

2015 MANAGEMENT REPORT



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LUIS ERNESTO MEJÍA CASTRO
Chairman of the Board of Directors
(As of January 31, 2016)

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LUIS FERNANDO RICO PINZÓN CEO

# MESSAGE FROM MANAGEMENT



San Carlos Hydroelectric Power Plant

## Dear stakeholders:

Sogamoso Hydroelectric Power Plant.

In 2015 we celebrated twenty years of history in serving Colombians, two decades that have marked progress toward smart energy generation as a contribution to the prosperity of society. In 1995, we emerged with the mission of helping strengthen the Colombian energy system, develop the market and consolidate a company oriented toward the wellbeing of all people groups with which we interact. Along the way we increased the installed capacity from 1,436 MW to 3,032 MW by way of an ambitious expansion plan that now places us as the third-biggest generator in Colombia.

Year after year we have provided technical know-how with rigor and integrity, obtaining positive results thanks to the unconditional backing of you, our stakeholders, as well as management practices founded on relations based on trust, value creation, environmental protection, and a contribution to transforming the areas where we operate. In keeping with this proposal, we embrace sustainability initiatives such as the Global Compact and the Millennium Development Goals, now known as the Sustainable Development Goals. Moreover, for the third consecutive year, we took part in the Dow Jones Sustainability Index and ranked among the hundred most sustainable companies in the world, according to the 2016 Sustainability Yearbook by RobecoSAM – the organization tasked with the evaluation of this index – which recognizes best economic, environmental and social

practices of publicly held companies. In addition, in 2015 we were awarded the ANDESCO sustainability prize in the category of Best Large Public Utility Company, with a special mention for Best Environmental Performance.

Below we present the most important achievements of 2015, as well as the challenges ahead for 2016, reflecting our value proposal for stakeholders and society:

#### A year of big challenges and outlooks

In 2015, the weather conditions surpassed the forecasts of international agencies. The El Niño phenomenon reduced the flow of rivers, leading to lower-than-normal water levels in the reservoirs. We generated 12,821 GWh, 13% lower than projected, meeting 19% of Colombia's electricity demand.

With the startup of the Sogamoso Hydroelectric Power Plant (820 MW), we increased our contribution to the National Electric Grid by 3%. Moreover, in the face of the weather situation, the Termocentro Power Plant maintained operational uptime of 88%, which added to the deft management and aimed to assure the continued supply of fuel, allowing for the generation of 15% of our yearly total. Finally, the operational uptime of our power plants was 95%, a figure that is in the high averages for global industry.

In an effort to avoid an energy crisis, the regulator and the government made changes to the market rules to which we quickly adapted, satisfactorily fulfilling our financial and commercial commitments. In addition, we have worked on the development of a renewable energy portfolio comprising hydroelectric, wind, and geothermal generation projects, totaling 7,500 MW. Moreover, we have implemented our Comprehensive Energy Management (CEM) strategy, which aims to increase client productivity, reduce their consumption of energy and water, lower their greenhouse gas emissions, and diversify their energy matrix.

# For Balanced Development and the Transformation of Areas

We support initiatives that promote the use of water as a public resource, which must be protected and duly administered. We are also aware of the connection between climate and availability of the water necessary to preserve biodiversity, community wellbeing, and energy generation. We assume the challenge of taking actions that conserve natural resources, reduce the carbon footprint, prompt reflections among stakeholders, and contribute to the development of public policies, and to mechanisms surrounding this proposal.

We work together with institutions and community organizations through training cycles and the support of production projects to help regions promote their own development. The self-management indicator that measures the communities' learning was 88%, remaining within the high performance ranking. With respect to human rights and the construction of peace, we stress a prevention-based approach through stakeholder training and building partnerships with communities, institutions and organizations from civil society.

# Toward the Construction of Sustainable Relations Based on Ethics and Trust

For us, ethics is a fundamental value, and in 2015 we strengthened our Corporate Ethics System to promote it, assess compliance, and take actions in the event of non-compliance. The business model is also based on corporate governance guided by principles, values, and practices that foster transparency, coherence, and clarity for stakeholders. In 2015, our practices were again rated at 100/100 by the Corporación Transparencia por Colombia (NGO Transparency for Colombia).

We work day in, day out with our stakeholders, going beyond business relations to agree upon commitments and relevant issues based on the dynamics of the environment and sustainability. We have a policy in place for relations and promote spaces for valuable dialog on business planning and the development of management.

#### A Future Full of Opportunities

We back the diversification of the energy and service matrix, focusing efforts on the generation of renewable energy, energy sales and on specialized and added-value technical services through energy-efficient solutions. In 2016, the goals we have set are to consolidate our investment portfolio and our strategies on the issues of comprehensive water and climate change management, as well as to use, in a reliable manner, available generation resources to overcome the consequences of the El Niño climatological phenomenon. We will continue working with the same enthusiasm, commitment and responsibility to ensure ISAGEN remains a company that contributes to a positive transformation of the Colombian electric power industry, its stakeholders and society. We have a future full of opportunities in front of us, and are fully disposed to take advantage of them.

Thank you very much,

Luis Ernesto Mejía Castro Chairman of the Board of Directors

-Am'Ellieja

(As of January 31, 2016)

Luis Fernando Rico Pinzón

# MANAGEMENT IN NUMBERS

	Unit	2014	2015	Variation %
Financial Management <sup>1</sup>				
Return on equity	%	10	9	
Operating Profit	Millions of \$	592,275	937,894	58
Operating margin	%	26	33	-
EBITDA millions	Millions of \$	749,457	1,179,168	57
EBITDA Margin	%	33	42	-
Net Profit	Millions of \$	358,417	297,381	-17
Net Margin	%	16	11	-
Financial leverage	Times	0.93	1,08	
Financial debt / EBITDA	Times	4.49	3,08	
Level of Indebtedness	%	48	52	-
Sales Management				
Revenue <sup>2</sup>	Millions of \$	2,277,246.61	2,844,022.10	24.89%
Customer satisfaction indicator	Points	4.84	4.79	-
Number of wholesale clients	Number of clients	33	30	-9.09%
Non-regulated market share	%	19.5	19	-2.56%
Industrial end clients	Number of clients	276	281	1.81%
<b>Energy Production</b>				
Total generation	GWh	10,609.15	12,820.79	-
Hydroelectric power generation	GWh	8,562.64	10,878.32	-
Thermal power generation	GWh	2,046.51	1,942.47	-
Total uptime	%	94	95	-
Market share in Colombia's National Electric Grid	%	16	19	-
Project Management				
Sogamoso Hydroelectric Power Plant Project progress	%	90	100	11.0
Other Indicators				
Legal Transfers	Millions of \$	39,732	50,185	26
Environmental management plan contributions	Millions of \$	14,247	29,808	109
Social and biophysical investment	Millions of \$	9,747	13,824	42

- Some figures from the 2014 Financial Statements have been reclassified for the purposes of comparison with the 2015 figures.
- Because of a change in the accounting of the Reliability Charge and AGC, the total values of the revenue and expense figures from energy and gas sales in 2014 are not the same as those published in previous reports.

# COMPOSITION OF THE BOARD OF DIRECTORS, 2015

We would like to acknowledge and express our utmost gratitude to the members of Board of Directors in 2015 for their commitment to incorporating sustainability criteria in the Company's strategy and operations.

**Principal** 

María Ximena

Cadena Ordóñez

Carlos Fernando Eraso Calero

Juan Carlos **Esguerra Portocarrero** 

Alternate









Orlando **Cabrales Segovia** 





Luz Helena Sarmiento Villamizar

### Principal

Mejía Castro

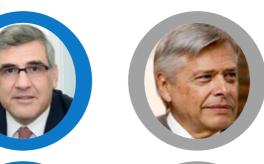
Luis Ernesto



José Fernando **Isaza Delgado** 

Carlos
Cure Cure

#### Alternate



Jorge Humberto **Botero Angulo** 



Tatyana **Aristizábal Londoño** 



Andrés Felipe **Mejía Cardona** 



Juan José **Echavarría Soto** 

# **MANAGEMENT**



Luis Fernando
Rico Pinzón
Chief Executive Officer
Principal Legal
Representative



Diego León
González Ochoa
Chief Production Officer



Luis Fernando Londoño Mejía Chief Commercial Officer Alternate Legal

Representative



Adolfo **Fehrmann Espinosa** 

Generation Projects Manager



Juan Fernando **Vásquez Velásquez** 

Chief Financial Officer Alternate Legal Representative



Liliana María
Zapata Madrid
Chief Administrative Officer
Alternate Legal
Representative



Jose Mauricio
Maya Achicanoy

General Counsel Alternate Legal Representative



Gloria María Úsuga Yepes

Chief Internal Auditor



Margarita Rosa **Giraldo Gallón** 

Corporate Relations Director





REPORT PRESENTATION

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Contact

# **CHARACTERISTICS**

We present our Integrated Management Report, published annually and accounting for:

- Convictions that guide our actions
- O Commitments made with the stakeholder groups with which we interact
- Progress in agreements reached on sustainability initiatives locally, nationally and internationally
- o Compliance with laws and regulations
- Main impacts, practices, results and challenges on the social, environmental and economic fronts

This report is intended for use as a management tool that enables learning, identification of improvement opportunities, and constructive dialog for joint creation of value with the stakeholder groups with which we interact. At the same time, it serves as **Communication on Progress (\$) for the Global Compact**, a United Nations initiative, which reports on our management efforts in fulfillment of the ten principles on human rights, the environment, labor practices and the fight against corruption, following the guidelines of the Advanced Report.

## Methodology

Since 2005 we have been applying the international Global Reporting Initiative (GRI), and the corresponding updates thereto, in preparing sustainability reports. We have taken as a reference the GRI-G4 and the electricity sector supplement, in line with the Essential option, which includes at least one indicator for each material or relevant aspect. We also follow the guidelines of the Integrated Reporting Council (IRC).

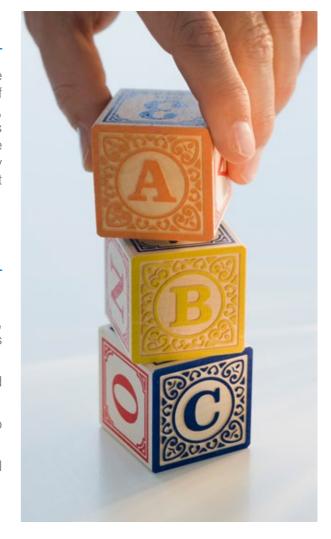
## Scope

The report contains information on business management in 2015 in the areas where we undertake significant operations: our headquarters in Medellín, regional offices, and the areas of influence of electric power plants and proposed projects. We include all related entities in the financial statements, and During the reporting period, some figures from the 2014 Financial Statements and sales results were recalculated for comparative purposes with the 2015 figures, due to the adoption of the International Financial Reporting Standards (IF) and the changes in the recording of the Reliability Charge and the AGC, respectively During the systematization of information, we used measurement techniques and calculation bases that ensure the accuracy of the data reported.

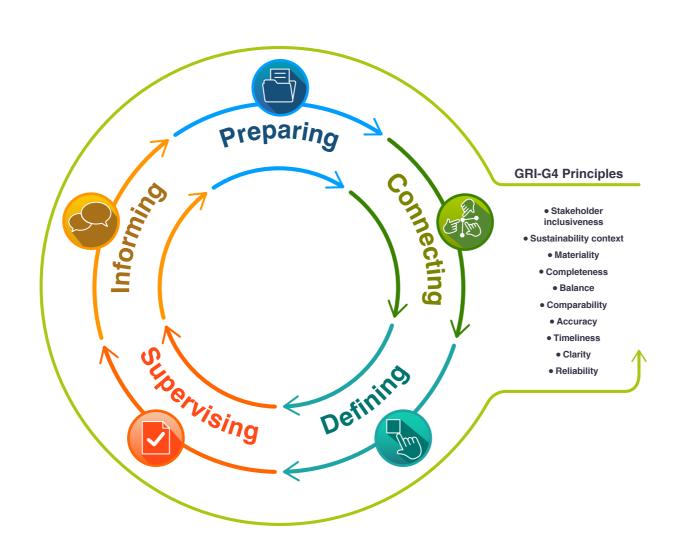
## Structure

The report is made up of four thematic blocks:

- 1. Context: consists of the message from ISAGEN's CEO and Chairman of the Board to stakeholders, the main characteristics of the Company, its strategic approach, philosophy and corporate affairs such as ethics, corporate governance and enterprise risk management.
- **2. Business performance:** shares the results and challenges in power plant construction and operations, energy sales and financial management.
- **3. Management practices:** describes the business activities that are naturally incorporated into management practices through policies, plans and programs.
- **4. Appendices:** presents additional financial information, other environmental indicators, legal documentation, and the relationship between our management and GRI guidelines.



# REPORT CREATION PROCESS





## Preparing

We plan the drafting of the Report alongside the employees assigned to consolidate and systematize data. In this way, we reflect on the process of drafting the report, its contents, and the sources of the data and inputs when reporting management information.

In 2015 we held a training session led by the Colombian Business Council for Sustainable Development (CECODES) on GRI indicators, which contain a high degree of complexity in terms of environmental matters. Moreover, we conducted a program of feedback and meetings, then reached a consensus on an action plan taking into account lessons learned, improvement opportunities and best practices, as well as recommendations from the external assurance exercise carried out by the Colombian Institute of Technical Standards and Certification (ICONTEC) on the 2014 Management Report. The main recommendations are set out below:

#### Result of the external verification process of the 2014 Management Report

Positive aspects	Aspects to improve	Monitoring
	Report planning	<b>⊘</b>
	<ul> <li>Active participation of company areas in the review of GRI indicators.</li> </ul>	<b>⊘</b>
<ul> <li>Structure the management report</li> </ul>	<ul> <li>Share the report with stakeholders.</li> </ul>	<b>⊘</b>
and the exercise in transparency.  • Materiality analysis.	<ul> <li>Critical data review with employees, directors and managers.</li> </ul>	<b>⊘</b>
<ul> <li>Opening up to recommendations.</li> </ul>	ng up to  O Balance when reporting positive information on	<b>⊘</b>
	<ul> <li>Provide comparative data with the sector.</li> </ul>	<b>⊘</b>
	<ul> <li>Verification of the preliminary and designed version.</li> </ul>	<b>⊘</b>

Improvement implemented

Taking into account the recommendation of the external verifier, we have gone into greater depth in systematizing the report preparation process in order to detail and optimize each stage, assure the quality of the contents, and ensure two-way accountability adapted to the expectations of stakeholders. The approach taken to implementing the other recommendations is reported throughout this chapter, in relation to different management report production stages.



## Connecting



We listen to and we considered the perceptions of the 2014 Management Report with respect to its structure, the matters reported, content development and the application of GRI principles. In November 2015, we called upon one person from each group based on their level of representativeness and involvement in joint practices with the company. Of the 22 people invited, we had a dialog with 10 participants belonging to the groups: employees, suppliers, technology partners, organizations from civil society, the knowledge community, government, government bodies and opinion formers. For this exercise we drew on the support of the International Social Responsibility and Sustainability Center (SR Center), which assisted us in defining the methodology and moderating the exercise.

Below we set out the main recommendation regarding the report's contents and the dissemination strategy:

#### Recommendations for the feedback exercise with stakeholders regarding the 2014 Management Report

GRI Principles	Positive aspects	Aspects to strengthen	Monitoring
Materiality or relevant aspects	<ul> <li>Accountability on management of company sustainability and due reflection on environmental topics.</li> </ul>	<ul> <li>Going into more depth on the exercise to select relevant or material topics.</li> </ul>	<b>⊘</b>
materiality of relevant aspects		<ul> <li>Stressing management with communities in the areas of influence in the report's communication sections.</li> </ul>	<b>&gt;</b>
Stakeholder Engagement	Reflecting on the information interests of stakeholders.	<ul> <li>Greater display and visibility of company management.</li> </ul>	<b>©</b>
	<ul> <li>Disseminating information through the website and social networks to strengthen interaction mechanisms.</li> </ul>	Exploring other dissemination channels with communities in the areas of influence	<b>©</b>
		<ul> <li>Presenting the statements of communities to show how the management efforts changed their lives.</li> </ul>	<b>⊘</b>

GRI Principles	Positive aspects	Aspects to strengthen	Monitoring
Sustainability Context	Stressing participation in sustainability initiatives.	<ul> <li>Providing greater clarity on the reasons for adherence to sustainability initiatives.</li> </ul>	<b>Ø</b>
	<ul> <li>Reflecting on environmental and social matters as a central part of company management.</li> </ul>		
Complete or sufficient content	<ul> <li>Complete information on each of the sustainability topics covered.</li> </ul>		
Balance in positive aspects and those to be improved	<ul> <li>Providing evidence of responsible management by showing business impacts.</li> </ul>	• Emphasize the lessons learned by ISAGEN.	<b>Ø</b>
		<ul> <li>Making explicit the work with unions regarding agreements.</li> </ul>	$\bigcirc$
Comparability	Permitting data comparison.	<ul> <li>Facilitating greater comparison of management with the sector.</li> </ul>	•
Accuracy	<ul> <li>The data tables and graphics are accurate.</li> </ul>		
	<ul> <li>The information on social investment and saving natural resources (water and energy) enables assessment of company performance.</li> </ul>		
Punctuality	Facilitating timely decision-making.	<ul> <li>Implementing a management report that is updated online.</li> </ul>	•
	<ul> <li>Complying with legal terms</li> </ul>		
Clarity	<ul> <li>Readily understood and enables learning.</li> </ul>		
Reliability	<ul> <li>Evidencing a rigorous information systematization process (transparent and ethical).</li> </ul>		
	<ul> <li>Publishing data that supports discourse.</li> </ul>		
	<ul> <li>Carrying out verification activities.</li> </ul>		

# <u>Im</u>

## **Defining**

We have defined the structure and content of the report on the basis of relevant or material aspects of management for the company and its stakeholders, which are identified through a materiality assessment. This is a process that forms part of strategic planning by adopting the Global Reporting Initiative (GRI-G4) guidelines. It involves the Planning Group, tasked with steering the company, and the Corporate Responsibility Group, which provides guidelines on relations with interest groups and matters related to sustainability.

In 2014, we performed a detailed and rigorous assessment following an analysis of the environmental variables and relations with stakeholders, among other aspects. In 2015, we validated the material topics in consideration of the results obtained from dialogs with the stakeholders, and the signs identified by the company in an updated analysis of the environment. Moreover, we updated the material topic prioritization matrix, extending it from four to nine quadrants, in order to include the medium impact level. Previously, the matrix only included low and high impact levels.

Accordingly, material topics were defined in line with principles established around stakeholder participation, sustainability, materiality and completeness. The stages of the materiality assessments are shown below:

#### 1. Identification

This stage establishes the preliminary inventory of topics that are relevant for company and stakeholder decision-making. We take as a basis the 14 material topics previously identified and also consider the following inputs:

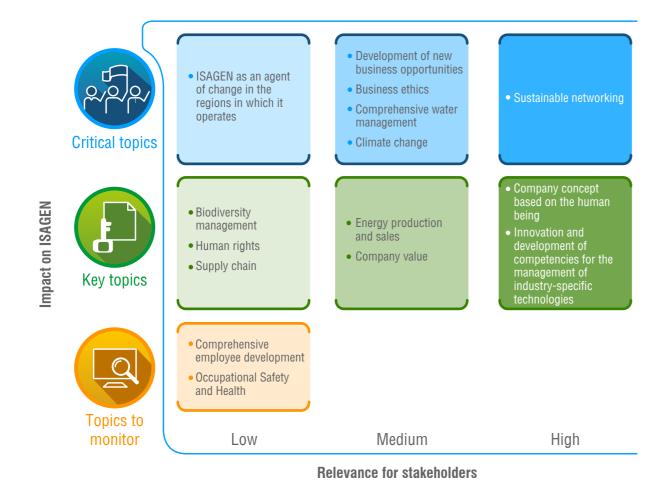
- Energy sector characteristics and challenges.
- Ompany's strategic planning and forecasting with emphasis on analysis of the environment
- >>> Internal analysis of enterprise risks
- >>> External commitments
- Opinions of stakeholders

#### 2. Prioritization

In this phase we define the material topics and that determine the scope information that will be presented in the report. To this end, we performed a qualitative and quantitative evaluation of the topics resulting from the identification phase to identify the priority level of each one, according to their influence on stakeholder assessments and decision-making and on the economic, environmental and social impacts on the company. As a result we obtained 15 topics, and included them in the materiality matrix that compares both variables.

We included climate change as an additional topic, separate from water resources, out of awareness of its impact on the availability of water necessary to run our business and its effects on the environment. We are also aware of its impact on the ecosystems of the areas where we operate, the communities we interact with, and on the economic systems, which could also impact either energy demand or the capacity for payment of the economic sectors we serve. If we do not act appropriately, its medium- and long-term effects could jeopardize the viability of our business.

## MATERIALITY MATRIX



The impact of these issues for ISAGEN is assessed by combining the three aspects of sustainability: economic, social and environmental, as well as placing material topics on three levels, such as:

- **o Topics to monitor:** we must keep on developing to leverage the company results.
- Key topics: we are managing these at present, but they are instrumental in consolidating company results.
- Critical topics: of high impact to long-term company sustainability.

An input for identifying relevant topics for stakeholders were the results from dialogs held with them in 2014, in which stakeholders had the opportunity to express important issues and concerns that we should address. The low level was relevant to one or two stakeholders, the medium level for three, and the high level for four or five. In the assessment, we included stakeholder groups in our value chain, such as clients, investors, employees, communities, and suppliers. It is worth noting that if a topic was considered relevant for one single stakeholder, it was included in the matrix.

#### 3. Review and Validation

In this stage we confirmed the pertinence of the topics identified in previous stages through an exercise that assesses the scope of each one. The Upper Management processes and team took part in this activity, made up of the CEO, the manager for each process, the General Counsel, the Chief Internal Auditor, and the Director of Corporate Relations. The material topics validated are used as the primary guide for the preparation of this report, and its deployment, to a greater or lesser extent, reflects the level of priority. They are correlated to the standard disclosures and GRI-G4 indicators, and it is important to note that four of them do not have a specific indicator. They are:

- O Company concept based on the human being
- Sustainable Relations
- O Development of new business opportunities
- o Innovation and development of competencies for the management of industry-specific technologies

The materials topics and their scopes are presented below:

	Material topic	Scope <sup>3</sup>	External coverage <sup>4</sup>	Internal coverage⁵
0	Company concept based on the human being	<ul> <li>Company projection to society.</li> <li>Company of human beings at the service of other human beings.</li> <li>Corporate Governance</li> </ul>	Communities in Areas of Influence	Χ
0)	Comprehensive employee development	<ul> <li>Opportunities for the human and professional development of employees</li> <li>Balance between work and personal life</li> <li>Recognition of the complete human being</li> </ul>	Employees	Χ
0)	Comprehensive water management	<ul> <li>Comprehensive water management</li> <li>Basin management</li> <li>Water and climate change risks</li> <li>Organization of national water resources</li> </ul>	Clients, investors, suppliers and communities in the areas of influence	Χ

- Scope: range of aspects covered by the report associated with each material topic.
- External coverage: the impacts that can occur outside the organization, and that can make an issue relevant.
- Internal coverage: the impacts that can occur inside the organization that can make an issue relevant but which do not always affect the company as a whole.

