on the consolidating entity and on a selection of entities<sup>(2)</sup>;
- We verified that the Statement covers the scope of consolidation, i.e., all the consolidated entities in accordance with article L. 233-16 of the French Commercial Code within the limitations set out in the Statement;
- We obtained an understanding of internal control and risk management procedures implemented by the entity and assessed the data collection process to ensure the completeness and fairness of the Information;
- For the key performance indicators and other quantitative outcomes that we considered to be the most important presented in Appendix, we implemented:
  - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
  - tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities<sup>1</sup> and covers between 17 and 100 % of the consolidated data selected for these tests;
- We assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

The procedures performed for a limited assurance engagement are less extensive than those required for a reasonable assurance engagement performed in accordance with the professional doctrine of the French Institute of Statutory Auditors ("CNCC"). A higher level of assurance would have required more extensive verification work.

## MEANS AND RESOURCES

Our work was carried out by a team of 5 people between October 2021 and January 2022 and for 6 weeks.

We conducted about 20 interviews with the people responsible for preparing the Statement, representing in particular the CSR department, the risk department, the human resources department, the health and safety department, the environment department and the purchasing department.

(1) SAE 3000 - Assurance engagements other than audits or reviews of historical financial information.

(2) See appendix 1.

## **CONCLUSION**

Based on the procedures we performed, as described in the «Nature and scope of our work» and the evidence we collected, nothing has come to our attention that causes us to believe that the consolidated non-financial statement is not pre-

sented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

The independent third-party organization,

Paris La Défense, 15 February 2022

### **Mazars SAS**

Mathieu MOUGARD  
Partner

Edwige REY  
CSR and Sustainable Development Partner

## APPENDIX 1: INFORMATION CONSIDERED THE MOST IMPORTANT

### QUANTITATIVE INDICATORS INCLUDING KEY PERFORMANCE INDICATORS

Thematic	Indicators	Entity
Societal	Customer satisfaction rate	Group
	Rate of employees that have benefited from a professionalization action	Group
	Cyber risk awareness rate	Group
	Rate of e-learning training in RGPD prevention	Group
	Sapin II training rate	Group
	Percentage of purchases made from SMEs	Group
	Duration / Number of non-compliances of the IGA criterion (Incident of Great Importance)	Group
Social	Accident frequency rate (employees and contractors)	Group
	Percentage of women in the Management Committee	Group
	Employee pride rate	Group
	Total workforce	SRH Nantes
Environmental	TCE / Climate TCE	Group
	Hectares of landscaped areas favorable to biodiversity	CM Nanterre and CM Toulouse
	Labeled tertiary sites	Group
	Percentage of “zero-phyto” sites	Group
	Percentage of tertiary sector sites labelled “zero-phyto”	Group
	NRE energy power connected to the HTA and HTB network	Group
	SF6 leakage volume	CM Nancy and CM Lyon
	Losses volume	Group
	CO <sub>2</sub> emissions from losses and SF6	Group
	Oil leakage volume	Group
	Waste recovery rate / Waste tracking forms return rate	CM Nancy and CM Lyon
	Sites that have undergone an environmental regulatory compliance assessment	Group





# Glossary

<b>ACER</b>	Agency for the cooperation of energy regulators
<b>ADEME</b> ( <i>Agence de l'environnement et de maîtrise de l'énergie / Agence de la transition écologique</i> )	French agency for the environment and energy control / Agency for the ecological transition
<b>AFNOR</b> ( <i>Association française de normalisation</i> )	The French national organisation for standardisation
<b>ANSSI</b> ( <i>Agence nationale de la sécurité des systèmes d'information</i> )	The ANSSI is France's national authority for information systems security. It proposes rules to apply to protect State information systems and verifies application of the measures adopted
<b>AVERE France</b> ( <i>Association nationale pour le développement de la mobilité électrique</i> )	A French association promoting development of electric mobility
<b>CRE</b> ( <i>Commission de régulation de l'énergie</i> )	France's independent energy market regulator set up by law 2000-108 of 10 February 2000. The CRE's main mission is to oversee the operation of the electricity and gas market and ensure there is no discrimination, cross-subsidy or anticompetitive practice.
<b>EirGrid</b>	The Irish TSO
<b>ENTSO-E</b> ( <i>European Network of Transmission System Operators for Electricity</i> )	European association of 41 TSOs from 34 member countries, formed to promote important aspects of electricity policies such as safety, the rise of renewable energies and the electricity market.
<b>TSO</b>	Transmission System Operator
<b>OIV</b> ( <i>Opérateur d'importance vitale</i> )	Operator of vital importance
<b>ORTEC</b> ( <i>Organisation de RTE en cas de crise</i> )	RTE's crisis management procedure
<b>Electricity losses</b>	Some electricity is lost during transmission between the point of generation and the point of delivery. The volume of the loss depends on the current, the distance and the network characteristics. These are referred to as electricity (or network or line) losses. Although they are invisible, electricity losses are real and unavoidable, but steps can be taken to reduce them.
<b>Multi-year energy plan – PPE</b> ( <i>Programmation pluriannuelle de l'énergie</i> )	France's policy instrument setting out the priorities for action by the public authorities in relation to the energy transition, in accordance with the commitments made in the law on the energy transition for green growth
<b>TURPE</b> ( <i>Tarif d'utilisation des réseaux publics d'électricité</i> )	Tariff for use of the public electricity networks
<b>SDDR</b> ( <i>Schéma décennal de développement du réseau</i> )	RTE's Ten-year network development plan
<b>SF<sub>6</sub></b>	Sulphur hexafluoride, a powerful greenhouse gas with a warming potential that is 23,500 times stronger than CO <sub>2</sub> . This synthetic gas is used in the electricity industry as an insulator, especially in metal-enclosed substations due to its compactness, and in overhead circuit-breakers. SF <sub>6</sub> emissions may be caused by accidental leaks from facilities, the age of facilities, maintenance operations, or decommissioning of equipment at the end of its life.
<b>SNBC</b> ( <i>Stratégie nationale bas carbone</i> )	France's national low-carbon strategy
<b>SRADDET</b> ( <i>Schémas régionaux d'aménagement, de développement durable et d'égalité des territoires</i> )	Regional plans for reorganisation, sustainable development, and regional equality
<b>S3REN</b> ( <i>Schémas régionaux de raccordement au réseau des énergies renouvelables</i> )	Regional renewable energy connection plans
<b>UFE</b> ( <i>Union française de l'électricité</i> )	Association of employers in the French electricity sector

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