	Material topic	Scope <sup>3</sup>	External coverage⁴	Internal coverage <sup>5</sup>
0	Climate change	<ul> <li>Climate change</li> <li>Carbon footprint</li> <li>Climate change risks associated with the value chain</li> </ul>	Clients, investors, suppliers and communities in the areas of influence	Χ
0	Biodiversity management	<ul> <li>Natural resources</li> <li>Protection of flora and fauna</li> <li>Environmental management plans and complementary biodiversity management</li> </ul>	Suppliers and communities in the areas of influence	X
•	Energy production and sales	<ul> <li>Energy market</li> <li>Regulation</li> <li>Supply, demand and price</li> <li>Service quality and reliability</li> <li>Fees</li> <li>Customer service</li> <li>Energy generation</li> <li>Energy Market: <ul> <li>Operation</li> <li>Rules, defense and strengthening</li> <li>Industry regulations</li> </ul> </li> <li>Uptime</li> <li>Sales Management</li> <li>Service quality</li> </ul>	Clients and suppliers	X
•	Innovation and development of competencies for the management of specific technologies	<ul> <li>Innovation</li> <li>Knowledge management</li> <li>Research and development of competencies: water, renewable energies, eco-efficiency and energy efficiency</li> <li>Networks for collaboration</li> <li>Science and technology</li> </ul>	Clients and Investors	X
<b>②</b>	Development of new business opportunities	<ul> <li>Business growth</li> <li>Market opportunities</li> <li>Studies and execution of projects</li> <li>Comprehensive Energy Management</li> </ul>	Clients and Investors	X
<b>②</b>	<b>Business ethics</b>	<ul><li>Ethics and transparency</li><li>Risks of corruption and fraud in the value chain</li></ul>	Investors and suppliers	Χ

	Material topic	Scope <sup>3</sup>	External coverage <sup>4</sup>	Internal coverage <sup>5</sup>
Huma	an rights	<ul> <li>Peace initiatives and human rights</li> <li>Complying with and respecting human rights</li> <li>Peace building and effective conflict resolution</li> <li>Physical safety</li> <li>Regional transformation</li> <li>National level</li> </ul>	Suppliers and communities	X
<b>S</b> usta	ainable relations	<ul> <li>Addressing requirements</li> <li>Dynamics of dialog, collaboration and teamwork</li> <li>Alliances and collaboration</li> <li>Coordination with allies</li> <li>Public policy</li> <li>Academic, social and corporate relations</li> </ul>	Investors, suppliers and communities	X
<b>O</b> Comp	pany value	<ul> <li>Financial strength</li> <li>Corporate financial statements</li> <li>Share trends</li> <li>Sustainability risk management</li> </ul>	Investors	X
transi	EN as an agent of formation in the regions lich it operates	<ul> <li>Social management</li> <li>Institutional strengthening and coordination</li> <li>Legal Transfers</li> <li>Self-training and development</li> <li>Building skills in local workforce</li> <li>Generation of local and regional employment</li> <li>Positive transformation and planning in the territory</li> <li>Sustainable territories</li> <li>Contribution to territorial organization</li> <li>Improving community relations skills</li> </ul>	Communities	X
Occup	pational Safety and Health	<ul><li>Risks in projects under construction</li><li>Labor conditions</li></ul>	Suppliers	Χ
Suppl	ly chain	<ul> <li>Supplier management</li> <li>Storage practices</li> <li>Minimum sustainability requirements</li> <li>Supplier development</li> <li>Risk assessment</li> </ul>	Suppliers and communities	X



## Supervising



We collate and analyze the information to draw up the contents of the report, which encompasses management practices assessed on an ongoing basis by the Chief Internal Auditor's team in compliance with international standards established and certified by the Association of Internal Auditors, thereby attesting to a commitment to improving quality, professionalism and best practice usage. In the content review, we involve employees, directors and managers, as well as stakeholders and an external verifier. In this way we assure the quality of the information reported, as per the GRI-G4 principles. In 2015:

- We carried out a joint review of the report alongside those individuals responsible for supplying information to be reported in order to verify data sources, reliability, traceability, articulation and coherence.
- o The Colombian Global Compact Network carried out an analytic assessment of the 2015 Management Report to assess whether we fully comply with the ten principles related to human rights, labor practices, the environment and combating corruption.
  - See the declaration of the **Colombian Global Compact Network here**.
- We shared the 2015 report with shareholders called to the 2014 Management Report feedback assessment to ascertain their perception of the contents and whether they met their expectations
- We continue with the practice of selecting a third party that, objectively and methodologically, reviews the quality and reliability of the information reported, focusing on the indicators resulting from the materiality assessment and using the GRI-G4 guidelines as a reference. This process includes interviews with managers, directors and professionals

responsible for managing relations with stakeholders and coordinating cross-cutting topics related to sustainability. The Colombian Institute of Technical Standards and Certification (ICONTEC) has been, since 2009, el independent provider of report verification services, and also assists us in auditing our certified management systems: quality, environmental and occupational safety and health.



See the statement of **external verification here**.

## Informing



We published the report on our official digital media and websites on initiatives such as the Global Reporting Initiative and the Global Compact. Moreover, we have other strategies for disseminating information on social networks and information channels established for each stakeholder. adapted to their profile, needs and expectations. We highlight our executive regime, which encompasses key management results and promotes additional learning of information of interest in the report.

Below we present the main results from the dissemination of the 2014 Management Report in our virtual media:

Our virtual version of the 2014 report in Spanish recorded a significant increase in visits compared with the 2013 report (19.16%), increasing from 37,617 to 44,825. This also applies to our virtual version in English, which received 93.36% more views, increasing from 2,003 to 3,873. The report in web language has received more visits than those in PDF. On Facebook we generated 15 publications, 25% more than those generated for the 2013 report, showing greater user interaction. Moreover, we sent out personalized e-newsletters to each stakeholder and held a competition in which there were five winners. The main figures are set out below:

#### 2013 and 2014 Mangement Report Results in Digital Media

Format	2013 Management Report	2014 Management Report	Variation %
HTML page visits – Spanish version	37,617	44,825	19.16
HTML page visits – English version	2003	3,873	93.36
Clicks on the PDF - Spanish version	787	671	-14.74
Clicks on the PDF - English version	44	93	111.36
Thematic week on Facebook publications	12	15	25
Thematic week on Facebook - likes	172	174	1.16
Thematic week on Facebook comments	12	21	75
Thematic week on Facebook - shared publications	1	5	400



# **CONTACT**

Stakeholders can share their comments and raise questions on the Management Report through the different media sources, and they can also send them to the following email address:

### consultas-re@isagen.com.co





ISAGEN AND HUMAN ENERGY

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**Our Company** 

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Relationships of Trust

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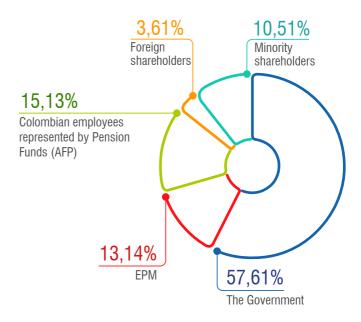
Amaní Reservoir. Miel I Hydroelectric Power Plant.

In 2015 we celebrated 20 years of making clean energy available to the country and at the service of people, out of conviction that companies have the capacity to contribute to the transformation of society, by transcending economic growth, protecting the environment and contributing to the wellbeing of the people groups with which they interact.

# **OUR COMPANY**



#### Shareholder composition at December 31, 2015



We produce and sell energy, and build generation projects. We have seven power plants and an installed capacity of 3,032 MW (2,732 from hydroelectric power plants and 300 from thermal power plants). We are placed as the third-largest generator in Colombia and have helped to meet 19.37% of the country's energy demand.

As of the end of 2015, the majority shareholder was the State, which makes it a Colombian for-profit mixed public utility company (with public and private capital) with a nationwide scope. The shareholder composition is shown in the following graph:

See the 2015 investor relations results here.

Our headquarters is located in Medellín, and we have regional offices in Bogotá, Cali and Barranquilla. Our electric power plants are located in the departments of Antioquia, Caldas, Santander and Tolima, with further proposed renewable energy projects in other parts of the country. We have 686 employees, 2,021 suppliers, 30 wholesale clients, 281 end industrial clients and 26,836 shareholders.

## ISAGEN'S PRESENCE IN COLOMBIA



#### **Power plants**

#### Hydroelectric

- 170 MW
- 2 San Carlos 1,240 MW
- 3 Calderas 26 MW
- 4 Miel I 396 MW
- 5 Río Amoyá-La Esperanza 80 MW
- 6 Sogamoso 820 MW

#### Termoelectric

Termocentro 300 MW



#### **Diversions**

Manso

Guarinó

#### **Projects being studied**

- Hydroelectric projects

  10 Cañafisto 937 MW
- 11 Piedra del Sol 156 MW
- 12 Río Patía 1,650 MW
- 13 Palagua 98 MW



#### Geothermal projects

- 14 Macizo Volcánico del Ruiz 50 MW
- Binacional Tufiño Chiles Cerro Negro (Colombia y Ecuador)



#### Wind projects

- 16 Parque Eólico Guajira I 20 MW
- Parque Eólico Guajira II 376 MW



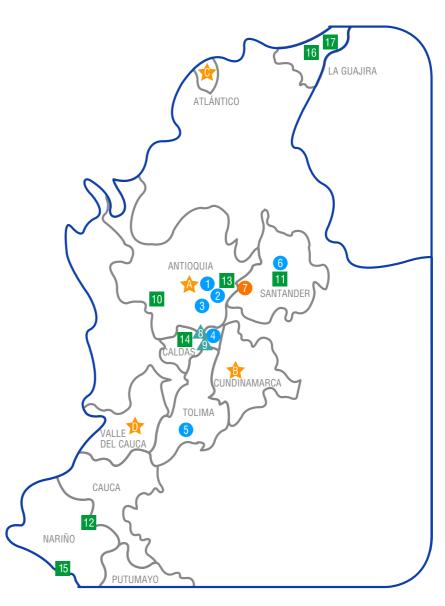
#### Offices

Head office Medellín

Regional office Bogotá

Regional office Barranquilla

Regional office Cali



# **HUMAN ENERGY**

We develop actions, knowledge and technology that seek to mitigate climate change, foster competitiveness, promote sustainable human development and generate shared value for our stakeholders. To make this business proposal a reality, we work on the following fronts:

## HIGHER PURPOSE

By generating intelligent energy, we contribute to society's prosperity.



We generate energy using renewable sources such as water. We are carrying out studies using other alternative sources such as wind and geothermal energy.



We protect water as our main energy generation source and as a source of life and opportunities for all.



We measure our carbon footprint and work to off-set it by using initiatives aligned with the Clean Development Mechanism (CDM), by monitoring alerts, and using resources efficiently.



We promote the efficient use of energy and water, both by our Company and by our customers, through developing programs that transform the corporate culture and processes.

We work and connect with others with the aim of contributing to environmental protection, social development and economic growth.



Our concept of a company is committed to human wellbeing, and we seamlessly incorporate this ethos in our business activities through the policies, plans, programs, and practices that we set out in this report. Our management model incorporates the philosophy, values, corporate purposes and way of working.

Innovation is key to progress along this path, which is why in 2015 we established an Innovation Management System to strengthen this capacity within the company. To facilitate this progress we devised an innovation policy, structured the development stages, proposed some necessary organizational adjustments, and supplemented the portfolio of tools, methodologies and resources that are useful to this end. On the other hand, we began to structure a change and development plan alongside employees, which recognizes the infrastructure and organizational culture as indispensable elements for the development of the innovation process.

Learn more about:





# RELATIONSHIPS OF TRUST

Positive transformations in the environment are boosted when we pool our energy by working together, with constant openness to dialog, learning and the building of relationships based on trust.

We recognize the importance of creating a business culture oriented toward serving people groups that, directly or indirectly, impact or are impacted by our management.

With each stakeholder there is a purpose we relate to and a commitment that guides our actions and forms an integral part of the company strategy.

## At ISAGEN...



We identify the stakeholder groups with which we interact, as well as the issues of relevance to the relationship.



We agree upon commitments and scopes with them.



We create spaces for communication and dialog.



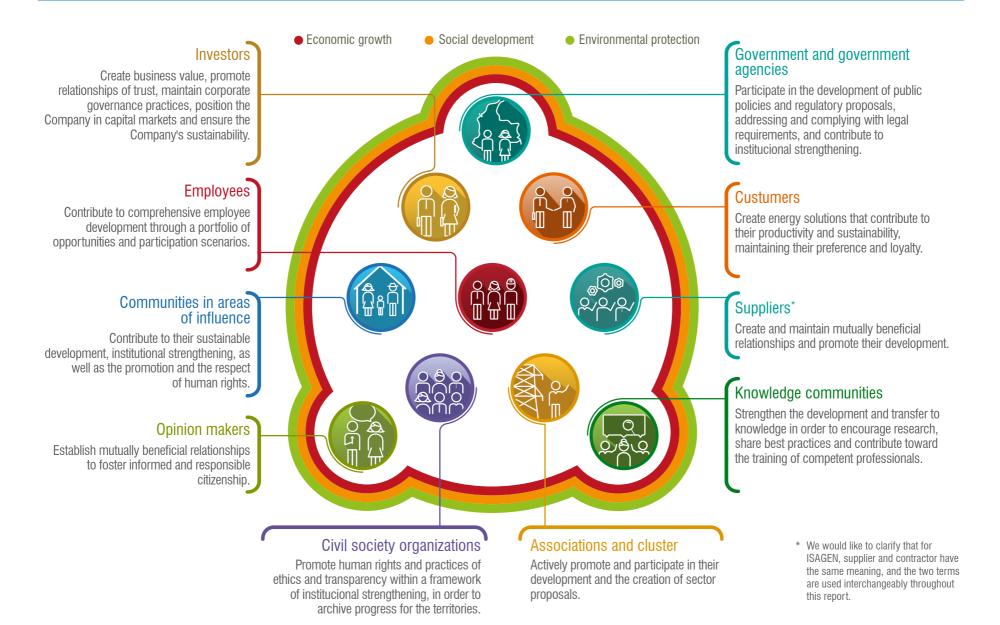
We develop common initiatives for the creation of value.



We measure the impact of the relationship.



## COMMITMENTS WITH STAKEHOLDERS



# ISAGEN IN THE MARKET

Water is our main source of power generation, and in 2015, 84.85% of the energy that we produced was with hydroelectricity. Despite the low rainfall throughout the year, we met our market commitments thanks to the contribution of the Termocentro Power Plant and an efficient power plant and reservoir management.

In addition to the production and supply of electricity and gas, we are aware of our responsibility to contribute to the development of the areas where our power plants and projects are located. Moreover, we carry out a series of technical services adapted to our clients' needs, with the support of partner engineering companies. We also help to improve their energy efficiency, contributing to the productivity of the industry and the conservation of the planet.

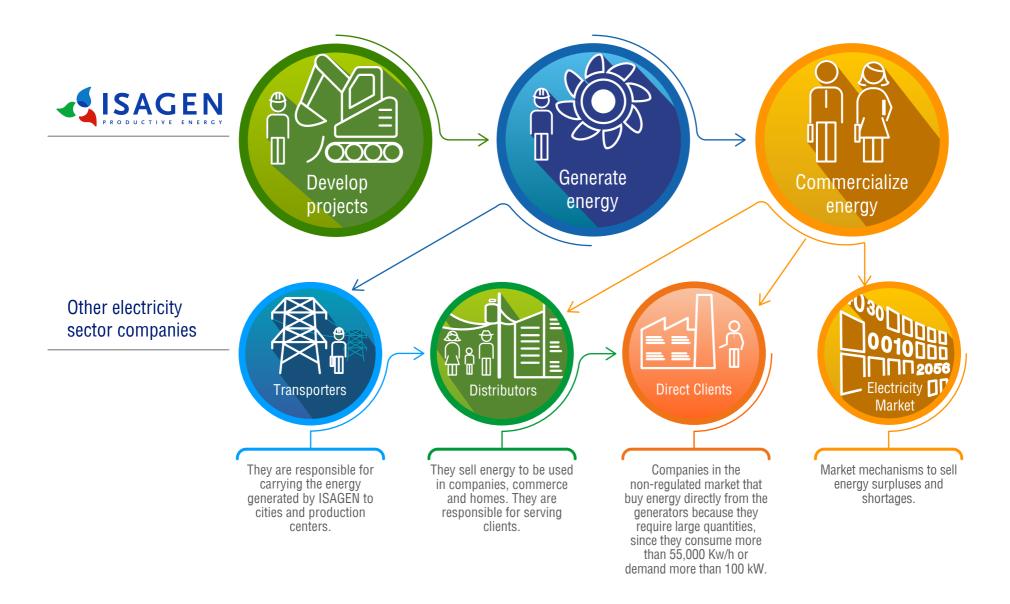
By engaging in electricity generation and sale in Colombia, we are subject and rigorously adhere to the policies and regulations of the entities charged with the regulation and planning thereof. In 2015 we had...



Caldas

influence

Tolima

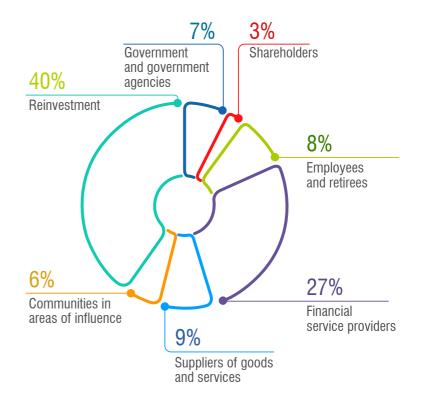


# DISTRIBUTION OF VALUE TO STAKEHOLDERS

The business results make sense when their social and environmental dimensions are analyzed. To attest to the compensation received for our operations, we apply value distribution so that employees benefit from our profits after one year of working for the company. We carried out this exercise based on the methodology of the fourth financial statement, which establishes a nexus between the financial statements and the social and environmental aspects.

This methodology was proposed by Mr. Luis Perera in his book, "Reporte social: un cuarto estado financiero básico, sobre la dimensión social de las empresas". (Social Report: A Fourth Basic Financial Statement on the Social Dimension of Companies).

#### Value distribution at December 31, 2015



## **ENERGY SECTOR SITUATION:**

## RISKS, IMPACTS AND OPPORTUNITIES



Topocoro Reservoir. Sogamoso Hydroelectric Power Plant.

In 2015 the weather conditions exceeded the forecasts of international agencies, resulting in an unexpected impact on the water flows to our electric power plants. The El Niño phenomenon was expected to come to fruition in the first half of the year, while normal conditions were forecasted in the second half. However, the impact differed from what was expected: dry conditions endured at the start of the year, strengthening to become a serious event in the second half of the year. This situation, along with the increase in the fuel price as a result of the strong devaluation of the Colombian peso against the dollar, prompted the Energy and Gas Regulatory Commission (CREG, for the Spanish original) to temporarily intervene in the market by issuing a series of resolutions with rules that aim to encourage



Termocentro Power Plant.

involvement in thermal generation in the country, especially among those generators that use liquid fuel. In our case, the El Niño phenomenon reduced the flow of rivers, leading to lower-than-normal water levels in our reservoirs and below-forecast generation.

The response to this situation stood as evidence of a mature and well-structured electricity sector with market mechanisms that satisfactorily responded to the country's needs.

This energy situation meant a leading role for thermal power plants, which led to high spot market energy prices at the end of the year. The Termocentro Power Plant maintained operational uptime of 88%, which, added to adequate management to ensure continuous fuel supply (natural gas and diesel), allowed this plant to generate 1,942 GWh - 15% of our total generation for the year. It is worth noting that the Termocentro Power Plant

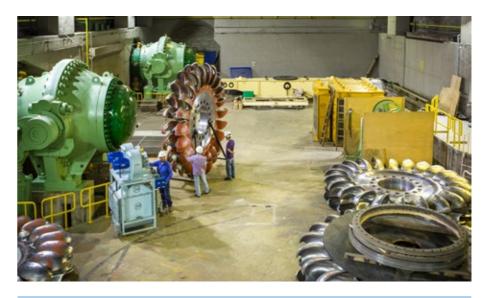
has been in continual operation for the country since 2012, and is now in optimal conditions to function reliably with natural gas and diesel. Moreover, in the first half of 2016, our challenge has been to acquire the fuel required to ensure the plant's generation in a market that has a natural gas deficit.

The operational uptime of our power plants was 95%, a figure that exceeds established levels and falls within the high averages for the industry worldwide. Action to face this situation include:

- Definition of the "inadequate risk strategy on climate change," which takes into account the effects of this phenomenon on water resources used for hydroelectric energy generation.
- Preventive maintenance and modernization to ensure power plant uptime and meet energy commitments with the market. For its part, the start-up of the Sogamoso Hydroelectric Power Plant (820 MW), more

than one year ago and within the period established with the market, has helped alleviate the current energy supply situation.

- The power plants are in optimal conditions thanks to our rigorous compliance with the maintenance, operation and modernization plans applied therein.
- O In order to ensure the reliable use of available generation resources, testing was successfully conducted to ensure the operation of the Termocentro Power Plant with liquid fuel during the energy situation the country is facing as a result of the El Niño phenomenon.
- Strengthening of our sales management and financial decision-making strategy with a view of maintaining normal business development, sustainability and solidity, and thus prevent adverse effects on company value. In this regard, and with a view to fulfilling our commitments with third parties and mitigating exposure to exchange risk, we take financial measures such as the hedging of portfolio investments. "We set up forwards to ensure the fulfillment of commitments with our suppliers during part of 2015 and 2016. In relation to debt repayments, we manage the resources to ensure sufficient liquidity and carry out natural hedging through the purchase of dollars resources that can be used in the case of prepayments and set up forwards under suitable market conditions. In this way, we acquired more than USD 52.6 million and conducted hedging operations worth close to USD 2.1 million, through which we succeeded in reducing to a certain degree the impact of devaluation on our results..
- We support measures by the government and the regulatory body aimed at guaranteeing a supply to the energy demand, as well as water and energy saving campaigns to preserve these utilities.
- Full compliance with Environmental Management Plans and the complementary commitments established in the areas of influence of the company's power plants.



Machine station. San Carlos Hydroelectric Power Plant

Our revenues were better than expected, and despite the fact that the commercial operating costs exceeded the estimate for the reasons indicated above, we managed to attain favorable financial results. However, the sustained pressure of devaluation that characterized 2015 diminished our net income.

Thus, climate change generated an impact on profits and opened up other business outlooks on different fronts, such as diversification of the energy matrix based on a portfolio of renewable energy, exploration of new business opportunities, and Comprehensive Energy Management alongside clients. It also gave some indications of the importance of carefully managing the reliable operation of hydroelectric power plants, and of exploring the possibility of locating them in areas affected by El Niño through increased rainfall. In addition, it stood as an invitation to

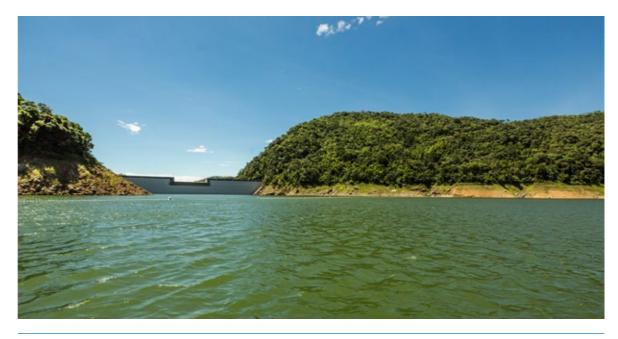
strengthen cooperation among companies and other stakeholders so as to develop strategies to conserve natural resources such as water and work toward the challenges posed by the Energy Trilemma<sup>6</sup>. This study, published by the World Energy Council, focuses on the development of energy that is safe (effective management of the energy supply), equitable (affordable and fair access to energy) and sustainable (generation that does not affect the availability and quality of natural resources). It therefore constitutes the great challenge that all of us engaged in the electricity sector must face.

Moreover, we followed up on the National Energy Plan, established by the Colombian government in 2015, which seeks to promote sustainable development and adaptation to climate change, as well as contribute to economic and political stability through the development of models and technologies that are already widely used in other countries.

Click here to learn more about:







Amaní reservoir. Miel I Hydroelectric Power Plant.

The monitoring of weather conditions, such as El Niño is very important to ISAGEN, and although it is not directly related to climate change, that is to say, it is not a direct result thereof, various scientific papers and studies conducted by the Company show the tie between it and the variability of Colombian meteorology. This situation has effects on the water resources available for out hydroelectric power plant and, therefore, on the long-term projections of the flows used for power generation.

In 2015, our spot market energy purchases increased by 63% compared to the estimated budget for the year, mainly due to the country's weather situation, and this was reflected in our financial results. We would like to highlight the measures taken, in addition to the research projects carried out to understand the behavior of the water resource in view of the weather variability, by mentioning the timely decisions made for the future in order to manage the risk and improve the assertiveness of the hydrological forecasts used in our budget programming. Finally, we invested in a renewable energy portfolio with non-conventional sources of generation, including wind and geothermal energy, which also helps diversify the energy matrix.

<sup>6.</sup> We are a key actor in supporting compliance with the Energy Trilemma, though there are certain restrictions as regards accessibility, in that we do not have energy transmission networks but contribute to attainment of the World Energy Council's objectives of availability and environmental sustainability.



# CONTENTS

**Corporate Ethics System** 

- Internal Actions
- External Actions
- Collective Actions

2016 Challenges



Gloria María **Úsuga**Chief Internal Auditor

"At ISAGEN we assume a genuine commitment to implementing practices that demonstrate that our actions are always founded on our fundamental value: ethics. To this end, we have strengthened our Corporate Ethics System, whose premise is the participation of stakeholders, preventing, detecting and correcting the behavior that goes against the ethical framework on which the company has been based since its inception".



## 2015 MILESTONE

We strengthened our Corporate Ethics System, which includes policies, guidelines and instruments that enable its promotion, assessment of compliance and action taking. We signed an agreement with companies in the sector to strengthen practices of transparency and ethics that promote healthy competition, trust and sustainability. Employees reviewed and updated the Ethics Statement. We addressed 34 concerns on the Ethics Hotline, a mechanism at the service of stakeholders to report inappropriate acts committed by employees. Our practices were again rated at 100/100 by the Corporación Transparencia por Colombia (NGO Transparency for Colombia) in its corporate transparency assessment. The Transparency and Citizen Participation Network selected our Corporate Ethics System as the winner in its Good Practices in Transparency and Legality contest. For the third year running, the Colombian Securities Exchange awarded us with the IR Recognition as one of the most outstanding companies in the country for our management practices in disclosing information and investor relations.

Ethical behavior is a fundamental of the company's business philosophy, development and growth. We understand that it is just as important to yield profits and grow as it is to perform consistently in terms of the principles that promote transparency and competitiveness.

In this chapter we present the most significant results from 2015 in the management of business ethics:

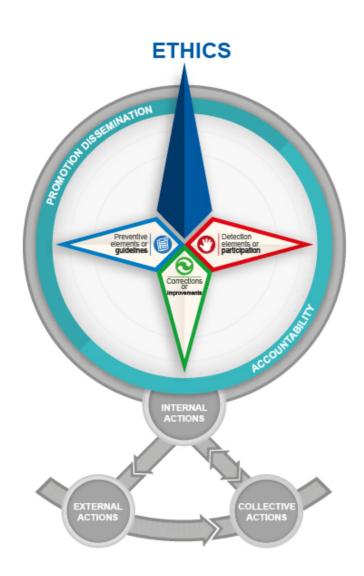


# CORPORATE ETHICS SYSTEM

Given that ethics is our fundamental value, we strengthened our Corporate Ethics System – a set of policies, guidelines and instruments that permit its promotion, assessment of compliance and actions to be taken in the event of non-compliance.

In 2015 we reviewed, updated, and complemented the System, which was represented in a model that draws together internal actions for the management of ethics and the mechanisms that enable transcendence of the organizational sphere. As to external actions, we start off by sharing with stakeholders in order to encourage this value and use dialog to agree upon collective actions, which are represented in initiatives oriented toward the protection of ethics and transparent relations.

# MODEL FOR THE CORPORATE ETHICS SYSTEM



This model is represented through a combination of a compass, which guides the company's actions toward ethics, as well as a sextant, which shows the transcendence of our internal practices to reach stages of external and collective action with stakeholders.

Learn more about our Corporate Ethics System here.

Below we present the results of the Model for the Corporate Ethics System:

## **Internal Actions**

This consists of policies, practices, provisions, statements, determination of responsibilities, mechanisms and measures established to manage and protect ethics.

### **Preventive Elements or Guidelines:**

Involves all guidelines assumed within the company, based on the tenets of preserving ethics, protecting transparency and combating corruption.

#### O Ethics Statement (DCE):

The Ethics Statement (DCE) is a preventive instrument in the Corporate Ethics System, which is constituted as a tool for moral guidance that facilitates taking actions as part of labor, personal and institutional relations, and seeks to reaffirm trust, transparency, responsibility and justice.

In 2015, we completed the review and update of the Ethics Statement and are continuing with promotional activities:

#### • Update of the Ethics Statement (DCE, for the Spanish original)

As with the first 2006 version, on this occasion all employees were invited to participate in the Ethics Statement review, for which workshops were held at the different company sites and published on the company intranet, for those who took part in the face-to-face sessions to comment on. It is worth noting that this update was led by the group of employees that comprise the Ethics Statement Promotion Group, and was supported by the company.

In this process, 174 employees participated voluntarily, of which 33 were managers.

This process resulted in a clearer and more concise Ethics Statement, going from 60 to 32 constituent statements:

- None of the behaviors covered by the previous version were eliminated.
- Redundancies and behaviors already included in corporate policies and guides were eliminated.
- Behaviors related to the following were included:
  - Open conversations that invite reflection
  - Active, prudent and constructive actions on other stages.
  - Respect for human rights.
  - Commitment to sustainable human development.

It should be stressed that the company's Board of Directors decided to adopt the Ethics Statement as our Code of Ethics.

#### Promotion of the Ethics Statement (DCE)

During the year we continued holding roundtables on everyday topics to reflect on them from the perspective of participative ethics, with a total of 182 participants:

- Roundtable "The Charlie Hebdo case": 69 employees.
- Roundtable "Is there bullying in the corporate arena?": 51 people.
- Roundtable "Terrorist fringes": 10 employees.
- Roundtable "Ethics in the sphere of business": 53 suppliers.

For 2016, we plan to reinforce actions that promote the new Ethics Statement with the different stakeholders and to extend the participation of electric power plant employees in roundtables.

#### Other guidelines

Organizational instructions that guide the actions of Board members, managers and employees, such as Corporate Governance practices, policies, programs and regulations, among others.

#### O Fraud Risk Management Program:

We implement best practices on fraud risk with a focus on continuous improvement, based on the company's conviction to define ethics as a fundamental value. In 2015 we performed diagnostics on the program to help us identify the gaps in its development in the short- and mediumterm. We took the following actions to close the gaps identified:

- We reviewed the guidelines that steer our internal actions on the course of investigations related to non-compliance in terms of ethics, fraud and corruption, allowing us to make improvements thereto.
- We updated the risk matrices for 100% of the work issues, including identification of different forms of fraud such as corruption, money laundering, etc. The risk of fraud is classed as one of the corporate risks. Therefore, in case of situations that have an influence on this, the Management and Risk Committee conducts periodic monitoring. The assessment of this risk involves the five company processes and the three General Management teams.
- We developed a methodology to identify the critical positions in the Company that are most sensitive to the risk of fraud.
- We adjusted the Fraud Risk Policy with the approval of the Board of Directors, which enabled unification of the Company's position and guidelines in relation to the risk of fraud and corruption, dissemination of the local and international benchmarks we take into account to manage these risks, and extension of their scope to Board members and stakeholders. Moreover, this policy determines the framework for action in response to unethical situations, based on principles of diligence in actions and responses, legality, the presumption of innocence, confidentiality and non-payment of rewards, gifts or benefits. To ensure consistency with our corporate criteria, our policy included non-tolerance in relation to:

- Contributions, provision of our facilities, properties, services and resources to political parties, candidates or representatives, or sponsorship of political advocacy in exchange for benefits that favor operational or commercial transactions; in 2015, we did not make any contributions to political parties.
- Commercial practices or agreements that go against free competition and transparent market development, as well as behavior that goes against Colombia's competition laws.

Moreover, Colombian legislation has laid the groundwork for free competition policy, and the Energy and Gas Regulatory Commission (CREG, for the Spanish original) has the role of regulating monopolies in providers of public utilities when the market has not achieved this through competition.

Likewise, Law 142 / 1994 establishes that the CREG must indicate when there is sufficient competition to allow the freedom to set prices and prevent deals that lead to unfair agreements being adopted by public utility companies. In 2015, we were not subject to any sanctions related to non-compliance with legislation in general or in relation to fair competition and antitrust.

Learn more about:

- **Solution** Corporate Governance Code
- >>> Fraud risk Policy

### Statutory Guidelines

Consists of the legal or regulatory guidelines related to transparency and combating corruption that we must comply with. We are strict and rigorous in our compliance of the regulations, which applies to us in relation to these matters, and to this end we have implemented the following measures:

- We have an Audit and Risk Management System for Anti-Money Laundering and Combating the Financing of Terrorism in place, made up of guidelines, codes, rules, activities and responsibilities, adopted to prevent any use of the Company as a vehicle for committing such offenses.
- We define and execute the anti-corruption program in compliance with Law 1474 / 2012, which was made available to stakeholders on the website.

- We promote transparency as an explicit commitment in our management model. and, in adherence with Law 1712 / 2014 and our internal company policies on corporate governance, we make information available that, in addition to complying with this law, considers the information on an additional and voluntary basis. The purpose of Law 1712 / 2014 is to regulate the right of access to public information, procedures for the application and enforcement of that right, and exceptions to the publication of information. This also applies to ISAGEN with respect to the information directly related to the provision of the public utilities we offer.
- We comply in full with applicable legislation on intellectual property and copyright, pursuant to the provisions of Law 222 / 1995, amended by Law 603 / 2000. This is related to the use of different works and symbols that are entitled to legal protection.

Learn more about:

- The Internal Audit and Risk Management Manual for Anti-Money Laundering and Risk Management.
- 2015 Anti-Corruption Plan.



## **Detection or Participation Elements**

The mechanisms that allow stakeholders to make known the situations or events that may or do affect the ethical climate in our company or relations with them, with employees also endorsing their commitment to ethical business practices. Below we refer to:

O The Ethics Hotline: employees and the general public can report events or irregularities committed by ISAGEN employees or third parties, that affect or may effect the interests of the Company or its stakeholders. This can be done through different channels that comply with the principles of confidentiality.

In 2015 we performed a diagnostic of the functioning of our Ethics Hotline, operated by a specialized third party, and as a result we reviewed the protocols for receiving and sending information and responses, call receipt scripts and operator training, among other aspects, as well as defining and executing improvement actions.

Overall, we analyzed and addressed 34 concerns through our ethics channel: three related to allegations of workplace harassment; six to issues such as complaints by stakeholders; and 25 to apparent situations that go against our Ethics Statement

The Ethics Committee found that two of these concerns corresponded to actions by employees that are contrary to our Ethics Statement, in response to which we took the pertinent administrative measures. Of the total number of concerns, 27 have been closed, while the rest are under review. We are also pleased to note that we received no complaints through the Ethics Hotline that demonstrated the Company to be in violation of the human rights of any stakeholders.

 Conflicts of Interest Mailbox: Tool that allows employees to report in a timely manner to their line manager on potential conflicts of interest.

A total of 103 employees reported on possible conflicts of interest, which, overall, were responded to in a timely manner and channeled by the corresponding line managers. The express declarations that constituted a potential conflict of interest were dealt with by withdrawing the employee concerned from the activity that gave rise to the conflict, or by asking them to refrain from participating in the activity.

o Ethics Statement Support Group (DCE): made up of employees voted in and company representatives, who seek to promote reflection, review and dialog based on ethical participation. The following were this group's main actions for 2015:

- Three roundtables on situations that create ethical dilemmas and the
  possibility of their occurring in the organization. These were facilitated
  by an external expert, and the outcomes were published on the
  Company Intranet.
- A roundtable with 53 representatives of our suppliers to address relations between them and ISAGEN employees, as well as the chapter that deals with these matters in the Ethics Statement.
- O Annual Transparency Survey: 99.10% of our employees carried out the annual self-assessment on transparency practices. Its results that showed their knowledge and commitment on topics such as corporate ethics, handling conflicts of interest, prevention of money laundering, purchase and sale of the Company's securities, and guidelines on fraud risk. The remaining percentage corresponds to employees that, on the date on which the survey was carried out, were on leave or incapacitated. Employees also carried out the annual confirmation of their commitment to these matters throughout 2015. As part of the Fraud Risk Management Program, we assessed and took improvement actions related to the questions in this survey. Moreover, 100% of our managers responded to a survey aimed at assessing their role and understanding their responsibilities in regards to transparency practices and the risk of fraud and corruption.
- O Assessment of Fraud Risk: we assessed the risk of fraud as part of the 2015 Audit Plan, and there was no evidence of cases in which fraud or corruption materialized, but improvement opportunities were detected related to reducing this possibility. We also applied a methodology for assessing suppliers, which included pilot tests in two companies; this consisted of a review of the mechanisms possessed by these companies to comply with minimum sustainability requirements, which include ethics as one of its fundamental elements.

## Elementos correctivos o de mejora

These are elements that help us to define and implement improvement actions related to managing the Corporate Ethics System. They consist of:

- O Ethics Committee: the recipient of all cases that come through the Ethics Hotline, made up of three Company managers and one independent member elected by the Board of Directors, who advise and guide the organization on situations of non-compliance regarding the Ethics Statement. Under the instruction of the Ethics Committee, in 2015 we conducted all pertinent investigations on matters related to possible Ethics Statement transgressions.
- O Audit and Risk Committee: each semester we present a report on management of the Corporate Ethics System, which includes the monitoring carried out by the Ethics Committee. This Committee reviewed and monitored the Fraud Risk Management Program and the Audit and Risk Management System for Anti-Money Laundering and Combating the Financing of Terrorism, as well as validating compliance with the practices stipulated in the Corporate Governance Code.
- O Assessment by Third-Parties: out of awareness of the need to permanently improve the elements of the Corporate Ethics System, we regularly submit our ethics and transparency practices to a third-party assessment. The following results in this regard are notable:
  - For the second year running we received a score of 100/100 among the 32 public utility companies evaluated by Corporación Transparencia por Colombia, achieving the highest standards in transparency policies and mechanisms. For the eight measurements that have been carried out, our Company has attained the highest rating among participating companies.

- We were recognized by the Universidad de Antioquia as a Company that applies best practices in the areas of administration, control and transparency, based on an analysis of control system functioning and its comparability with international models.
- We maintain an adequate Internal Control System, according to the Comptroller General's Office of the Republic, the Statutory Audit and External Management Auditors.

### **Promotion and Internal Dissemination**

- We continued the launch of the internal campaign called "don't defraud yourself" through corporate communication pieces, reaching 100% of employees from different sites and power plants, distributed at different levels of the Company, who were also informed of the organization's different policies and procedures on combating corruption.
- We reminded employees about the guidelines concerning offering and/ or receiving gifts and invitations.
- We raised awareness on the policies and procedures for combating corruption among 100% of the members of the governing body.
- O A total of 480 employees (70%) completed Module 3 of the virtual course on human rights, which covers the Corporate Ethics system, and its main elements and mechanisms focused on combating corruption.
- We trained 52 managers (50.48%) on their responsibilities and roles regarding the Corporate Ethics System and the tax audit function. Moreover, four members of the governing body were trained on this system, the Fraud Risk Program and the mechanisms established to manage it.
- We informed new employees of their responsibilities regarding the main elements of the Corporate Ethics System through induction processes.

## **Accountability**

Commitment to an ethical and transparent management is important for the organization, but also for the stakeholders. Therefore, we publicize compliance with the commitments undertaken with them regarding matters of ethics, whereby the Management Report stands as the primary mechanism for accountability. An additional element in this assessment is the Annual Report on Corporate Governance Practices, in which practices related to ethics and transparency, among others, are validated.



See the Annual Report on Corporate Governance Practices here.

## **External Actions**

The actions we take to publicize and promote our ethics practices among stakeholders, through which we seek to create spaces for dialog on the matter and advance in our relationship.

- We produce publications for all groups in which we regard ethics as a tool for organizational coherence, and we provide information on how to structure a corporate ethics system.
- O A total of 117 Company stakeholders, including assigned employees, contractors and interns, completed the module that covers the Corporate Ethics System as part of the virtual course on human rights.
- We send notices to our stakeholders regarding International Anti-Corruption Day and our support of this initiative.
- We remind our suppliers about the guidelines concerning offering and/ or receiving gifts and invitations.

- We constantly promote ISAGEN's ethics channel in each medium available to all stakeholders.
- All stakeholders can find all the information available on our website related to our Corporate Ethics System and the corporate governance practices.
- Learn more about relations with stakeholders here.

## **Collective Actions**

We aim to implement effective systems for the promotion of ethics, transparency, and combating corruption in a way that involves stakeholders, promoting collective actions that help to shield the social climate from corrupt practices. Therefore, in 2015 we worked on the following collective actions:

- For the second year, we took part in the Transparency and Citizen Participation Network led by the Medellín Comptroller, and in 2015 we participated in the Good Practices in Transparency and Legality Contest promoted as part of this initiative. We ended up being selected as winners thanks to the presentation of our Corporate Ethics System, which constitutes a benchmark whereby other companies belonging to the network can voluntarily adopt some elements of it.
- We participated in the Sixth Round of Good Corporate Transparency Practices, promoted by the Corporación Transparencia por Colombia (NGO Transparency for Colombia), in which we shared best practices on transparency with twelve other companies. We highlight the Ethics Committee of the Technology Partner Network as overseer of good practices among them.

- We continued with our participation in the Auditors Network, made up of important companies in the Colombian energy network with an interest in fostering the integrity of its members; incorporating best practices; and contributing to value creation, which includes the topics of ethics and transparency.
  - This year, the 5th Congress on Effective Auditing in the Energy Sector was held, whose slogan was "Negotiating, a dialog in pursuit of agreements and common solutions."
- We participated in the initiative led by the Colombia Global Compact Network known as "By Companies for Companies," in which constituent organizations train SMEs in the supply chain on tools and practices to determine and implement their corruption risk management systems.
- The third edition of the electricity sector Ethics Forum was held in 2015, allowing the construction and signing of a collective agreement with the main companies, which commits us to strengthen the practices of transparency, ethics, the free market, and competition.

This corporate action is overseen and supported by Transparencia por Colombia, the United Nations, and the Secretary of Transparency of the Presidency of the Republic.

Learn more about collective action in regards to electricity sector Companies,
Transparencia por Colombia and the Transparency and Citizen Participation Network here.



# 2016 CHALLENGES

- O Continue to work on raising the knowledge and appropriation of transparency practices among stakeholders, clients, and suppliers.
- O Define the guidelines within the framework of the Collective Action agreement for companies from the electricity sector, focused on the protection of fair competition and antitrust and relations with public servants.



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Board of Directors: practices and results

Fair Treatment of Shareholders

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Corporate Governance Practices Evaluation

2016 Challenge



José Mauricio **Maya** General Counsel

"Being at the forefront of corporate governance practices has allowed us to sustain trust, transparency and respect for the rights of shareholders, investors and other stakeholders, to whom we make available clear, reliable, and timely information about our management".



# **2015 MILESTONES**

- We implemented in our corporate governance practices the recommendations made by the Colombian Code for Best Business Practices.
- ISAGEN's employees and its Board of Directors complied with the Corporate Governance practices, and we also carried out activities to improve them.
- The average rating of the Board of Directors' management was 4.8 out of 5.0 representing a high performance.
- The Board of Directors approved the Fraud and Corruption Risk Management Policy, unifying in a single document the Company's position and guidelines, citing international and local benchmarks.

Our business model is also founded on corporate governance criteria guided by principles, values and practices that promote transparency, consistency and clarity regarding fundamental issues such as the governance structure, handling and disclosure of information on management for making relevant decisions, fair and respectful treatment of shareholders and investors, solutions to conflicts of interest and control mechanisms. The Corporate Governance Code is our framework for action.

In addition, we take into account initiatives such as the Financial Superintendence of Colombia's Código País, which draws together the best corporate practices for issuers of Colombian securities. The measures recommended are adopted on a voluntary basis and reported annually through completion of a survey on best corporate practices.

In this chapter we presen our main good governance and the 2015 results.



Throughout the year we started to implement the recommendations of Código País, and to this end, we implemented an action plan that began with a "Diagnostic of the level of compliance," which found that most recommendations had already been adopted by ISAGEN and that only 60 remained to be implemented by the Company - measures related especially to the functions of the Board of Directors, the General Meeting of Shareholders, Derecho y trato equitativo de los Accionistas, and information disclosure.

Subsequently, we constructed an action plan and a schedule, which, after it was approved by the Board of directors, served to initiate implementation of the measures. In this way, we transformed and prepared documents on the Company's Corporate Governance, such as: the Bylaw of the Audit Committee, policies on enterprise risk management, information disclosure, relations with related parties, upper management succession, the Corporate Governance Code, the Rules of Procedure for the Board of Directors and other proposed amendments that require the approval of the General Meeting of Shareholders. As a complement to this undertaking, it was necessary to await completion of the process of selling the Nation's shares in ISAGEN before completing the implementation of the remaining measures in 2016. This code also responds to the guidelines of the Organization for Economic Co-operation and Development (OECD).

Learn more about:



ISAGEN's corporate governance practices



## GOVERNANCE STRUCTURE



2015 Ordinary General Meeting of Shareholders.

General Meeting of Shareholders: the highest management body, whose function is to direct and decide on the Company's most significant issues. Pursuant to the Law, the General Meeting of Shareholders meets annually. In 2015, the meeting was held on March 25, with a total of 666 participants, representing 90.17% of the quorum – sufficient to deliberate and make decisions.

During the Meeting, broadcast live through our website, several of our shareholders expressed their concerns in speech and in writing. The main concern was the sale of the nation's shares in ISAGEN. In this regard, we proceeded to give written responses on the website to each of the 17 concerns; this methodology was announced in the Meeting.

See the response given to each of the concerns here.

**Board of Directors:** the highest administrative body, appointed by shareholders via the General Meeting. Their purpose is to manage the Company's business, as per the guidelines determined along with the shareholders. In 2015, all management of the Board of Directors was conducted in accordance with the regulations established in the Bylaws, the Corporate Governance Code and the Rules of Procedure for the Board.

# BOARD OF DIRECTORS: PRACTICES AND 2015 RESULTS

## Appointment and Skills

Gender, religious affiliation, sexual orientation and ethnic origin are not considered. Candidates for Board membership must possess high ethical and moral competencies as well as analytical, management and leadership skills. They must conform to the profile of the Corporate Governance Code and the rules of Procedure for the Board of Directors.

In 2015, we made progress in preparing the matrix of skills to determine the general characteristics required of Board members, which will allow the Management and Corporate Governance Committee to update biennially the profiles required for membership of this administrative body, depending on current circumstances and needs of the Company.

#### **Composition**

- o 7 principal and 7 alternate members.
- Members reflect the share in the company's property and represent the minority shareholders.
- No executive or employee from the Company may serve on the Board of Directors.
- A seat on the Board of Directors, made up of a principal and an alternate member, is proposed by minority shareholders.
- o Its members were elected at the Ordinary General Meeting of Shareholders held in 2015.
- Terms last two years (April 2015 to March 2017).

## Member characteristics as of December 31

- o 43% between 30 and 50 years of age, and 57% over 50.
- 28% women and 72% men.
- o On average, members have served on the Board for 4.3 years.
- No member of the Board belongs to an ethnic minority or any other kind of minority group, which is not due to discriminatory criteria.
- Three members have senior government roles.
- No ISAGEN executives are members of the Board of Directors.
- They are elected by the General Meeting of Shareholders taking into account the proportional representation of shareholders and following the electoral quotient system established by law.

#### o 71.42%, which exceeds the 25% minimum established for issuers pursuant to the Colombian **Independent Members** Securities Market Law. • The Chairman and Vice-Chairman are independent members. • Approving the higher purpose and the strategic management. • Complying with and enforcing the Company bylaws and promoting the pertinent reforms. Approving the Ethics Statement. Addressing ethical and transparent practices and participate in the identification of impacts and **Functions and** opportunities in economic, social and environmental terms. Responsibilities • The Board of Directors duly fulfilled its functions and responsibilities. • Dealing with aspects related to management with stakeholders. Due diligence: The Board of Directors, through its audit and Risk Committee, approves and monitors the Company's enterprise risks. • Made up of Board Members with the training and experience to carry out the objectives. • They reviewed the issues in greater detail and made recommendations to the Board of Directors. **Board Committees** They complied with all of their functions. See the Rules of Procedure for the Board of Directors here. Establishing guidelines and monitoring economic, environmental and social impacts, taking into account relationships with stakeholders, and recommendations regarding the following matters: · New generation and non-conventional renewable energy projects • Progress plans for generation projects Impact and monitoring of the start-up of the Sogamoso Hydroelectric Power Plant · Código País adoption **Matters Covered** Succession of main executives and Training · Sale of the Nation's shares **Training Sessions:** • To strengthen knowledge, an extraordinary meeting was held in which members received training on issues relating to the energy sector, covering the situation regarding natural gas, the Colombian energy market, market procurement risks and ISAGEN's methodology in establishing energy prices.

Percentage of shares held by Board members as at December 31	<ul><li>0.000064965% of total company shares.</li><li>One member is a shareholder.</li></ul>
Remuneration	<ul> <li>Remuneration for attending each meeting of the Board and its committees is set by the General Meeting of Shareholders. On March 27, 2012, it was decided to establish the amount of 4.5 official minimum monthly salaries in force as remuneration. The opinions of shareholders were taken into account in making this decision.</li> <li>The total amount paid to members of the Board for attendance was \$846,156,575.</li> <li>We initiated the Board of Directors' Remuneration and Succession Policy project, which sets the guidelines and criteria on remuneration. We relied on an external consultant, and benchmarked corporate government practices in the Colombian market.</li> <li>Learn more about the criteria for appointing Board members, required experience and skills, and committee composition here.</li> </ul>
Meeting attendance	<ul> <li>13 meetings</li> <li>92.3% per seat on the board</li> <li>84.6% by primary members</li> <li>91.2% by alternate members</li> </ul>
Enterprise Risks	The Board of Directors, the Audit and Risk Committee and the Management Team:  Approved the guidelines related to Risk Management.  Identifying, managing and monitoring the impacts of risks monthly.  Find out more about enterprise risk matrix here
Addressing Sustainability Requirements	<ul> <li>Shareholders, grouped by percentages of 5% or more of subscribed shares, can formulate proposals to the Board of Directors; the Board, as a higher body, must give them due process.</li> <li>A group of shareholders that represents at least 10% of the shares can call an Extraordinary General Meeting.</li> <li>To facilitate interaction between the governing body and its investors, we have a service office to channel requirements and needs, as well as supply information requested by shareholders as per the provisions of the Corporate Governance Code and the law. In 2015 one shareholder request was presented to the Board of Directors, and was duly addressed and responded to.</li> </ul>

	<ul> <li>For other stakeholders, there are communication channels to make recommendations and express concerns on the corporate management that impacts sustainability; these are analyzed and, depending on their scope, the corresponding internal inquiries are made. The results arising out of this interaction are presented to the Board of Directors for their consideration as part of the decision-making process.</li> </ul>
Board of Directors Assessment	<ul> <li>Carried out with reference to standards that aim to improve performance and effectiveness. The methodology approved by the Board consists of: <ol> <li>Self-assessment.</li> <li>Peer assessment with external facilitators.</li> </ol> </li> <li>We executed the action plan resulting from the previous year's assessment and approved the methodology for the assessment of the Board's term in office.</li> <li>The assessment was undertaken by Board members and Company management.</li> <li>The results were analyzed by the Management and Corporate Governance Committee, which proposed improvement actions to the Board. In turn, these measures, which did not concern changes of membership or of governance practices, were approved.</li> <li>High results (strengths according to the assessment methodology; maximum score is 5): <ol> <li>Contribution and commitment of members: 4.8.</li> <li>Performance of the Board of Directors as a team: 4.8</li> <li>Performance of committees: 4.8.</li> </ol> </li> </ul>

Management Team: The highest internal steering body made up of the company's upper managers, who address the economic, social and environmental management of the Board of Directors. Its function is to guide, plan and evaluate management to improve productivity and competitiveness and promote the creation of value. It is in charge of establishing the strategy, approach and practices of sustainable management, the scope of relations with stakeholders, and ensuring the achievement of corporate objectives. The CEO is the executive position with direct responsibility for economic, environmental and social matters, and reports directly to the Board of Directors, in the first instance through the Management and Corporate Governance Committee.

It is comprised of the CEO, the managers of Generation Projects, Energy Production, Sales, Finance and Administrative managers, the General Counsel, the Chief Internal Auditor and the Brand Manager.

# FAIR TREATMENT OF SHAREHOLDERS

In compliance with the principle of free and transparent information, we submit to the Financial Superintendence relevant information on Company management. Moreover, the shareholders had access to the Company's books and papers so that they could exercise their right of inspection, and over the year they freely traded their shares. Additionally, in accordance with that decreed by the General Meeting of Shareholders of 2015, the dividends obtained the previous year were paid in a single installment on April 15 of that year.

Learn more about the relevant information submitted to the Financial Superintendence here.

## **CONFLICTS OF INTEREST**

A conflict of interest arises when the Board members and its Committees, the CEO and employees, directly or through third parties, find themselves in a situation that reduces their independence or objectivity, or they are forced to make a decision and/or seek alternative conducts, where they have the possibility of choosing between the interests of the company and their own personal benefit or that of a third party. Following the procedures established for conflicts of interest, two of our Board members raised potential situations of conflicts of interest, which were discussed and addressed by the Board in a timely manner, following which it was determined that there was no evidence of such conflicts.

#### Learn more about:



The criteria and procedures established for identifying and dealing with conflicts of interest.



The Board committees and the issues for which they are responsible.

## Energy of being an **Investor**



Marta **Valderrama** Minority Shareholder

"ISAGEN has always been close relations with all shareholders in seeking to give us useful information, since, whether we are big or small, we have the same level of importance."

# CORPORATE GOVERNANCE PRACTICES ASSESSMENT

According to the Company Bylaws, the Board of Director's responsibilities include approving, assessing and enforcing fulfillment of the corporate governance practices.

The Audit and Risk Committee supports the Board of Directors in assessing compliance with Corporate Governance practices, through presentation of Management and Assessment Reports on these practices to the Board of Directors, in order to be submitted to the General Meeting of Shareholders.

Thus, ISAGEN's corporate governance practices were assessed in 2015 by the Chief Internal Auditor and the Statutory Auditor, in regards to the internal control component. This provided evidence that their constant application in business decisions and actions and their continual strengthening contributed effectively to the attainment of Company goals.

Learn about the assessment of Corporate Government practices fulfillment here





# 2016 CHALLENGE

• To implement and disseminate new corporate governance practices, especially those borne out of the Código País, to Company stakeholders.



## **CONTENTS**

Risk Management

Management of Business Continuity

2016 Challenges



Emiliano **Salazar**Director
Enterprise Risk Management

"Through enterprise risk management, we create value for the Company. We take care in the preservation of Company resources, integration of sustainable practices, and guarantee of business continuity. In this way, we ensure that we are prepared to manage, with anticipation, the vulnerabilities or events that may affect the attainment of our corporate goals, and to contribute information for appropriate strategic and technical decision-making, which allows us to maintain the Company's operating, reputational and financial stability".



# **2015 MILESTONES**

- We updated all risk matrices and their corresponding operational controls.
- We incorporate the Enterprise Risk Management Policy that establishes the guidelines for the management thereof.
- We increased the risk appetite from 2% in 2014 to 3.5% of total equity. The risk appetite is the amount we are prepared to assume if a risk were to materialize.
- We trained 44 managers to promote and facilitate enterprise risk management in work teams, as well as implementing a project to strengthen the risk culture among employees.
- We defined, documented and implemented elements of the Business Continuity Management System to guarantee an appropriate and timely response to interruption events.

We comprehensively manage risks through the systematic implementation of two complementary processes: risk management and business continuity management, for which we have established a risk appetite level and an optimum recovery time for transactions and shares to maintain ISAGEN's stability and sustainability.

In this chapter we present the main management results in 2015.

## **RISK MANAGEMENT**



We establish the context and identify, analyze, assess, monitor and communicate the risks related to the Company's processes and strategy. Moreover, we collate information in matrices that constitute a control mechanism, and work with a parametrized technological tool to record and analyze this information. In 2015, we updated all risk matrices and their corresponding operational controls.

For some of the risks associated with the processes, we defined mitigation measures in addition to the operational controls. One of these measures is the procurement of insurance policies, to form an Insurance Program that seeks to minimize the financial impact of risks materializing that could affect assets, equity or people.

An event worth noting is the new long-term agreement we signed for Combined Material Damage insurance<sup>7</sup>, taking advantage of the favorable insurance market conditions that prevailed in 2015, and anticipating possible tightening of the market in 2016. As a result, we were able to save USD 3,249,444 in premiums for the 36-month validity of the new long-term agreement.

This inventory includes emerging issues and trends such as climate change, environmental degradation, social instability, crises of state, cyber-attacks and other macro-economic factors that are addressed in the World Economic Forum. Below we present our enterprise risk inventory associated with the material topics:

Since 2012 we have identified risks associated with the Company's strategy, which now comprise the enterprise risk inventory.

For these risks, we identified and analyzed the respective causes, controls and situations and carried out monthly monitoring in the Management Commitment and the Audit and Risk Committee.

Combined Material Damage insurance covers all the Company's movable and immovable property against
events resulting from all forms of risk, including those associated with sabotage and terrorism (S&T). It also
covers consequential losses arising out of such material damage (Loss of Profit).

Material topic	Corporate risk	Description of risk	Risk level	Association with World Economic Forum emerging risks and trends
<ul> <li>Innovation and development of skills for the management of industry-specific technologies.</li> <li>Development of new business opportunities.</li> </ul>	Inadequate growth strategy	Decisions, prioritization and assessment of growth options that can cause losses to the Company value.	Moderate	<ul> <li>Climate change.</li> <li>Polarization of society.</li> <li>Collapses of financial institutions and mechanisms.</li> <li>Breakdowns of national governance.</li> <li>Collapses or crises of State.</li> <li>Food crises.</li> <li>Social instability.</li> </ul>
<ul> <li>Comprehensive employee development.</li> <li>Innovation and development of skills for the management of industry-specific technologies</li> </ul>	Inadequate management to ensure staff with the required skills	Situations that affect company productivity. In particular, those resulting from a lack of availability of sufficient staff with the knowledge and professional performance required by ISAGEN to achieve the Company's objectives.	Moderate	
<ul> <li>Company concept based on the human being</li> </ul>	Inadequate corporate architecture	Inadequate definition of and/or failure to adopt the policies, practices and mechanisms required to develop the corporate strategy, which affects the achievement of ISAGEN's objectives, operational efficiency and sustainability.	Moderate	

Material topic	Corporate risk	Description of risk	Risk level	Association with World Economic Forum emerging risks and trends
<ul> <li>Company value</li> </ul>	Inadequate financial management and strategy	Financial decisions that may impede or hinder normal business development and which affect the sustainability, strength and value of the Company	O High	<ul> <li>Regime changes</li> <li>Weakening of international governance</li> <li>Energy price shocks</li> <li>Collapses of financial institutions and mechanisms</li> <li>Extreme weather events</li> <li>Natural disasters</li> <li>Social instability</li> </ul>
<ul> <li>Company value</li> </ul>	Inadequate or inappropriate response to macroeconomic changes	Inappropriate or insufficient reaction to the impact of macroeconomic volatility on the value of ISAGEN's assets and liabilities.	O High	<ul> <li>Unmanageable inflation</li> </ul>
<ul> <li>Energy production and sales</li> </ul>	Unavailability of energy resources or generation sources	Insufficient energy resources (other than water) and/or significant increases in their cost, affecting the ability to guarantee sales commitments to the energy market.	O High	<ul> <li>Urbanization</li> <li>Energy price shocks</li> <li>Losses of biodiversity and ecosystem collapses</li> <li>Water crisis</li> </ul>
<ul> <li>Comprehensive employee development</li> <li>Human Rights</li> <li>Sustainable relations</li> <li>ISAGEN as an agent of change in the regions where it operates</li> <li>Occupational Safety and Health</li> </ul>	Inadequate social, political and security conditions.	Social conditions or malicious acts by third parties that put the security of ISAGEN's personnel or assets at risk, affecting company operations.	<b>O</b> Extreme	<ul> <li>Increased income dispersion</li> <li>Urbanization</li> <li>Breakdowns of national governance</li> <li>Collapses or crises of State</li> <li>Food crises</li> <li>Social instability</li> </ul>
• Company value	Inadequate management of Information and Communication Technologies (ICT)	A situation in which the Information and Communication Technologies are limited in their ability to accommodate services with the degree of reliability, security and quality required by the Company.	OModerate	<ul> <li>Increased hyperconnectivity</li> <li>Damage to infrastructure and information networks</li> <li>Large-scale cyber-attacks</li> <li>Large-scale data theft and fraud</li> </ul>

Material topic	Corporate risk	Description of risk	Risk level	Association with World Economic Forum emerging risks and trends
<ul> <li>Energy production and sales</li> <li>Development of new business opportunities</li> <li>Business ethics</li> <li>Supply chain</li> </ul>	Non-compliance, unawareness or instability with legal or regulatory norms	Lack of compliance with or knowledge of laws or regulations that could result in decisions that are unfavorable to ISAGEN's interests. On the other hand, legal or regulatory instability may significantly affect the Company's capacity to efficiently carry out its business and to adapt to change, and as a consequence, may result in a failure to comply with regulations.	O High	<ul> <li>Polarization of society.</li> <li>Regime changes.</li> <li>Weakening of international governance</li> <li>Breakdowns of national governance</li> <li>Collapses or crises of State</li> </ul>
<ul> <li>Energy production and sales</li> </ul>	Inefficient sales strategy and management	Inadequately defined or executed sales strategy, which impedes or hinders objectives in terms of net revenue, sustainability of energy and related service sales and contribution to the Company's higher purpose.	O High	<ul><li>Energy price shocks.</li><li>Unmanageable inflation.</li></ul>
<ul> <li>ISAGEN as an agent of change in the regions where it operates</li> <li>Supply chain</li> </ul>	Inadequate management of generation assets	Lack of or inadequate definition of strategy, planning, execution and verification across the different stages of the generation asset life cycle that inhibits effective management.	Moderate	Faults in the physical infrastructure
<ul><li>Company value</li></ul>	Cyber-attacks	Attacks associated with the use of information and communication technologies, as a means or an end, that acts in breach of the integrity, availability and confidentiality of information, causing damage or harm to people, equipment, or information, while generating an impact on the Company.	O <sub>Moderate</sub>	<ul> <li>Polarization of society</li> <li>Increase in hyperconnectivity</li> <li>Large-scale cyber-attacks</li> <li>Large-scale data theft or fraud</li> </ul>
• Business ethics	Fraud	Any act that is detrimental to ISAGEN's principles and interests. It may involve deceit, concealment or breach of confidence, and it may be carried out by employees, managers, Board members, or third parties to obtain money, goods or services, to avoid payment or to obtain personal or business advantage.	O High	<ul> <li>Increase in hyperconnectivity</li> <li>Regime changes</li> <li>Breakdowns in national governance</li> <li>Large-scale data theft or fraud</li> </ul>

Material topic	Corporate risk	Description of risk	Risk level	Association with World Economic Forum emerging risks and trends
<ul> <li>Comprehensive water management</li> <li>Biodiversity management</li> </ul>	Water risks	Adverse affects in the production of hydroelectricity due to changes associated with natural and human factors in the variables present in the watershed connected with hydroelectric power plants, which affect their water resources.	O Extreme	<ul> <li>Climate change</li> <li>Environmental degradation</li> <li>Energy price shocks</li> <li>Extreme weather events</li> <li>Losses of biodiversity and ecosystem collapses</li> <li>Collapses or crises of State</li> <li>Water crises</li> </ul>
<ul> <li>Comprehensive water management</li> <li>Climate change</li> <li>Biodiversity management</li> </ul>	Inadequate climate change strategy	Effects of climate change on water resources used to generate hydroelectricity.	O High	<ul> <li>Climate change</li> <li>Weakening of International Governance</li> <li>Extreme weather events</li> <li>Failure to adapt to climate change</li> </ul>
<ul> <li>Comprehensive water management</li> <li>Climate change</li> <li>Biodiversity management</li> <li>Human Rights</li> <li>ISAGEN as an agent of change in the regions where it operates</li> </ul>	Inadequate environmental and social strategy	Absence of actions to ensure Comprehensive Environmental Management in project construction and electricity production without incorporating best practices; compliance with commitments related to the processing of permits, licenses and environmental management plans; complementary social and biophysical management; and preparation of the Company on corporate environmental issues to contribute to the environmental sustainability of ISAGEN's facilities and their surroundings.	<b>O</b> High	<ul> <li>Environmental degradation</li> <li>Polarization of society</li> <li>Increased income dispersion</li> <li>Regime changes</li> <li>Urbanization.</li> <li>Extreme weather events</li> <li>Social instability</li> <li>Foods crises</li> <li>Natural disasters</li> <li>Failures to adapt to climate change</li> </ul>

#### Learn more about:



Enterprise risks



**>>>** Connection between corporate risks and material topics

# MANAGEMENT OF **BUSINESS CONTINUITY**

A comprehensive and systematic process to identify potential impacts that can threaten our position in the market, composed of three basic elements: emergency response, crisis management and operational continuity.

In 2015 we developed continuity strategies and documented Operation Continuity Plans using response and recovery tools, for equipment identified as critical in the Business Impact Analysis (BIA). We also carried out drills for Emergency Plans and the Disaster Recovery Plan (DRP), in addition to exercises based on public risk action guidelines. We began work on the implementation of a technological tool that facilitates the management of strategies and plans. The following are some of the other achievements and lessons learned in 2015:

### Enterprise Risk Management Policy

The Enterprise Risk Management Policy was approved by the Board of Directors, thereby establishing the guidelines for their management and seeking to guarantee business continuity in the face of the different risks to which we are exposed.



See the **Enterprise Risk Management Policy here**.

### Risk Appetite

In 2015 we reviewed the risk appetite level in the Company, and as a result, it was increased from 2% to 3.5% of our total equity. This figure was defined as the maximum amount we are prepared to assume in the case of a risk materializing.

### Enterprise Risk Management Maturity Model

With the support of Fundalarys (Latin American Risk Management Foundation), an international organization that coordinates risk certifications throughout Latin America, we designed a maturity model for ISAGEN enterprise risk management as an evolutionary, dynamic self-evaluation and monitoring mechanism. Moreover, we applied the model with the support from the Management Team in order to determine the comparison baseline and enable future identification of gaps in Enterprise Risk Management System components. To do so, we analyzed and selected the organizational attributes through which we measure the level of maturity, taking those described in the RIMS - Risk Management Society - maturity model as a reference. The attributes are considered elements that indicate whether our Enterprise Risk Management is reaching the agreed and desired level in accordance with our needs and expectations. Accordingly, the attributes selected were: 1. Approach of the Corporate Management Model based on Enterprise Risk Management, 2. Adoption of Enterprise Risk Management Team in the way work is done, 3. Risk Appetite Management, 4. Application of Cause and Impact Analysis, 5. Process to identify new and hidden risks, and 6. Risk-based strategic planning process.

# The Enterprise Risk Management Culture

We developed a project to strengthen the risk prevention culture as a fundamental pillar in the development of employees' responsibilities. Along these lines, we conducted audience segmentation and executed strengthening strategies such as the launch of the ERM Session in electric power plants, imparting basic knowledge of risk management and business continuity management to employees. In turn, we visited most of

the main groups in the Company, raising awareness and resolving concerns. Another strategy consisted of defining a new risk manager profile to include roles related to business continuity, and renewing the risk manager network along with managers. The risk manager is the ambassador assigned to each work team to promote and facilitate enterprise risk management within these teams; during the year, we trained 44 employees.

### Methodology for Managing Generation Project Risks

We designed the methodology for managing generation project risks as an action forming part of the value creation strategy. This methodology seeks to assure adequate management of risks in projects and to comply with the requirements of stakeholders and good practices.

# Sustainability of Business Continuity Management

In order to ensure a continual cycle of planning, improvement and execution, we define, document and implement elements of the Business Continuity Management System: manual, responsibilities, roles, coordinated testing, etc. In this way, we guarantee an appropriate and timely response to operation interruption events.

Finally, the effectiveness of the Integrated Risk Management System, its functioning and compliance therewith, as well as the situations that arise, are assessed by the Audit and Risk Committee.



Learn about the Audit and Risk Committee Bylaw here.



# 2016 CHALLENGES

- O Continue strengthening the risk management culture through training for ISAGEN employees, risk managers and management.
- O Conduct tests integrated into business continuity plans, taking into account various system components, which will help strengthen organizational capacity to respond to more complex events that involve the coordinated activation of several plans, while contributing to the greater efficiency of the resources available in the Organization to carry out these tests.
- O Manage the insurance program and analyze the viability of implementing alternative risk transfer schemes to traditional insurance.



## **CONTENTS**



# **2015 MILESTONES**

**Initiatives** 

Assessments

Our Commitment to Sustainable Development Objectives (SDOs)

2016 Challenges

We remained on the Dow Jones Sustainability Index (DJSI) for the third year running, which places us as a global benchmark in the Emerging Markets category.

We are ranked among the 100 most sustainable countries in the world, according to the RobecoSAM 2016 Sustainability Yearbook, the organization in charge of assessing this index, which recognizes the best practices in the economic, environmental and social spheres among public listed companies.

For the sixth time, we received the ANDESCO Corporate Social Responsibility Award for the Best Large Public Utility Company and honorable mention in the Best Environmental Performance category.



## **2015 MILESTONES**

- We conducted an analysis of the Sustainable Development Objectives and its connection to corporate management.
- We took part in the World Summit on Sustainable Development, held at the UN headquarters in New York, which focused on SDOs.
- We supported the second Global Compact course, "The World We Want".
- The 2020 Sustainable Leaders Agenda (ALAS20) highlighted the genuine commitment to sustainability of our CEO, Luis Fernando Rico, by granting him the President of Leading Company in Sustainability award.

Togenerate development that balances economic growth with social progress and environmental protection for all citizens, companies and civil society organizations. We are aware of this and our genuine commitment to regional, national and international sustainability initiatives, which represent coordinated efforts to tackle issues that generate transformation and promote a fair, transparent, and equitable society. We also stress the importance of assessing our practices using national and international standards as an opportunity to incorporate lessons that will continue to steer our management and that of others toward sustainable development.

In this chapter we share the initiatives that we have committed to, as well as the alliances established and the standards implemented:

## **INITIATIVES**



### **Cross-cutting Initiatives**

Initiative	Approach	Commitment	Characteristics
United Nations Global Compact Spanish-language version © English-language version ©	Human development depends on achieving a sustainable global dynamic based on universal principles.	<ul> <li>To align the strategy in accordance with human rights, and labor, environmental, and anticorruption standards.</li> <li>To promote good practices among different stakeholders.</li> <li>To publish the annual Communication on Progress (COP) aimed at stakeholders.</li> </ul>	Date of accession: 2005 Scope: universal Participants: companies and civil society organizations. Management: the entire 2015 Management Report.
Sustainability Agreement  Spanish-language version	Brings together companies motivated by the development of ethical, innovative and responsible business models that promote balanced economic, social and environmental development.	To reflect the contents of the agreement in the Company's strategy and operations, and report on progress through the Management Report.  Learn more about how we comply with this agreement here.	Date of accession: 2014 Scope: nationwide Participants: companies Management: the entire 2015 Management Report.

### Human Rights and Peace

Name	Approach	Commitment	Characteristics
Global Compact Business for Peace  Spanish-language version ©  English-language version ©	To expand and develop private sector actions to support peace in the workplace, markets and local communities.	<ul> <li>To implement the Ten Global Compact Principles in areas of high risk or affected by conflicts.</li> <li>To adopt measures to promote peace.</li> <li>To communicate progress annually through the Communication on Progress (COP) or Management Report.</li> </ul>	Date of accession: 2013 Scope: universal Participants: companies Management: Human Rights and Peace Building chapter.

Name	Approach	Commitment	Characteristics
Guides on Human Rights and International Humanitarian Law in Colombia  Spanish-language version	Multi-actor initiative that seeks to identify and adopt business conduct models in complex settings.	<ul> <li>To participate in the proposed roundtables.</li> <li>To be accountable for the implementation of practices.</li> <li>To promote good practices concerning respect for and promotion of human rights.</li> </ul>	Date of accession: 2009 Scope: nationwide Participants: State entities, companies and civil society organizations. Management: Human Rights and Peace Building chapter.   **Description**
Energy Mining Committee for Security and Human Rights  Spanish-language version   O	Principles that aim to guide extraction sector companies on the provision of security in their operations.	<ul> <li>To participate in the proposed roundtables.</li> <li>To be accountable for the implementation of practices.</li> <li>To promote best practices.</li> </ul>	Date of accession: 2006 Scope: nationwide Participants: State entities, mining and energy sector companies, and civil society organizations. Management: Human Rights and Peace Building chapter.   **Description**
Guiding Principles on companies and human rights  Spanish-language version	The State has an obligation to protect human rights, and companies must respect them. Both have a commitment to provide adequate and effective resources in the event of violations of these rights.	We are committed to comply with the nine guiding principles for companies.	Date of adoption: 2011 Scope: nationwide Participants: State entities, mining and energy sector companies, and civil society organizations. Management: Human Rights and Peace Building chapter.

### Business ethics

Name	Approach	Commitment	Characteristics
Collective Action for Companies from the Electricity Sector	Development and maintenance of a cooperation process to strengthen ethical leadership and publicly declare commitments undertaken.	<ul> <li>To develop and implement a comprehensive anticorruption program.</li> <li>To continue promoting competition in the electricity sector, using as a benchmark good corporate governance practices.</li> <li>To build and disseminate a risk map relating to corruption, restrictive competition practices, and money laundering and financing of terrorism.</li> <li>To encourage transparency in the sector and the market.</li> <li>To disseminate the agreement within the Company and to the different electricity sector stakeholders.</li> </ul>	Date of accession: 2015 Scope: nationwide Participants: companies Management: Business Ethics chapter. •
Transparency and Citizen Participation Network Spanish-language version	Pooling of efforts between institutions and companies from Medellín for transparency, in order to strengthen social control and promote respect for the law among citizens.	<ul> <li>To respect and comply with regulatory frameworks and make decisions.</li> <li>To establish honest, tolerant and inclusive relationships.</li> <li>To reject any form of action that gives rise to corruption, extortion, or bribery.</li> <li>To recognize collaboration and mutual assistance as a path toward the construction of a better society.</li> <li>To recognize in our actions the needs, differences and interests of others.</li> <li>To employ truthful, useful and timely communication.</li> </ul>	Date of adoption: 2014 Scope: nationwide Participants: Public- and private- sector stakeholders. Management: Business Ethics chapter.

### Climate change

Name	Approach	Commitment	Characteristics
Global Compact Caring for Climate  Spanish-language version ©  English-language version ©	To promote the adoption of a global reference framework for business leaders in response to climate change management.	<ul> <li>To align the Company strategy with the proposals.</li> <li>To establish goals associated with the initiative.</li> <li>To develop and implement strategies and good practices.</li> <li>To disseminate greenhouse gas emissions figures throughout the Company</li> </ul>	Date of accession: 2011 Scope: universal Participants: Companies from various sectors Management: Comprehensive Climate Change Management chapter.  (2)
Carbon Disclosure Project (CDP)  Spanish-language version  Versión inglés	Aims to help companies obtain information to make better investment decisions by incorporating climate change as a strategic factor.	To make information gathered by the CDP available to investors that support the project so that they can use it and make better investment decisions.	Date of accession: 2012 Scope: Participants: Companies and cities. Management: Comprehensive Climate Change Management chapter.

### Comprehensive water management

Name	Approach	Commitment	Characteristics
Global Compact CEO Water Mandate	Helps companies in the development, implementation and disclosure of water sustainability practices and policies.	<ul> <li>To include comprehensive water management in the strategic framework.</li> <li>To act in six key areas: direct operations, supply chain and basin management, collective action, public policies, commitment to the community and transparency.</li> <li>To publish the annual Communication on Progress (COP).</li> </ul>	Date of accession: 2014 Scope: universal Participants: Companies from all sectors. Management: Comprehensive Water Management chapter

#### Learn more about:

- The management performed for each of the sustainability initiatives
- Our participation in other associations or organizations that promote sustainable practices



# SUSTAINABILITY EVALUATIONS

Standard	Measurement Objective	2015 Results
Dow Jones Sustainability Index Spanish-language version	Exhaustive and comprehensive analysis of economic, social and environmental performance. Global indicator to determine the level of consistency in sustainability management.	We worked in a responsible manner to pass the demanding international analysis and comply with the requirements for the index of emerging countries, and were therefore included for the third year running in the Dow Jones Sustainability Index (DJSI).  Find out more about our participation in the DJSI here.

Standard	Measurement Objective	2015 Results
International Hydropower Association (IHA) evaluation protocol Spanish-language version •	Conducts an impartial and verifiable assessment of the sustainability performance of power plants and projects for the operation and preparation phases, respectively, based on international standards.	We have been affiliated with this body since 2008.  We applied the protocol in our Miel I Hydroelectric Power Plant and Cañafisto Hydroelectric Power Plant Project to assess their sustainability performance.  We participated in the 5th World Hydropower Congress held by the IHA in Beijing, China, to discuss the future of sustainable hydroelectric energy alongside more than 1,000 delegates, including government representatives, financial institutions, non-governmental organizations, research institutes and private companies from around 60 countries.
Measurement of Corporate Transparency Spanish-language version © English-language version ©	Tools that enable management to be measured in terms of keeping transparent relations with stakeholders, preventing corruption risks, making good use of active transparency in the permanent exercise of sustainability, and adopting or creating policies and mechanisms that strengthen the fight against corruption.	We received a 100/100 rating for transparency practices in which, for eight years running, we have obtained the highest rating of all participating public utility companies.  Learn more about this recognition here.
Código País Survey Spanish-language version •	Promotes the adoption of best corporate governance practices.	We worked toward continuous improvement and training in corporate governance practices, and our positive results in the Código País Survey since 2007 attest to our commitment.
ANDESCO - RSE Award  Spanish-language version •	Assessment of sustainable management of public and domestic utility companies.	For the sixth time, we received the ANDESCO Corporate Social Responsibility Award for the Best Large Public Utility Company, as well as an honorable mention in the Best Environmental Performance category.  To learn more about the ANDESCO Prize, click here.
IR Recognition  Spanish-language version  English-language version	The Colombian Securities Exchange promotes among issuers the adoption of best practices in information disclosure and investor relations.	For the third year running, the Colombian Securities Exchange gave us this recognition as one of the most outstanding companies in the country for our management practices in information disclosure and investor relations.  The IR Recognition awarded by the Bolsa de Valores de Colombia S.A. does not certify the value of listed securities or the solvency of the issuer.
Global Reporting Initiative (GRI) Versión español ❷	International standard that guides companies on the preparation of management reports.	Since 2005 we have applied this standard to prepare the Management Report, which covers our economic, social and environmental performance.

# OUR COMMITMENT TO SUSTAINABLE DEVELOPMENT OBJECTIVES (SDOS)

### SUSTAINABLE GOALS





































The new agenda for sustainable development, with 17 objectives of a global scope, goes far beyond the Millennium Development Goals (MDG) that were assessed in late 2015. They seek to strengthen the right to development through the participation of the 193 United Nations member states that have approved these objectives and will work toward global goals, with 2030 established as the year of review. They apply to developed and developing countries alike, taking into account different realities, capacities and levels of national progress. Although it is a state initiative, support from the corporate sector is vital. That is why we have joined this transformation process.



### Global Compact Course

For the second year running we supported this initiative, led by the Universidad EAFIT, during which knowledge was strengthened on management indicators to measure performance at a national level regarding Sustainable Development Objectives, and five modules were worked on: the post-2015 development agenda, corporate commitment, enterprise and post-conflict, responsible consumption and sustainable purchasing, climate change and corporate eco-efficiency. This course involved 194 people, and was attended by expert lecturers and panelists from business, academia, international organizations and representatives from the highest levels of the National Government.

In 2015 we followed up this initiative by participating in the World Summit on Sustainable Development held at the UN headquarters in New York, as well as in other settings that analyzed the associated challenges, such as Regional Dialogues on Sustainable Development<sup>8</sup>.

Taking part in this initiative requires accountability with stakeholders; therefore, we took part in the definition of the Compass Project, a guide designed to align the business strategy with the SDO, set goals, and measure and manage impacts that contribute to sustainable impact. Moreover, we made progress in prioritizing those SDO that we can contribute to through our management strategy and practices with stakeholders.



Learn more about the relationship between the MDG and SDO here.

<sup>8.</sup> The Regional Dialogues on Sustainable Development are promoted by the United Nations Development Program for Colombia (UNDP), the InterAmerican Development Bank (IDB), and the Ministry of the Environment and sustainable Development, in alliance with the National Planning Department (DNP) and the National Administrative Department of Statistics (DANE).



# **2016 CHALLENGES**

- O To define our corporate stance regarding the Sustainable Development Objectives (SDO), taking into account the peculiarities of each region and the development plans of the areas of influence.
- To support the third cycle of the Global Compact course, which aims at the implementation and promotion of sustainability practices.





## **CONTENTS**

Operation

Maintenance and modernization

Supply

**Energy Resource Management** 

**Environmental Management** 

Knowledge management

2016 Challenges



Diego León **González**Manager
Energy Production

"Technical know-how, discipline and rigor in the operation of a power plant would not have a reason for being or a satisfactory outcome if from the beginning work was not done alongside the suppliers, communities, employees, institutions and other stakeholders. The key is to engage based on trust and dialog in the territories."



## **2015 MILESTONES**

- Third-biggest generator in Colombia with seven power plants, with a total installed capacity of 3,032 MW: 2,732 MW from hydroelectric and 300 MW from thermal power.
- 12.820,79 GW/h of total generation, up 20.84% over 2014 figures. 84.85% of the energy generated was with hydroelectric power.
- 3% increase in contribution to the National Electric Grid, with regards to 2014, giving a total of 19.37%.
- 94.70% operational uptime in power plants, a figure that is in the high averages for global industry.
- 88.35% operational uptime in the Termocentro Power Plant, allowing the plant to account for 15.15% of total company generation.
- \$198,308 million invested in social and biophysical programs in the power plant area of influence, including closure activities for the Sogamoso Hydroelectric Power Plant Project, which started up on December 20, 2014.

Our reason for being is energy. Beyond operating a power plant, our work aims to contribute to supplying the country's energy needs and bolster its progress in the best possible way, complying with regulations, developing increasingly efficient processes and working at the cutting edge of technology. Moreover, through our management, we seek to contribute to the positive transformation of areas that, through collective determination of commitments and efforts, are plotting a course to wellbeing.

In this chapter, we present the operational results of our electric power plants, their maintenance and modernization, supply management, and environmental management guidelines.

## **OPERATION**



Machine station. Jaguas Hydroelectric Power Plant.

We operate seven electric power plants – six hydroelectric and one thermal – making up a total installed capacity of 3,032 megawatts (MW), broken down into 2,732 MW from hydroelectric generation and 300 MW from thermal generation. Below we highlight aspects of our management in this sphere:

- The low rainfall recorded due to a long and intense El Niño phenomenon, initially forecasted to be weak, had an overall effect on the generation of hydroelectric power plants on the National Electric Grid.
- This limited rainfall impacted inflows into the reservoirs with the greatest energy reserves such as Topocoro (Sogamoso plant), San Lorenzo (Jaguas plant) and Amaní (Miel I plant), with total values of 77%, 93% and 72% of the annual forecasts, respectively.

- The Termocentro Power Plant effectively backed energy production with the generation of 1,942.47 GWh, the second highest record in its history. Moreover, on December 1 we began mixed operation at this plant<sup>9</sup> using liquid fuel and natural gas, which constitutes the greatest operating flexibility and supports the National Electric Grid in periods when natural gas is scarce.
- We increased our total generation by 20.84% over the previous year, even though it was affected by the occurrence of the El Niño phenomenon.
- The Sogamoso Hydroelectric Power Plant (820 MW) contributed 24.78% of ISAGEN's total power generation.
- On December 20, 2014, from the startup of this hydroelectric power plant, with its maximum installed capacity, we increased our energy-production capacity by 60% in average hydrological conditions. In 2015, we carried out the complete incorporation of all technical and administrative personnel, thus consolidating the operation of the plant in the production stage and achieving the integration of the various management systems at both technical and organizational level. Additionally, during the initial months of operation, we undertook the scheduled maintenance and the manufacturers made interventions to guarantee the power plant's operational stability, which favored its uptime and reliability.
- We made significant progress on the unification strategy relating to operating criteria and interaction with the National Dispatch Center (NDC). In 2015 we made progress in structuring ISAGEN's Integrated Operating Center for the San Carlos, Sogamoso, Miel I, Jaguas, Calderas and Amoyá power plants, which will progressively assume the consolidation and review of operating and commercial information. With the establishment of the Integrated Operating Center, the power plant operators have more time for the analysis of trends and to monitor the performance of the components and systems pertaining to the generation units and their ancillary equipment.

Moreover, in compliance with CREG Resolution 038 / 2014, we structured the Production Measurement Management Center, which will be responsible for managing all aspects related to measurement systems at the power plants' metering points.

9. From the environmental standpoint, the liquid fuel used is low in sulfur content and the technology of the gas turbine burners are low in Nitrogen Oxide (NOx) and Sulfur Oxide (SOx) emissions, thereby fully complying with the requirements of the Colombian environmental authority.

Learn more about:

- The location and technical information on our power plants
- The energy sector situation



### ISAGEN's Share of Generation for the

### National Electric Grid (SIN)

Our total generation in 2015 contributed to meeting the demand by reaching 19.37% of Colombia's energy demand. We had a 2.88% increase in our contribution due to the startup of the Sogamoso Hydroelectric Power Plant, despite the afore-mentioned adverse effects on generation of the El Niño phenomenon.

ISAGEN's Share of Generation for the National Electric Grid (SIN)



### ISAGEN's Total Installed Capacity



Installed capacity data are taken from the power plant design information, based on the Company's own sources.

# ISAGEN'S Annual Generation

In 2015 we generated 12.820,79 GWh, the highest record in the history of the company to date, and 20.84% higher than that recorded in 2014 following the additional energy generation from the Sogamoso plant.

# Net Generation by Power Plant

The Sogamoso Hydroelectric Power Plant stood out as the power plant with the second-greatest generation in 2015, after San Carlos. Termocentro recorded the third-greatest level, with generation slightly down on 2014 due to the increase in preventative maintenance on its units...



Energy type (GWh) / year	2013	2014	2015
Hydroelectric (GWh)	8,707.73	8,562.64	10,878.32
Thermal	1,614.62	2,046.51	1,942.47
Total	10,322.36	10,609.15	12,820.79

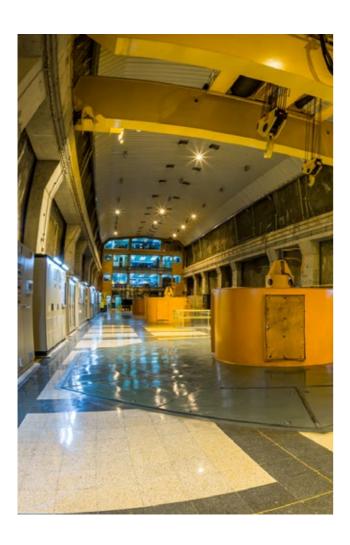


#### **ISAGEN's Net Generation by Power Plant**

	20	)13	20	14	20	15
Power Plant	GWh	Share %	GWh	Share %	GWh	Share %
San Carlos	6,170.06	59.77	5,521.69	52.05	5,558.97	43.36
Miel I	1,506.88	14.60	1,540.13	14.52	1,003.38	7.83
Jaguas	694.22	6.73	702.11	6.62	657.40	5.13
Amoyá	259.67	2.52	402.07	3.79	409.04	3.19
Calderas	76.90	0.74	74.77	0.70	72.61	0.57
Sogamoso	0.00	0.00	321.87	3.03	3,176.92	24.78
Hydroelectric total	8,707.73	84.36	8,562.64	80.71	10,878.32	84.85
Termocentro	1,614.62	15.64	2,046.51	19.29	1,942.47	15.15
Thermal total	1,614.62	15.64	2,046.51	19.29	1,942.47	15.15
Total ISAGEN	10,322.36		10,609.15		12,820.79	

# Uptime by energy type and plant

Our power plant's total uptime was 94.70%, which was greater than the figure reported in 2014.





### Uptime by type of energy (%)

	2013	2014	2015
Hydroelectric	94.2	93.71	95.63
Thermal	88.0	92.45	88.35
Total	93.4	93.55	94.70

The calculation of ISAGEN's hydroelectric and total uptime does not take into account uptime at the Sogamoso plant, given that it only just started operations.



### Uptime (U) by plant (%)

	2013	2014	2015
San Carlos	95.09	95.17	96.13
Sogamoso	-	-	86.22
Miel I	93.49	89.10	94.72
Jaguas	90.82	92.73	95.90
Amoyá	88.54	95.44	92.09
Calderas	94.94	95.55	94.27
Hydroelectric total	94.19	93.71	95.63
Termocentro	88.01	92.45	88.35
Thermal total	88.01	92.45	88.35
Total ISAGEN	93.41	93.55	94.70*

The following formula was used to calculate uptime:

$$D = \frac{\text{(Hp-Hpa)}}{\text{Hp}} \times 100$$

Hp = Hours in the period

Hpa = Hours of downtime

### Termocentro Thermal Plant Generation Efficiency

The following table shows the actual operational efficiency trends at the Termocentro Power Plant:



	2013	2014	2015
Thermal Efficiency (η)	46.20	46.35	44.58

This efficiency is calculated on the basis of net generation and actual annual fuel combustion, in reference to lower heating value.

Formula:

$$\eta = \frac{(P*3413.17)}{0} \times 100$$

Where:

Q is the heat supplied with the fuel

Q= B\*Qi, where B is fuel flow measured in cubic feet and Qi is the lower heating value of the fuel measure in BTU/cubic feet.

P= net power delivered by the power plant in KW.

In 2015, the thermal efficiency was 44.58%, lower than that recorded in 2014, due to a greater generation in the simple cycle; that is, only using gas units between October and November due to the 40-day shutdown scheduled for maintenance of the unit vapor. Moreover, we carried out scheduled



Termocentro Power Plant.

and audited testing that measures the efficiency from the specific thermal consumption and net effective capacity every five years, following the procedure established by the National Electrical Operations Council (CNO). The results showed evidence of the improvement in thermal efficiency and plant capacity by operating under combined cycle base loads<sup>10</sup>, as a result of adjustments to boiler and turbine valves, maintenance of the cooling tower, scheduled maintenance of gas turbines and operational control.

10. A combined cycle thermal plant produces electricity based on two thermal machines with two different thermal cycles: gas turbine and steam turbine.

These efficiency values are within the normal range for combined cycles using W501D5-machine technology from 1996.

For 2016, the management of steam-loss reduction will continue based on the maintenance of drainage valves, venting, improvement of thermal isolation, maintenance of the cooling and condenser tower and execution of major maintenance by changing parts of the compressor and turbine in Unit No. 1. This will allow recovery of capacity and efficiency losses due to normal degradation of the axial turbogas compressor after 18 years of operation.

We carried out a project in the power plant boilers and cooling tower to implement a new Andomine chemical treatment. The new method poses no threat to the health of personnel or to the environment when waste water is discharged, and it complies with international standards. Aside from increasing the useful life and reliability of the boilers, the deep wells and the cooling tower, we achieved savings in water consumption<sup>11</sup>. This project will also permit implementing a new water recirculation system for periods when the power plant is not in continuous operation, eliminating nitrogen consumption shutdown.



### Effective and Sustainable Reservoir Management

In 2015, we developed effective utilization strategies in our reservoirs, including:

- We continued to declare the uptime of the San Carlos power plant based on actual water availability in the reservoir. This was offered based on the demand curve with the objective of operating this hydroelectric power plant more effectively in light of reservoir level variations and to attend to National Electric Grid peaks in demand. This has enabled the reservoir to be effectively regulated and managed, and the economic assignment scheduled by the National Dispatch Center (NDC) to be addressed without setbacks.
- O In coordination with the National Authority of Environmental Licenses (ANLA), we carried out the scheduled and monitored opening of the bottom outlet gates at the Calderas Hydroelectric Power Plant, following the protocol for the removal, management and oversight of sediments in reservoirs, taking into account environmental, social and operational aspects.

- We conducted the bathymetry<sup>12</sup> of the Punchiná, Amaní and Topocoro reservoirs as part of monitoring of the status of reservoirs in the sedimentation processes. This allowed it to be ascertained that, in recent years, there were no significant changes in the useful volumes of reservoirs.
- We established a generation up-ramp at the Sogamoso Hydroelectric Power Plant to promote gradual changes in the turbine flow rates, with the aim of reducing the risks to people or animals due to significant and untimely changes to flow rates downstream, which are caused by the increase in generation. We also installed a down-ramp to reduce or prevent the trapping of fish during lower flow rates as a result of reduced generation. This management, in conjunction with a staggered, gradual change of generation, allows for a reduction in the number of fish trapping sites.

<sup>12.</sup> A bathymetry is an activity carried out to establish the surface area of the floor of a body of water. We conducted bathymetry in the reservoirs to establish their characteristic volumes.

## MAINTENANCE AND MODERNIZATION

The uptime and useful life of power plants depend on the efficiency and safety of our equipment. Maintenance management assures us of the reliability of this equipment for appropriate day-to-day operations, while modernization centers on keeping our equipment and processes up-to-date with cutting edge technology, thus improving yield and ensuring optimal performance in the long term.

We fulfilled 100% of maintenance and upgrade plans, and more than 96% of expected modernization plans governed by quality standards and a continuous improvement cycle. Because of this, we take into account both the technical aspects and commercial commitments to increase power plant productivity in the long run, reduce operating costs, mitigate risks, and incorporate regulatory changes.

### Maintenance

We carried out the maintenance of primary and ancillary equipment. Below we present some of the processes executed in 2015 and their impacts:

Maintenance Processes	Impacts
General maintenance and inspection of gas units, and general and major maintenance of a steam unit at the Termocentro Power Plant.	Assurance of the equipment operating condition. Successful adjustments and tests for generation at units 1 and 2 using liquid fuel.
General maintenance of generation units at the San Carlos, Jaguas, Calderas, Miel I and Sogamoso power plants. Warranty work on Sogamoso power plant units.	The optimum conditions of assets is guaranteed in line with maintenance standards and adequate optimization of costs and resources.
Rescheduling of major maintenance at Termocentro and Miel I power plants for 2016, without risking the operation of equipment, following a technical analysis of their condition.	Optimization of unit shutdown times and responses to the manufacturer's recommendations to guarantee the useful life of equipment.

We made progress in forming the centralized maintenance team, which will include a group of people to provide specialized maintenance services in different power plants. We also consolidated the maintenance schemes for the Sogamoso power plant as part of its startup.

### Modernization

Below we present some of the maintenance processes executed in 2015, and their impacts:

Upgrade Processes	Impacts
Upgrade of Calderas Hydroelectric Power Plant supervision and control system.	Optimization of reliability and uptime in the long term.
Integration of the Calderas and Jaguas power plants to enable their remote operation	Optimization of the work group for both power plants, adequate distribution of personnel and reliability in operations.
Upgrade of the Miel I Power Plant excitation system and initiation of upgrade of the San Carlos power plant excitation systems.	Due to the end of the useful life of components, we have secure and reliable equipment, and also guarantee reliability and security in power plant operation.
Upgrade of the ancillary services substation at the San Carlos power plant.	Given the end of the useful life of components, this process ensures that we have reliable equipment and greater provision in the electrical configuration, which ensures plant autonomy and reliability.
Completion of mitigation and stability works at the dam in the lower part of the San Carlos Power Plant.	Mitigation of possibilities of risk due to ground instability, caused by possible seismic activity in the area.
Decision to postpone the upgrade of the supervisory control and data acquisition system at the Termocentro Power Plant power until 2016.	Optimization of unit shutdown times, increase in the reliability and assurance of full plant uptime. Incorporation of remote management and operation tools for future integration with a centralized Company control center.



## **SUPPLY**

In 2015 we began the structuring of a new Supply team, whose mission is to assure efficient and timely supply of the properties, goods and services necessary to achieve the power plant uptime targets.

- Supply Chain Management: we defined the functional structure and configured the supply chain planning model for the energy production process, complementing it with successful worldwide supply chain management practices.
- Ocomprehensive Lot Management: we fulfilled the 2015 plan on this front at 100%. Moreover, we designed and undertook an ambitious project that seeks to secure property rights for all of ISAGEN's lots. Finally, we managed the registry update of constructed areas in the power plants, achieving savings of approximately \$500 million per year in reduced taxes
- Learn about our supply chain management here.

# ENERGY RESOURCE MANAGEMENT

The efficient use of energy resources allows us to act in adherence with the environmental policy and reduce our carbon footprint, as well as complying with the environmental principles and agreements signed.

Below we share information on the production process inputs (turbine water, gas and liquid fuel) internal and external energy consumption, management for energy savings and energy intensity:

# Supplies used in the Productive Process

#### **Turbine Water**

The main input we use in the energy generation process is water from the reservoir, which is later returned to the water sources. In 2015, the total turbine water at the power plants was 16,825.0 Mm³, with a significant increase due to generation at the Sogamoso power plant, the hydroelectric plant with the greatest turbine volume.



Topocoro Reservoir. Sogamoso Hydroelectric Power Plant.

## Total Turbine Water at ISAGEN's Power Plants (Millions of Cubic Meters) - Mm<sup>3</sup> (2013-2015)



#### **2015 Turbine Volume by Plant**

Power Plant	Mm³
Amoyá	303
Calderas	161
Jaguas	964
Miel I	1,986
San Carlos	3,671
Sogamoso	9,740
Total	16,825

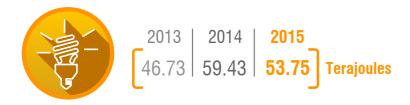
### Natural gas and liquid fuel (2013-2015)

	2013	2014	2015
Total Natural Gas Consumption at the Termocentro Power Plant (MBTU)	13,179,287	16.730,128	16,357,113
Total Emergency Fuel Consumption at Termocentro (Gallons)	465,894	208,589	652,341

# Energy Consumption within the Organization

Internal consumption comes from renewable (hydroelectricity) and non-renewable (fossil fuel) energy, and includes electricity consumed in the energy-generation process, known as ancillary services, fuel for emergency power generators at the power plants, fuel consumed in transport activities by Company-owned vehicles, as well as heavy machinery and on-site plant maintenance. Electricity is only purchased from third-parties for consumption at the headquarters.

#### **Energy consumption of the Power Plants in terajoules (2013-2015)**



## (EN3) Electricity Consumption of the Headquarters in terajoules (2013-2015)



#### Fuel Consumption<sup>13</sup> within the Organization in Terajulios (2015)



# Energy Consumption outside the Organization

External consumption comprises transportation activities carried out using vehicles belonging to companies contracted for the transfer of our employees. The data is taken from information reported in the greenhouse gases inventory, and does not include energy consumption by our suppliers. This is the first time that the indicator is reported, so we do not yet have historical data with which to compare progress.

#### ISAGEN'S external consumption in terajoules (2015)



13. The fuel consumption data is taken from consolidated information reported in the Greenhouse Gases Inventory. No internal electricity consumption by projects is included, as no construction projects were underway in 2015.

### Comprehensive Energy Management (CEM) **Pilot Project**

At the San Carlos Power Plant, we are developing a CEM pilot project that seeks to optimize processes and reduce energy consumption by power plants, in accordance with the ISO 50001 standard.

In 2015 we continued to carry out activities for the implementation of a culture oriented at energy efficiency, and also made progress in the identification of energy resource usage, technological modernization pilot processes, and tools for managing energy performance indicators.

In the partial results from this pilot project, for 2015 we recorded a reduction in electricity consumption of approximately 32% in oil cooling pumps in the transformers, which attests to the effectiveness of technological improvements. Taking into account this pilot, and based on our projections, we estimate that with project continuity in the medium- and long-term, we can achieve savings close to international figure regarding the efficient use of energy in drive systems; that is, reductions of up to 25% after implementation of a system of this type.

We will continue working on the pilot of Comprehensive Energy Management so as to be able to evolve toward an efficiency program that will serve the processes with the most impact in the energy production process.

Learn more about Comprehensive Energy Management with clients here.

### **Energy Intensity 2015**

We reviewed and adjusted the methodology for calculating energy intensity in a way that more clearly reflects the purpose of the indicator required by the GRI methodology, presenting it in 2015 as the ratio between internal energy consumption required for energy production and total net generation by the Company.



	2015
Total Internal Consumption for Generation (Gigajoules)	132,730.00
Total Net Generation (GWh)	12,820.79
ISAGEN Energy intensity (Internal Consumption/Total Net Generation GJ/GWh)	10.35

This data shows that we require the use of 10.35 gigajoules to generate one gigajoule-hour of energy. These results will be the base line from which we will learn of future trends in the use of internal energy and the impact that the directed initiatives can have on energy efficiency.

# ENVIRONMENTAL MANAGEMENT



The environment in which we operate includes three dimensions: biotic (flora and fauna), physical (water, air and soil) and social. When operating our plants, we take into account their inter-relations and commit to comprehensive environmental management, encompassing identification, assessment, prevention, correction, mitigation and compensation of negative environmental and social impacts, as well as the fostering of the positive ones, thereby complying with existing and applicable environmental legislation. We conduct the corresponding environmental impact assessments and environmental management plans, and always adopt the principle of concern: if there is any doubt as to the effect one of our actions or activities may cause, we refrain from implementing it. In all our project and power plant areas of influence, we carried out this assessment and implemented development programs, based on an understanding of the characteristics of each region and facilitating community participation.

We sustained the Environmental Management System (SGA) based on the NTC-ISO 14001:2004 standard, with integrated elements that ensure that energy generation and sale activities are carried out in accordance with criteria of social and environmental responsibility criteria. It encompasses planning, operational control, resource management and an environmental policy that guides our actions and establishes four fundamental objectives: incorporating comprehensive environmental management in corporate activities; contributing to sustainable development of the Company environment in the long term; and building, maintaining and strengthening the confidence of authorities, communities and other stakeholders in the environmental management we practice.

Below we share the environmental management criteria that are the basis for complying with the commitments that we undertake with the areas:

### ISAGEN Environmental Management Criteria

Structural criteria

Coherent management from the project assessment and construction phases, through to the start-up phase of the power plantl

Sustainable management that contributes to social development and wellbeing, including the protection of water and natural resources

Technical, economic, environmental, social and legal viability

Shared value that generates economic, environmental and social benefits for society

Comprehensive management: articulation between the social and the biophysical

Concerted management that privileges the common over the private good

Management articulated between local actors and regions

Our environmental management<sup>14</sup> is composed of:

- O Environmental Management Plans: actions established by law that directly addresses the impacts caused by the assessments, the construction, or the operation of electric power plants.
- O Legal Transfers: transfer 6% for hydroelectric power plants and 4% in the case of thermal power plants to municipalities and regional environmental authorities based on gross energy sales by Company-generation in line with the tariff that the Energy and Gas Regulatory Commission establishes for bulk sales.
- O Complementary Investment: voluntary actions, in addition to legal obligations related to environmental licenses and permits, that we undertake to contribute to community benefits as part of sustainable human development.

In the Environmental Committee, we shared knowledge on relevant topics for the Company's environmental management and disseminate the improvement actions implemented that can be replicated in other power plants in operation, in order to prevent the materialization of situations of risk.

<sup>14.</sup> All our environmental investments correspond to commitments with Colombian environmental legislation (environmental management plans) and with commitments to our complementary (voluntary) management. They do not correspond to commitments that are commercial, pro bono, or in kind.

#### In 2015:

- We met the requirements and goals set forth in the environmental management plans related to the administration of permits, licenses, and other commitments assumed. Moreover, we responded to the technical and environmental requirements of the Overseas Private Investment Corporation (OPIC). In 2015, we received no fines or sanctions for non-compliance with environmental laws and regulations.
- O We obtained official notification from ICONTEC regarding the renewal of ISO 9001, ISO 14001 and OHSAS 18001 certifications for the San Carlos, Jaguas, Calderas, Miel I and Termocentro power plants. The certification for the Amoyá River, La Esperanza Hydroelectric Power Plant was also included.
- We made progress on formulating the Environmental Management Plan (EMP) for the Sogamoso Power Plant operation phase, through the amendment of the project environmental license, as well as the procedures and implementation of the elements necessary for certification of the Sogamoso power plant management systems based on the ISO 9001, ISO 14001 and OHSAS 18001 standards.
- We satisfactorily transitioned the Sogamoso Power Plant into the operation phase. The Environmental Management Plan (EMP) activities corresponding to the construction phase, which remains underway in order to complete the natural transition from project to power plant, is related to the resettlement project and the associated productive projects, forestry recovery in the Serranía de los Yariguíes National Park, and the works connecting the Sogamoso River with the El Llanito Swamp.
- The establishment of agreements with communities and local actors in the Sogamoso power plant's area of influence has taken longer than expected. However, we have made satisfactory progress in stabilizing and strengthening relations in order to address their expectations in line with the roles and responsibilities of the Company, the State and civil society.
- We made progress with local actors in our areas of influence through institutional organization, in the joint construction of regional development proposals, and in the implementation of activities oriented to the positive transformation of their area.
- A total of \$50,185 million were paid to municipalities and regional autonomous corporations in Legal Transfers. In the areas of influence of the electric power plants, \$29,808 million contributed as part of the environmental management plans, and \$13,824 million in complementary investments. In the Sogamoso power plant project closure activities, we invested \$153,476 million in the EMP, and \$1,200 million in complementary management.

Learn more about the practices, results and challenges associated with environmental management:

- Environmental Policy
- Physical, biotic and social impacts (real and potential) with their respective programs, included in the Environmental Management Plans. In 2015, we did not have any projects in the construction phase
- Investment in Social and Management Programs
- Transformational Role in the Regions (Social Management)
- Protection of
  Biodiversity (Biotic
  Management)
- Comprehensive
  Management of Water
  and Climate Change
  (Physical Management)
- Human rights and Peace Building

### KNOWLEDGE MANAGEMENT



In 2015, we strengthened our knowledge management strategy, called Genoma. This initiative joins and creates spaces for disseminating, transferring and strengthening knowledge on the energy production process.

We consolidated the Operation and Maintenance School through the approval of a policy with guidelines and the formation of the Academic and Administration Committee to ensure its governance and sustainability. We also reviewed and adjusted the training contents and objectives to adapt them to the needs of the Company, and, finally, we ran ten training courses and one virtual module.

Moreover, we held the fourth edition of the Technical and Innovation Workshops, which promoted the transfer of knowledge in the Company through the presentation of documents, lessons and innovative ideas, which are developed and implemented by employees throughout the year and made public at a corporate event. As a result, we yielded 16 technical documents, five lessons learned and ten innovative ideas.

#### See the knowledge management results here

In addition, we participated for one year in different academic, national and international spaces to exchange and share experiences and knowledge, and to introduce new ideas. Worthy of note is the 7th World Congress on Maintenance and Asset Management of May 2015, held in Cartagena and organized by ACIEM, Cundinamarca branch, in which a member of the Company's maintenance team delivered a lecture entitled "Methodology for the optimization of maintenance costs based on the analysis of the operational risks of production and peripheral assets," with satisfactory results presented in terms of the latest developments in operational reliability and continuous improvement..



# 2016 CHALLENGES

- O To make progress in the implementation of a Centralized Control Center for the supervision of power plants, and implement the modernization of the Termocentro Power Plant Control System.
- O Startup and consolidation of comprehensive supply chain management for energy production, and progress in the program to address the comprehensive management of the Company's lots, following incorporation of lots at the Sogamoso power plant, and the management of easements.
- Operation of the Termocentro Power Plant during the period of low rainfall triggered by the El Niño phenomenon in the first half of 2016, and the performance of major maintenance on Unit 1.



# CONTENTS

**Commercial Operation** 

Regulation and Market Management

Productive solutions for clients

2016 Challenges



Luis Fernando **Londoño** CEO Energy Sales

"Our goal is to continue to have satisfied, loyal clients and happy employees in continuous development, now and in the future, and to contribute to a market and a country in permanent growth".

### **ISAGEN'S ENERGY SALES:**



#### REGULATED MARKET

Clients that consume less than 55,000 KWh or reach maximum demands less than 100 kW.





#### Major resellers

Distribution companies that belong to the wholesale market and bring power to the end user.

Our business consists of power generation and sale therefore, we do not have a distribution license. Because we do not directly provide service to residential users, we do not perform the disconnection service for this segment.

#### **NON-REGULATED MARKET**

Clients that consume more than 55,000 KWh or reach maximum demands more than 100 kW.





#### Industrial end clients

Most are companies from the manufacturing sector located in major cities of the country that, based on their characteristics of energy and/or power consumption, can buy the energy for their production processes freely. We offer these clients a portfolio of personalized energy solutions, which are provided by a group of professionals in alliance with leading engineering companies that make up our Technology Partner Network.

#### **Spot Market (Energy market)**

Market on which energy surplus or shortages of the generators and resellers is traded daily.



### **2015 MILESTONES**

- 19% non-regulated market share.
- 99.48% of the contracts renewed with end industrial clients.
- 4.79 was the customer satisfaction indicator.
- 24.89% increase in revenue from energy and gas sales.
- 22 clients incorporated in the Comprehensive Energy Management (CEM) Program for a total of 92 since 2011, focused on contributing to their productivity and efficient use of water and energy, as well as reducing greenhouse gases.
- \$922,530 million invested in the CEM strategy, up 6% from 2014.

The sale of electricity, gas and technical services through different channels is the way we deliver our energy to the market and meet the needs of industrial and wholesale clients, while diversifying risks, increasing stability and maximizing revenue.

This chapter presents the main results of our business management in 2015:

We optimize our energy resources to generate sustainable revenue in accordance with the return expectations of our investors, thanks to the delivery of comprehensive solutions that contribute to competitiveness and the environmental responsibility of the industry through a collaborative network that produces shared value. We also want our energy and commercial service system to benefit the entire national territory as a result of a client and geographic diversification strategy.

We build value propositions that integrate the Company's capabilities with those of its allies, on the principle of always keeping our promise and building transparent relations based on trust. The remuneration of the market for our energy solutions is reflected in a platform of innovation and development that is always looking out for new opportunities.

### **COMMERCIAL OPERATION**

We have taken the steps to deal with El Niño weather conditions and we succeeded in developing the initial curve of experience for the Sogamoso Hydroelectric Power Plant to operate commercially during its first year. In order to optimize commercial management, we secured the natural gas for the generation of the Termocentro Power Plant at competitive prices. The plant had a generation of 1,942.47 GWh, thus backing the operation of our reservoirs and contributing to the energy optimization of the National Electric System in view of adverse hydrological conditions.

In addition, we acquired firm gas to generate at 50% capacity of the Termocentro Power Plant, which will provide a commercial operation backed with thermal energy to deal with the effects of El Niño expected for the first half of 2016. Furthermore, we added the possibility of generating with diesel fuel to improve the integrity of the Termocentro operation and generate better reliability in the liquid fuel logistics of the thermal power plant in the long term.

On another note, we signed Take or Pay (ToP) Gas Contracts to cover 50% of Termocentro's obligations of Firm Energy to be purchased at the Reliability Charge rate until 2019. Along with the backup of the other 50% of the obligations with liquid fuel, this will enable the thermal power plant to secure its income and cover the variable operating costs in the event of a critical condition in the electricity market. Also, the combined gas and liquid fuel backup system will make us competitive in view of the announcements made by the regulator to place the Firm Energy to be purchased at the Reliability Charge rate.

The main challenge for the 2016 commercial operation is to deal with the reliable use of the generation resources available while the weather conditions ripen, in order to maximize fulfillment of the contractual commitments and with the market. In order to do so, natural gas must be procured on the primary and secondary markets to replace the possible operation at 50% capacity of the Termocentro Power Plant with liquid fuel in the first half of 2016. In the long term, alternatives will have to be assessed to supply this thermal power plant with imported natural gas and/or alternative systems with other fuels, and to find the best combination of fuels for the next Reliability Charge allocations. In addition we will work to become an active agent in the fuel sales mechanisms.



### Revenue from energy and gas sales



	2014	2015	Difference 2015-2014	Growth 2015-2014
	Millions of \$	Millions of \$	Millions of \$	%
Domestic Contracts	1,849,064.14	1,991,346.80	142,282.65	7.69
International Contracts	6,962.63	0.00	-6,962.63	-100.00
Spot Market Trading	260,319.41	590,294.09	329,974.68	126.76
Start-Up and Shut-Down	905.31	0.00	-905.31	-100.00
Frequency Regulation (AGC)	230,421.29	373,912.12	143,490.83	62.27
Reliability Charge Refund	-93,174.68	-159,613.46	-66,438.78	71.31
Reliability Premium Backup	9,867.36	22,446.64	12,579.28	127.48
Deviations	778.86	3,739.01	2,960.16	380.06
Technical Services	8,689.05	8,522.62	-166.43	-1.92
Gas	2,838.30	12,759.04	9,920.74	349.53
Other	574.95	615.24	40.29	7.01
Revenue	2,277,246.61	2,844,022.10	566,775.49	24.89

# Expenditures from Energy and Gas Sales



	2014  Millions of \$	2015 Millions of \$	Difference 2015-2014 Millions of \$	Growth 2015-2014
Domestic Contracts	57,822.64	53.60	-57,769.04	-99.91
International Contracts (VENEZUELA)	44.10	0.00	-44.10	-100.00
Spot Market Trading	544,259.11	510,867.38	-33,391.73	-6.14
Start-Up and Shut-Down	21,158.98	15,719.39	-5,439.59	-25.71
AGC Commercial Responsibility	42,513.43	67,723.83	25,210.39	59.30
Reliability Premium Backup	284.22	0.00	-284.22	-100.00
Deviations	543.36	1,287.08	743.71	136.87
Restrictions	17,762.69	25,776.33	8,013.64	45.12
NTS, RTS and LDS use	185,439.33	202,792.00	17,352.67	9.36
NTS Connection	12,627.39	14,586.94	1,959.55	15.52
Management services	9,512.78	13,294.28	3,781.50	39.75
Law 99/93 Contributions	39,731.67	50,184.96	10,453.29	26.31
FAZNI Contributions	12,095.88	15,564.19	3,468.31	28.67
Gas	254,762.76	309,038.54	54,275.78	21.30
Technical Services	9,969.12	10,449.69	480.57	4.82
Total Expenditures	1,208,527.46	1,237,338.21	28,810.74	2.38

Because of a change in how the Reliability Charge and AGC are accounted for, the total values of the revenue and expenditure figures from energy and gas sales in 2014 are not the same as those published in previous reports.



### Long-term Contracts

- We addressed the needs of 30 wholesale clients and 281 metering points of industrial end clients through long-term contracts. The total demand of our non-regulated and wholesale clients represented 17.90% of the total national demand (66,173.99 GWh).
- Total contract sales in 2015 reached 11,842.17 GWh/year, which is a 3.28% increase compared to sales in 2014 (11,466.35 GWh/year). Similarly, we exceeded 2014 revenue by 6.72%, reaching \$1,991,346.80 million.
- The total demand of the non-regulated market served by the Company rose slightly (2.63%), and continues to hold a significant share of this

- segment, reaching 19% in 2015. In turn, reseller demand increased 3.95% compared to 2014.
- There were no energy exports to Venezuela in 2015. As a result of the weather conditions and the forecasts of El Niño, a proposition was submitted registering exposure to spot market prices, which was not accepted by the counterparty because it did not comply with the budgeted values.

	201	4	201	5	Differer 2015-20		Grov 2015-2	
	Millions of \$	GWh	Millions of \$	GWh	Millions of \$	GWh	%\$	%GWh
Domestic Sales	1,858,931.51	11,442.18	1,991,346.80	11,842.17	132,415.29	399.99	7.12	3.50
Resellers	1,058,233.35	7,504.13	1,169,230.31	7,800.23	110,996.96	296.10	10.49	3.95
Large Consumers	800,698.15	3,938.05	822,116.48	4,041.93	21,418.33	103.88	2.67	2.64
International Sales	6,962.63	24.18	0.00	0.00	-6,962.63	-24.18	-100.00	-100.00
<b>Contract Sales Total</b>	1,865,894.14	11,466.35	1,991,346.80	11,842.17	125,452.66	375.81	6.72	3.28
<b>Contract Purchases Total</b>	57,822.64	429.82	53.60	0.00	-57,769.04	-429.82	-99.91	-100.00



### **Spot Market Transactions**

- The sales on the spot market amounted to 1,926.41 GWh in 2015, up 49.85% from those reported in 2014 (1,285.56 GWh), representing 3% of the National Electric Grid demand. Revenue from these sales was 20.76% of total company revenue in 2015.
- Energy purchases on the Market were 36.21% lower than 2014, reaching 1,464.43 GWh. This value accounted for 40.29% of the expenditures of the commercial operation in 2015, compared to 43% in 2014.
- The following are the figures in millions of pesos and GWh of the energy sold on the spot market in 2014 and 2015:

	201	4	201	5	Differe 2015-2		Grov 2015-	
	Millions of \$	GWh	Millions of \$	GWh	Millions of \$	GWh	%	%
Market Sales	260,319.41	1,285.56	590,294.09	1,926.41	329,974.68	640.85	126.76	49.85
Market Purchases	544,259.11	2,295.63	498,551.92	1,464.43	-45,707.19	-831.20	-8.40	-36.21
International Electricity Transactions			12,315.46					
Neto	-283,939.71	-1,010.07	91,742.16	461.98	375,681.87	1,472.05	-132.31	-145.74

### Reliability Charge

O Since 2006, the current methodology has been in place for reliability charge of the Colombian electrical system, as defined in CREG Resolution 071 / 2006, whose primary purpose is to compensate generators for generation asset availability in line with the characteristics and parameters established to calculate the Firm Energy to be purchased at the Reliability Charge Rate (ENFICC, for the Spanish original). For the 2014-2015 period, Firm Energy Obligations (OEF, for the Spanish original) for generation plants were allocated through auctions of Firm Energy and Generators with Greater Planning Periods (GPPS, for the Spanish original) carried out in May and July 2008, respectively.



 Reliability Charge revenue results are included in spot market transactions when generation is greater than or equal to the OEF of each power plant. Below are the revenue and refunds from 2015, followed by the corresponding values for 2014:

	2014	2015	Difference 2015-2014	Growth 2015-2014
	Millions of \$	Millions of \$	Millions of \$	%
Revenue	1,712.02	-	-1,712.02	-100.00
Refunds	94,886.66	159,613.46	64,726.80	68.21
Net	-93,174.64	-159,613.46	-66,438.82	71.31

In turn, we trade ENFICC backups among generators on the Secondary Firm Energy Market, in order to fulfill the OEF allocated to each agent. We received revenue for \$22,446.64 million throughout the year through this market.

# Fees for Participating in the Wholesale Energy Market (WEM)

In 2015, the Company's fees for participating in the WEM were 16.25% higher than those recorded in the previous year. The costs for using the National Transmission System (NTS) was the item with the highest increase, explained by the decrease in the energy demand used as the basis for calculation, which had a direct effect on the fee because the calculation is inversely proportional to the demand.

The devaluation of the Colombian peso vs. the US dollar and the subsequent increase in the Producer Price Index (PPI) had a significant impact on other charges associated with this item, such as the use of the Regional Transmission System and the Local Distribution System and the connection fees.

On another note, restrictions showed a considerable increase compared to 2014 due to the impact of El Niño weather conditions on the costs of associated backup generation, particularly in the second half of the year. It is important to point out that in the months of October and November, CREG Resolutions 178 and 195 / 2015 were issued to mitigate the impact of the adverse weather conditions on this fee. The increase in the FAZNI was associated with the increased generation in 2015 compared to 2014 and the annual adjustment made to this fee based on the PPI.

	2014	2015	Difference 2015-2014	Growth 2015-2014
	Millions of \$	Millions of \$	Millions of \$	%
NTS Use	81,617.02	90,567.75	8,950.72	10.97
RTS, LDS Use	103,822.31	112,224.25	8,401.95	8.09
Restrictions	17,762.69	25,776.33	8,013.64	45.12
NTS Connection	12,627.39	14,586.94	1,959.55	15.52
Management services	9,512.78	13,294.28	3,781.50	39.75
Law 99/93 Contributions	39,731.67	50,185.42	10,453.75	26.31
FAZNI Contributions	12,095.88	15,564.19	3,468.31	28.67
Total WEM fees	277,169.74	322,199.16	45,029.42	16.25

### **Fuel operations**

• In 2015, we procured the fuel supply for the Termocentro Power Plant in order to cover the low levels of hydroelectric generation starting in the second half of the year. Based on the above, the power plant generated 1,942.47 GWh/year, down 5% from the energy produced in 2014. In turn, gas purchases to back this generation were around 16,893 GBTU.

- Take or Pay Gas Supply Contracts were signed with ECOPETROL to back 50% of the Firm Energy Obligations of the Termocentro Power Plant for 23,250 MBTUD up to the year 2019.
- O As a result of steps taken bilaterally with suppliers, in the 2015 sales process and in monthly auctions, we procured the firm and interruptible supply to maintain the generation of the Termocentro Power Plant with natural gas from the Cusiana/Cupiagua and Guajira fields in 2016 at 50% of their capacity.
- O Given the El Niño weather conditions, there was a shortage in the electricity market in the last quarter of 2015. In this situation, the Ministry of Mines and Energy issued MME Resolution 41301 / November 30, 2015 in which it established measures for the natural gas supply to meet the demand of the industrial sector in the departments of Atlántico and Bolívar and the thermal power generation with natural gas. This regulation placed the agents at competition over the natural gas available.
- As of December 1, 2015, following authorization by the CREG, we switched from JetA1 fuel to diesel fuel.

- We secured the incorporation of diesel fuel in the logistics of the Termocentro Power Plant to back 50% of the Firm Energy Obligations as of December 1, 2015 with a storage of 96 KBIs of fuel.
- With the new diesel fuel logistics, we recovered 67% of the value of the JetA1 fuel inventory and saved on fixed costs for the storage of 40 KBIs of fuel per year.
- Regarding sales through bilateral contracts, we traded 445,822 MBTU, up 270% from 2014, primarily due to the increased use of the fuel available for the generation of the Termocentro Power Plant. Revenue from natural gas sales was \$12,759.04 million, up 349.53% compared to last year.

# Revenue from Natural Gas Sales



2014	2015	Difference 2015-2014	Growth 2015-2014
Millions of \$	Millions of \$	Millions of \$	%
2,144.40	12,094.79	9,950.39	464.02
693.90	664.25	-29.65	-4.27
2,838.30	12,759.04	9,920.74	349.53
	Millions of \$ 2,144.40 693.90	Millions of \$ Millions of \$  2,144.40	2014     2015     2015-2014       Millions of \$     Millions of \$       2,144.40     12,094.79     9,950.39       693.90     664.25     -29.65

# Expenditures for Natural Gas Sales



In 2015, expenditures for gas transport and supply purchases for sale amounted to \$7,825.67 million. This figure was 80.86% higher than the previous year.

	2014	2015	Difference 2015-2014	Growth 2015-2014
	Millions of \$	Millions of \$	Millions of \$	%
Expenditures for supply purchases	1,734.89	6,666.90	4,932.01	284.28
Expenditures for transportation, distribution and development quota purchases	2,592.15	1,158.77	-1,433.38	-55.30
Total Expenditures	4,327.04	7,825.67	3,498.64	80.86

# REGULATION AND MARKET MANAGEMENT



We participated in activities related to the regulation of the energy and gas industry, issued during the year by regulatory agencies such as the Energy and Gas Regulatory Commission (CREG) and the Ministry of Mines and Energy (MME), with the Superintendence of Residential Public Utilities (SSPD) as an oversight and regulatory authority and some of the sectoral bodies of which we are a part. This allowed us to conduct an analysis and make comments and recommendations that led us not only to the application of this regulation, but also to the support and knowledge of end industrial clients on topics that affected the sector. This is how we contributed to regulatory management with a focus on finding alternatives to promote the sustainability of the energy market and foster competitiveness in the Colombian productive sector.

Based on the "Primer on the application of the rules of competition for associations of companies and professional associations or schools" issued by the Superintendence of Industry and Commerce, we reviewed the important elements to be taken into account when participating in associations or guilds.

# **Electricity Sector Regulatory Changes**



O Energy and Gas Regulatory Commission: in order to continue with the regulation of Law 1715 / 2014, for the use of alternative energy sources and promote the efficient management thereof, the CREG regulated the activity of large scale self-generators in the National Electric Grid (SIN, for the Spanish original) and determined that selfgenerators are entitled to use the assets employed for distribution and/ or transmission to deliver excess energy for backup purposes.

In addition, the Commission regulated the Demand Response (DR) program for the day-ahead market when the Spot Market Price exceeds the Scarcity Price, at which time the product of the program will be the lower energy demand volume. Also, the CREG changed the way minor plants participate in the reliability charge through rules that are expected to be finalized in 2016, among which it is important to mention the different treatment for plants with an effective capacity of less than 5 MW and those with capacities between 5 MW and 20 MW.

The issue of the corresponding regulations related to the announcement of an Organized Regulated Market (MOR, for the Spanish original) auction is pending, along with contract information to make the market more transparent, the approval of income with the new methodology for the National Transmission System and the Regional Transmission System, including Distributed Generation as an adjustment related to the issue of Law 1715 / 2014. Due to the importance of these topics, they are expected to be regulated in 2016.

O Wholesale Energy Market: the Commission allowed the agents currently in a weekly payment system of guarantees, to present not only weekly prepayments, but also bank guarantees, letters of credit or other document-backed guarantees similar to the monthly guarantee system. In addition, the unit cost of restrictions that can be transferred to the demand was limited, regardless of the additional cost established to compensate the thermal power plants generating with liquid fuel during the critical condition, which is also transferred to the demand based on the concept of restrictions.

O Thermal power generation: a series of regulations were issued, through which the excess capacity of minor plants could be negotiated temporarily, in an effort to increase availability during the dry season; this made these connections, co-generators and self-generators to the National Electric Grid more flexible. Also, a maximum price was defined for the daily dispatch prices offered, hydroelectric power generators were allowed to offer an amount of energy used to regulate the level of their reservoirs, and the calculation of the Negative Reconciliation Price<sup>15</sup>, was modified, treating hydroelectric and thermal power plants separately.

# Regulatory Changes in the Natural Gas Sector



In order to deal with the thermal power generation crisis, the CREG made adjustments to the natural gas sector by updating the information of gas producers to increase the offer, and made sale and terms more flexible. In addition, the Ministry of Mines and Energy established measures for the supply of natural gas to meet the unmet demand of the industrial sector in Atlántico and Bolívar and that of thermal power generation with natural gas.

<sup>15.</sup> As set forth in CREG Resolution 063 / 2000, Negative Reconciliation Costs are those associated with generation transferred on the real dispatch by Backup Generation or Re-dispatches.

In 2015, the regulatory body made changes in the gas contract indexing mechanisms set forth in CREG Resolution 089 / 2013, which had a significant impact on the prices of contracts signed before, and later defined a new system to update prices for long-term supply contracts of the primary natural gas market, thus encouraging the bilateral negotiation of the indexing mechanism and establishing what to do in the cases where there is no agreement between the buyer and the seller.

Furthermore, additional provisions were established with regard to the imbalances and variations in output on the National Transport System, and general criteria were issued to govern the coverage mechanisms in long term auctions under the responsibility of the Market Manager, along with the types of guarantees and processes to be covered.

When the market manager began operating in 2015 and with the CREG's definition of the mechanism to be applied for natural gas sales on the primary market, we managed to procure the fuel supply for the Termocentro Power Plant by participating in the sale process, in the monthly auctions and through bilateral contracts. This favored sales operations through centralized platforms to manage data and carry out transactions on the primary and secondary natural gas market.

# Regulatory changes in international interconnections



The CREG made adjustments to the regulations in Colombia related to the mechanism of International Electricity Trading (TIE, for the Spanish original) by reducing the deviation threshold allowed to activate energy trading, dropping from 8% to 1%. The application of this resolution is meant to invigorate the Colombia-Ecuador link and allow the import of energy from the neighboring country in view of the water shortage in Colombia.

# PRODUCTIVE SOLUTIONS FOR CLIENTS

Our commercial relationship with clients is based on communication, collaboration, responsibility and quality of service to offer energy solutions that contribute to their productivity and sustainability, maintain their preference and loyalty, while contributing to the reduction of their Greenhouse Gas Emissions.

To fulfill this commitment, we have analyzed and developed projections based on information regarding their geographic location, commercial expectations, consumptions and behavior to establish trends, engagement strategies and personalized assistance for the long term with high levels of satisfaction.

The provision of technical services was an opportunity to create the Technology Partner Network in a governance framework that includes a Steering Committee, an Ethics Committee, and the Regional Commercial Committees that are governed by an Ethical Behavior Agreement and the different strategic plans defined by these bodies.



Engineering firms, research centers and universities are part of this network, and they offer a portfolio of solutions related to energy management: maintenance, expansion, efficiency and productive knowledge to optimize processes and contribute to environmental care. In 2015, these activities generated sales for a total of \$11,438.91 million, down 2% from 2014 (\$11,654.45 million).

### Technical service billing

Item	2014	2015	Difference 2015 -2014	Growth 2015-2014
	Millions of \$	Millions of \$	Millions of \$	%
Service Invoicing	8,414.42	8,311.47	-102.95	-1.22%
Agency agreements	0	0	0	0%
Invoiced by Partners (*)	2,965.40	2,916.30	-49.10	-1.66%
Service Commission	274.63	211.14	-63.49	-23.12%
Network Services Totals	11,654.45	11,438.91	-215.54	-1.85%

Assessment of clients regarding technical services: we conducted an assessment of the technical services provided by each Technology Partner, showing a level of satisfaction of 4.92 on a scale of one to 5 points. This assessment considers the staff responsible for providing the service and their expertise, the personal protection equipment, use of proper tools and equipment and compliance with safety standards, among other topics. Below are the results for the last three years:

#### **Evaluation of the technical services by clients**



For further details on the technical services, click here.

In addition, as a service backup strategy, we are constantly in touch with Network Operators to raise awareness regarding the proper maintenance of assets and to establish service level agreements.

### Services

service is provided to our clients at three levels:

#### 1. Basic Service

We supply our clients with electricity and natural gas, as well as a service associated with the sale thereof, which includes the administrative and technical management of the supply contract. In addition, we provide assistance in the development of these supply contracts with 24/7 emergency management with the participation of Technology Partners, who offer technical support in the event of failures in internal facilities or the energy supply from the Network Operator networks. We believe in and work for the quality, reliability and security of the energy supply.

In 2015, 4,083 technical assistance visits were made, 31.12% of which were related to emergency response.

#### 2. Complementary Services

As part of our value proposition to offer productive solutions, above and beyond electricity and natural gas solutions, we provide our customers a portfolio with four lines of complementary energy management services: maintenance, expansion, efficiency and productive know-how. We provide assistance in consumption management, consultancy and operation in the measurement thereof, and act as clients' representatives with other agents of the chain.

 Maintenance services: aimed at ensuring the optimal operation of the production processes.

- Expansion projects: we offer assistance for clients that need to expand their production facilities or processes.
- Productive knowledge: we capitalize on and provide clients with success cases and lessons learned related to addressing the industry's needs.
- Efficiency: we assist our clients in optimizing their energy basket and in the implementation of Comprehensive Energy Management (CEM) strategies.

A total of 1,031 services were provided, up 0.03% compared to last year, 505 (48.98%) of which were handled via e-trade through the PRE-APPROVED commercial engagement strategy.

#### 3. Comprehensive Energy Management (CEM)

Environmental sustainability and an increased productivity are the two macro-objectives of Comprehensive Energy Management (CEM). To fulfill these objectives, a series of technical services and soft technologies are integrated, and when executed systemically, they generate an increase in productivity, a decrease in energy and water consumption and greenhouse gas emissions, and the diversification of the organizations' energy matrix. Below are the different phases and their advances in 2015, demonstrating compliance with and overcoming of the challenges defined since 2014:

- O Phase 0. Energy characterization of the organization: quantifies the potential savings goals in the consumption of electricity, thermal power, CO2 emissions and the increase in productivity. In 2015, 22 new clients that carried out this quantification became part of the CEM.
- O Phase 1. Organizational alignment: is intended to incorporate the structure, roles and competencies of the participants, objectives and energy goals, monitoring systems and the control of management and operational indicators of energy performance, among other aspects. In 2015, we completed this process with 10 clients of the internal organization for the purpose of energy efficiency.

- O Phase 2. Comprehensive diagnoses: structure the syllabus to be developed for improving the null, low, medium and high investments identified in the monitoring and control of the performance indicators in Phase 1. We carried out this phase at a total of 20 industrial plants.
- O Phase 3. Operational efficiency: implements the projects for the efficient use of energy and/or distributed generation. In 2015, we managed the implementation of 20 low and/or medium investment energy solutions, identified 12 high investment projects related to energy efficiency and operational improvement, and structured and implemented two solar energy generation projects.
- O Phase 4. Management and control: the objective at this stage is to close the continuous improvement cycle of energy. To this effect, we designed the methodological details of Phase 4 in 2015, which was tested with two clients.

Regarding the clients that are not part of the CEM strategy yet, we have been providing support for the implementation of maintenance activities and technological changes that contribute to the operational efficiency of their production processes, as well as the adoption of good energy management practices.

The total investment in the Comprehensive Energy Management strategy was \$922,530,000 in 2015, up 6% from 2014 (\$869,160,205).

#### Number of clients for each of the phases of CEM (2011 - 2015)

Phase 0	Energy characterization	92
Phase 1	Organizational alignment	49
Phase 2	Comprehensive diagnoses	20
Phase 3	Operational efficiency	13
Phase 4	Management and control	5

The clients enrolled since the second half of 2011 reported the following accomplishments in consolidating an Energy Management System:

- They quantified the potential for increased productivity levels and reduction of CO2 emissions and implemented improvements.
- They established verifiable goals using monitoring and control methodology.
- They directed and created improvement teams to foster the corporate culture through the rational and efficient use of energy.
- They implemented energy performance control systems by cost center on the global level, in addition to the technological measures of energy efficiency.
- They increased technical competencies in energy management.

#### **Summary of Potential Results of Companies Enrolled in CEM, 2011 - 2015)**

Reduction in the consumption of electricity (GWh/year)	120.48
Reduction the consumption of thermal energy (m³ Natural Gas x 1,000)/year	11,692,950
Reduction of GHG Emissions <sup>16</sup> (Ton CO <sub>2</sub> /year)	27,706
Increase in productivity (%)	2.1 - 17.8

This is the result of establishing energy consumption goals and baselines based on the historical variability of production, the use of emission factors according to the primary source studied and the quantification of the increase in production, considering the estimated target decrease in energy consumption after standardizing best production practices.

The initiatives identified in the CEM strategy are eight on site generation projects using agricultural waste (8 MW), 79 cogeneration projects (160 MW), 87 solar power generation projects (95 MW), 140 micro-generation projects using natural gas (155 MW) and 12 projects to capture methane from urban solid waste (65 MW), which represent an annual generation of approximately 2,700,000 MWh/year.

# Energy of being a Custumer



#### Israel **Medrano**

Engineering and Energy Manager

Gerdau Diaco

"ISAGEN has been our ally for almost a decade. We have benefited from its assistance in the implementation of the CEM program, which has allowed us to reduce energy consumption at peak hours by 16.5% since the program started two years ago at one of our plants. Saving is equivalent to saving seventy million pesos every month". It is important to highlight cases such as those of Argos Colombia, Panama and Haiti, which include both the component of the energy management system as well as that of technological change; the implementation of two solar power projects in Kimberly Zona Franca and Colpapeles; the adaptation of the hydroelectric power plant at Harinera del Valle; the outfitting of the natural gas networks, studies on charging-lighting-electric motors, assessment and standardization of energy variables at Diaco; and projects for lighting and efficient engines with several clients.

Click here to learn more about:

- Management to measure and reduce GHG emissions in the business
- Comprehensive Energy Management (CEM) Pilot at the electric power plants

### Responsibility of the Service

We carried out activities with our clients to strengthen cooperative relationships, share practices and mobilize management, as well as operational skills aimed at the efficient use of energy and natural resources, through the development of the following training sessions in 2015:

#### **Client training in 2015**

Subject	Man hours
Use of statistical tools for energy control	1,090
Energy audits	600
Renewable energy	132
Energy Management Systems - ISO 50001	672
Ecological footprint	225
Environmental sustainability	176
Total man hours	2,895

On another note, when providing services at our client facilities, we are responsible for identifying potential risks in electrical security, and with them we define actions to deal with these risks. Through the Technology Partner Network, we take steps that have an impact on occupational safety by providing the different technical services included in the portfolio. It is important to point out that a one-day training session was carried out on occupational safety and health to strengthen skills on this subject in the network. The session was attended by 37 people belonging to 21 of 30 Technology Partners (70%).

The occupational safety and health variable is taken into consideration in 100% of the services. Due to the characteristics of the service we offer and the clients we serve, we have found no cultural, literacy or disability barriers that affect access to the safety service.

In 2015, there were no incidents due to the failure to comply with the rules, regulations or voluntary codes related to the provision of the service or any impact on health and safety. No deaths or injuries of service users were reported either. One minor incident was reported involving a subcontractor due to its failure to comply with safety protocols, the incident was treated based on the analysis conducted by the Technology Partner Network's Ethics Committee and the internal analysis was carried out by the Service Chain team, whereby the corresponding corrective measures were applied.



### Service quality and reliability

In our quest to improve the electricity supply in terms of stability, quality and reliability, we have strengthened relations with all the players of the energy supply chain and in raising their awareness on the importance of having constant energy supply for the productivity and competitiveness of national industry.

In 2015, we received a total of 1,269 client complaints regarding service interruptions and voltage fluctuations (related to the service of Network Operators<sup>17</sup>), 80 requests and 4 claims. We would like to share with you the following achievements:

- We made progress in strengthening long-term relations with Network Operators to increase the quality of the energy supply by improving infrastructure and operation, as well as in dealing with events on the network.
- We made service level agreements with the Network Operators that have the most impact on our clients.
- We trained our clients and delivered information on the technical services provided. In addition, we visited their plants on a periodic basis, supporting them in identifying potential productive

<sup>17.</sup> Network Operators are the owners of the electric grid that distributes energy to our clients.

- improvements, and we built turnkey solutions together with the Technology Partner Network to meet their needs.
- We supported our clients in attaining quicker, better quality responses from the Network Operators by arranging for meetings between them.
- We reviewed, together with the Network Operators, the metering point systems that we represent in order to ensure accuracy in recording consumption, thereby contributing to reduced losses in the national electricity system.
- O We fostered in our clients a sense of respect for the electric distribution grid, helping them to adapt their facilities to ensure they are in compliance with the regulations in force, and their rights and obligations as active agents of the sector.

### Information Management

We deliver truthful, timely information to our clients on the services we provide, the status of the service, changes in regulations and other regulatory topics of interest and the way to apply them. Our communication with clients includes a plan and corporate mechanisms, such as the Línea Viva magazine and an exclusive section for them on the website, an interactive space for the comprehensive management of the supply contract and online purchases. Also, we disseminate information on alternative energy, climate change, the company's growth strategy and management practices. Throughout the year, we carried out a pilot with 10 clients to view their energy consumptions online.

We fully complied with the provisions of the Personal Data Protection Law, Law 1581 / 2012, and Decree 1377 / 2013, as well as other regulations that modify or add to them, thereby complying with the established obligations and procedures. In addition, all our employees that work with clients are duly instructed in data security. In 2015, we did not detect any leaks, theft or loss of internal or external data. We received no claims regarding penalties or fines in relation to regulations or voluntary codes in communications and marketing, such as advertising, promotions and sponsorship.

Learn more about the dialog and communication mechanisms with our stakeholders here.

### Satisfaction Survey

We conducted various assessments with our clients by means of telephone and written surveys that analyze different variables of our service promise. They include the satisfaction surveys on the technical services provided and client program and assistance surveys, which were administered by an external form specializing in telemarketing studies. Furthermore, the evaluations of training and emergency response are applied on clients through written surveys administered following events.



A slight decrease of 1% on the general satisfaction survey compared to the previous year is mainly due to the lower scores on the evaluations of training events, whose average dropped from 4.82 in 2014 to 4.44 in 2015. Consequently, for the planning of this type of activities in 2016, the aspects evaluated with the lowest scores were taken into account, with a view to improving their results on future occasions.



## 2016 CHALLENGES

- Responsibly use the generation resources available while the weather conditions of El Niño ripen and replace the possible operation of 50% of Termocentro with liquid fuel in the first half of 2016.
- O Explore new business opportunities based on energy solutions, such as consulting and primary or secondary energy, for instance, in areas of distributed generation.
- Implement the Comprehensive Energy Management as a platform to identify and promote energy business opportunities of interest to ISAGEN.
- Extend the energy management practices to all end industrial clients, which will be trained in the energy performance control methodology.
- Strengthen and incorporate key aspects, such as efficient water management, and generate onsite mechanisms that will offset the carbon footprint of end industrial clients.
- O Allow clients to view their energy consumption online.



# CONTENTS

Growth strategy

Projects under study

Exploring new business

2016 Challenges



### Luis Fernando **Londoño**

Manager Energy Sales

"Our growth plans intend to provide a better response to our clients' comprehensive needs, energy market trends, our shareholders' growth expectations and, in particular, our higher purpose aimed at generating smart energy to contribute to the prosperity of society and protecting the planet".



#### Adolfo Fehrmann

Manager Generation Projects

"Power generation projects using renewable sources such as water, wind and geothermal energy are a top priority, and we are always committed to contributing to the improvement of living conditions of the communities and the proper management of natural resources".



### **2015 MILESTONES**

- We won the National Engineering Award, the highest distinction of the Colombian Society of Engineers for our management in the 820 MW Sogamoso hydroelectric power plant construction project.
- We redefined our focal point of growth for the next 10 years, based on an integrated, smart energy supply.
- Portfolio of renewable energy projects and studies amounting to a capacity of 7,500 MW.
- \$18,687 million in hydroelectric, wind and geothermal project studies.
- Advances in researching other alternative energy sources such as the coal-fired gasification and biodiesel.

The commercial start-up of the Amoyá River-La Esperanza Hydroelectric Power Plant (80 MW) in 2013, and the Sogamoso Hydroelectric Power Plant (820 MW) in 2014, completed our expansion plan. The inclusion of these projects involved major technical, environmental and social challenges that we have faced with discipline and commitment.

We won the National Engineering Award, the highest distinction of the Colombian Society of Engineers for our management in the Sogamoso hydroelectric power plant construction project, which not only met the deadline with the market and the scope initially planned, but also complied with the approved budget. The Sogamoso hydroelectric power plant was inaugurated in January 2015 by ISAGEN, and it was attended by the Colombian President, national, regional and local authorities, and representatives from the area of influence. We would also like to mention our certification by CIDET indicating that all the facilities this power plant are in compliance with the Regional of Electrical Installations Rules (RETIE, for the Spanish original).

In 2015, we redefined our focal point of growth for the next 10 years, based on an integrated, smart energy supply that will generate value for stakeholders in line with our higher purpose: "By generating smart energy, we contribute to society's prosperity".

In this chapter, we discuss the advances made in hydroelectric, wind, geothermal energy project studies and other new eco-friendly technologies that pushed us to deal with the challenges faced by the energy sector, meet the national demand and contribute to the creation of development opportunities in the different regions. In addition, we present the progress made in the exploration of businesses and opportunities in Latin American markets:

# **GROWTH** STRATEGY

Our growth plans are a response to market trends and challenges, as well as comprehensive energy solutions for clients. To this effect, we have invested in the diversification of the energy and service matrix, focusing efforts on the generation of renewable energy and energy sales, as well as on specialized and value-added technical services through energy-efficient solutions.



# PROJECTS UNDER STUDY

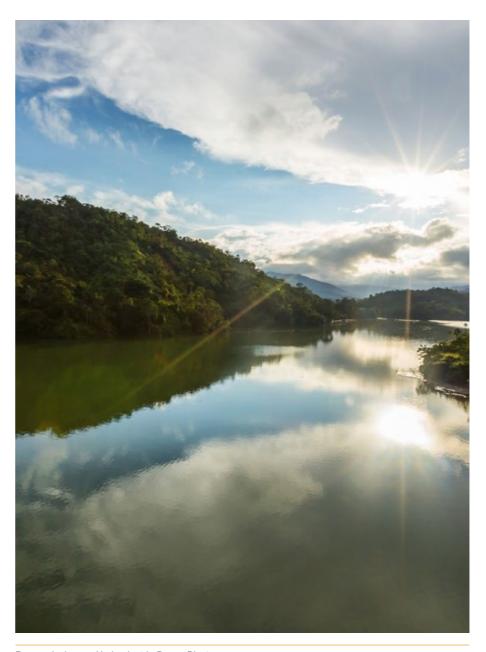
We have a portfolio of generation projects and studies that, at their different stages, amount to more than 7,500 MW of capacity with hydroelectric generation, as well as generation with non-conventional sources such as wind and geothermal energy, which will be used as backups in the future in view of El Niño weather conditions and climate change in general.

The path we have outlined is in line with Law 1715 / 2014, which regulates the integration of non-conventional renewable energy in the national electric grid to promote its development and use, contributing to sustainable economic development, the reduction of greenhouse gas emissions (GHG) and the backup of the energy supply.

### Hydroelectric Plants



Water is our main source of power generation (84.85%) and we have conducted studies that may produce more than 7,000 MW, using the abundance of this resource in the different regions of the country.



Reservoir. Jaguas Hydroelectric Power Plant.



## Piedra del Sol Hydroelectric Power Plant Project (156 MW – Fonce River – Santander)



The Piedra del Sol project is located in southeastern Santander, in the jurisdiction of the municipalities of San Gil, Pinchote, Socorro and Cabrera. It is being carried out in alliance with HMV Ingenieros, and it is in the pre-construction phase.

Learn more about the Piedra del Sol Hydroelectric Power Plant Project here.

It consists of a run-of-river<sup>18</sup> hydroelectric power plant with three generation units. It will have an installed capacity of 156 MW and an average annual generation of 995 GWh/year, which is equivalent to the energy required to meet the demand of approximately 380,000 Colombians.

In 2015, we achieved a progress of more than 95% in the detail designs, pending several complementary explorations in the field, which we will carry out once we have the environmental license. Finally, we made the adjustments necessary to the design based on the field information.

In the framework of the environmental licensing process in December 2015, we carried out the Public Environmental Hearing after an informative meeting, addressing the requests of three non-governmental organizations.

18. The run-of-river power plant does not have a water reserve or reservoir, but rather runs on the flow of a river's waters. In the case of the Piedra del Sol project, it is the Fonce River.



#### Cañafisto Hydroelectric Power Plant (937 MW - Cauca River - Antioquia)



The Cañafisto project is located in the middle of the Cauca River Valley in the Department of Antioquia, and its area of influence<sup>19</sup> extends to 16 municipalities. The hydroelectric power plant includes five generation units, one 100 meter-high dam and a surface powerhouse for an installed capacity of 937 MW.

In 2015, we carried on with the pre-construction stage, creating the detail designs of the project, as well as assessing the risks during the construction of the power plant.

The tender designs, prepared with sufficient level of detail to carry out the procurement, were suspended in November when the National Authority of Environmental Licenses (ANLA, for the Spanish original) issued Resolution 1291 / October 13, 2015 "by which an environmental license is denied and other determinations were made." Among the grounds mentioned by the ANLA, it expressed concern regarding the influence of waterfall data for the years 2010 and 2011 on the calculation of rises, sediment and construction designs, the impacts and management measures on the tropical dry forest ecosystem, and the cumulative impacts caused by the Ituango Hydroelectric Power Plant Project, among others. We filed the corresponding appeal for reversal within the term to do so, providing clarifications for the concerns put forward by the ANLA and we are currently awaiting response from the environmental authority.

 Municipalities: Santa Fe de Antioquia, Olaya, Sopetrán, Ebéjico, Anzá, Betulia, Armenia Mantequilla, Concordia, Fredonia, Jericó, Tarso, Salgar, Támesis, Titiribí, La Pintada and Venecia.



## Harnessing Hydroelectricity of the Patía River (1,650 MW - Cauca and Nariño)



This consists of four plants in series to harness the hydroelectric power of the river between a descent from 560 to 75 meters above sea level. Pre-feasibility studies and the Environmental Assessment of Alternatives (EAA) are currently being conducted for the first projects of the Patía I and II chain.

In 2015, we had continued our relations with the communities and municipal authorities in the area of influence of the projects<sup>20</sup>. Through dialog with the community councils, we addressed the difficulties faced for their acceptance by the ethnic minorities.

We created a map of the area and moved forward in collecting primary information to complement the EAA. In addition, we began a joint effort with National Parks (PNN, for the Spanish original), Corponariño and the Regional Autonomous Corporation of Cauca (CRC, for the Spanish original) to attune the development of the project with the interest in conserving strategic ecosystems, such as the dry forest of Patía.

20. Municipalities: Linares, El Peñol, Taminango, Los Andes (Sotomayor), Cumbitara, Policarpa, El Rosario and Leiva in the department of Nariño and Mercaderes, Bolívar, Balboa and Patía (El Bordo) in the department of Cauca.

#### Palagua Hydroelectric Power Plant (98 MW – Samaná Norte River – Antioquia)

This project is located 3 km downstream from the outlet of the San Carlos Hydroelectric Power Plant (1,240 MW) in the jurisdiction of the municipalities of San Carlos and Puerto Nare.

The hydroelectric power plant includes a concrete 38 meter-high dam, and a powerhouse with two generation unit amounting to 98 MW, based on a run-of-river system (no reservoir) utilizing that provided by the Nare-Guatapé chain. One of the main advantages is the possibility of operation through the San Carlos Hydroelectric Power Plant, which will optimize operating costs.

In 2015, we completed the Technical and Economic Feasibility studies of the project. In addition, in November that year, the Regional Autonomous Corporation of the Negro and Nare River Basins (CORNARE) concluded that the project did not require the Environmental Assessment of Alternatives (EAA) because it has only one option of hydroelectric development, which is in favorable technical and environmental conditions. We have to submit the Environmental Impact Assessment (EIA) to carry on with the environmental licensing process.

# Studies to Identify New Opportunities (5,900 MW in Colombia)

We continued to carry out the studies to identify and assess hydroelectric projects in Colombia that could increase capacity by more than 5,500 MW in medium and large scale projects and by about 400 MW in power plants with capacities less than 100 MW.

We performed the activities scheduled in the framework of the alliance signed in 2013 with Italian firm, Sorgent.e for the assessment of Small Hydropower Plants (SHPs), determine their technical, environmental and

financial viability and, by mutual agreement, decide on the structure of the investment to be made.

In 2015, we moved forward with the pre-feasibility studies of several projects, as well as in the procurement and execution of the feasibility study and EAA of one of them..

### Andaquí Hydroelectric Plant (687 MW - Caquetá River - Cauca and Putumayo)

The power plant would harness water from the Caquetá River, upstream from the mouth of the Mocoa River. It consists of regulating the river flow through a reservoir created by a 206 meter-high dam and generating energy in an underground powerhouse with three generation units.

Due to the creation of the Serranía de los Churumbelos National Park and since part of the project reservoir is located in the park, the current arrangement must be reviewed. This means assessing alternatives to carry out the project in line with the conservation of sensitive ecosystems.

# Hydroelectric Projects in Peru (20 MW - Peru)

In alliance with HMV Ingenieros, we have continued our relations with the communities and authorities in the area of influence of a small hydroelectric power plant (20 MW) located in the department of Ayacucho, which is currently in the feasibility stage and has an environmental license.

On another note, we decided not to carry on with the studies of three inseries projects (200 MW), as there are other firms that are applying for concessions for the resource in this watershed.



### Wind and geothermal energy projects

For about a decade, we have been conducting studies related to the development and use of non-conventional renewable energy for the generation of electricity, such as wind, which uses air currents or wind, and geothermal, which uses the earth's internal heat.

#### Guajira I Wind Farm Project (20 MW - La Guajira)

The Guajira I Wind Farm project, which is in the pre-construction stage, is located in the township of Cabo de La Vela, municipality of Uribia in the department of La Guajira. In 2015, we managed to amend the project's environmental license through CORPOGUAJIRA, which includes the updated design, and we continued our relations with the three communities present in the project's area of influence.

In addition, we prepared the documentation to carry out the process for the procurement of detail design, supply, construction, assembly, preparation, operation and maintenance of the project. Different financial scenarios were examined to verify the impact of the current regulatory and economic conditions on financial performance. Moreover, we moved forward in the steps related to the connection of this project with the National Electric Grid (SIN).





#### Guajira II Wind Farm Project (376 MW - La Guajira)



This project is currently in the feasibility stage. It is located north of the municipal center of Maicao in the department of La Guajira, on the border with Venezuela. We were exempted from the EAA by the ANLA, which also provides us with terms of reference to carry out the Environmental Impact Assessment (EIA). With the Ministry of the Interior, we also started the process of prior consultation<sup>21</sup> with the communities living in the area of influence.

#### Wind Potential Studies

We continued to conduct studies on the wind power potential in different regions of the country. In 2015, we installed a new measurement tower in the department of La Guajira and moved forward in our relations with the communities near the wind measurement towers installed. It is important to mention the meeting to follow up on the agreements made in the prior consultation, which was formalized with the Julinsirru community on February 15, 2013. This activity was attended by the Ministry of the Interior, the Ombudsman's Office and members of the indigenous communities in the project's area of influence.

We also began to carry out the activities for the pre-feasibility studies of two new wind farms in this department. In addition, we carried out maintenance on the wind measurement towers and updated the measurement equipment, which provided us with operational efficiency indicators greater than 95%. We also consolidated the Wind Information System (SIE, for the Spanish original), which provides us with information on the measurements in real time, to ensure the quality and reliability of the information, and to take timely action in the event of a development with the towers and the equipment installed. Finally, we began to identify new areas with wind power potential.

<sup>21.</sup> Prior consultation is the fundamental right of the indigenous communities and other ethnic groups to participate when projects, construction works or other activities will be executed in their territories. This is in an effort to protect their cultural, social and economic integrity.

# Energy of being a **Supplier**



#### Beatriz **Hernández**

Director of Environmental Studies and Management

**INTEGRAL S.A.** 

"With ISAGEN, we have received a contribution in terms of engineering, knowledge in new technologies, and lessons in demystifying volcanoes as just a threat, and seeing them rather as a clean energy source with less environmental impact. This is a resource that we are delving into in Colombia for the first time, thus generating benefits for communities".



# Ruiz Volcanic Massif Geothermal Power Plant Project (50 MW - Caldas)

This project is currently in the feasibility stage. It is located in the municipality of Villamaría in the department of Caldas. In 2015, the ANLA sent the application for the environmental license of the project to CORPOCALDAS, and we prepared and submitted the complement of the Environmental Impact Assessment (EIA) to the competent authority for inclusion in the resource utilization phase. In addition, we moved forward in the agreement with the Escuela de Ingeniería de Antioquia to conduct the Hydroclimatological studies of the watershed and we installed a weather station at the site of the initiative. Finally, in 2015, we continued to carry out the financial structuring process.





# Tufiño-Chiles-Cerro Negro Binational Geothermal Power Plant Project (Colombia-Ecuador border)



This project, which is currently in the pre-feasibility stage, is being promoted by the governments of Ecuador and Colombia in the border area. It is located south of the municipality of Cumbal, in the department of Nariño (Colombia) and north of Tulcán, in Carchi Province (Ecuador). In 2015, the effect of the binational agreement was extended for an additional three-year period and we continued to carry out the studies as part of the agreement with Corporación Eléctrica del Ecuador (CELEC).

In 2015, the basic hydrogeology studies were completed and we made significant progress in the laboratory tests and analysis of geological and geochemical samples, which provided a preliminary conceptual geothermal model. The geoscience studies could not be completed on the Colombian side of the area of interest because the Chiles community did not give permission to do so. To this effect, and at the request of said community, we will carry out the prior consultation process in 2016 based on the guidelines of the Ministry of the Interior for the exploration campaign.

#### Investment

In 2015, we invested \$18,687 million in the different study and preconstruction stages of the hydroelectric, wind and geothermal power generation projects. Below are the figures for the last three years:

### Investment for the projects in the study and pre-construction stages (2013-2015)

Desired	Investment in COP million		
Project	2013	2014	2015
Hydroelectric Plants	11,103	9,541	15,361
Wind Farm	677	94	122
Wind Potential Study	317	726	998
Ruiz Volcanic Massif Geothermal Plant Project	681	518	1,436
Tufiño - Chiles - Cerro Negro Binational Geothermal Power Plant Project	352	1,850	770
Total	13,130	12,729	18,687

The increase of nearly 47% in investments in 2015 compared to 2014 was mainly due to the technical and environmental studies of the Cañafisto Hydroelectric Power Plant Project.

In the development of the renewable energy portfolio, we identified complex management aspects, which in turn are an incentive to find opportunities and alternatives:

 The devaluation of the Colombian peso versus the US dollar, which increases the costs of importing equipment for the research and development of renewable energy projects.

- The current regulations, which are still incipient, for the complementary development of hydroelectric, wind, geothermal and solar power generation sources.
- O Long, complex environmental licensing processes.
- In the relations processes with the communities in the areas of influence, there are multiple cultural and historical aspects that pose a challenge in the interaction in different areas.

# Studies on Non-Conventional Renewable Energy Sources

#### **Biodiesel**

In an agreement with the Jardín Botánico Joaquín Antonio Uribe de Medellín, we continued research for the production of biodiesel using the oil from two species of wild oilseeds<sup>22</sup> with promising results. In 2015, we moved forward in the assessment of behavior prior to the domestication of the two species under study, and we added an experimental lot to the two lots we had in 2014.

#### **Coal Gasification**

The coal gasification project is being carried out in an agreement with Universidad Nacional (Medellín campus), Universidad Pontificia Bolivariana and Universidad de Antioquia. In 2015, we scheduled and carried out an extended testing campaign to standardize the high-pressure gasification process. In addition, we obtained the parameters for the scaling and design of the pilot plant through modeling.

#### Solar Energy

We began the Technical and Scientific Cooperation Agreement signed with Universidad de los Andes, to carry out research activities that will contribute to the development of new models for the use of non-conventional renewable energy sources, such as solar power. These activities also cover wind and geothermal power in the country.

Learn more about generation with renewable energy sources:

Renewable energy to benefit our plant





Photovoltaic cells at ISAGEN's headquarters in Medellín.

# EXPLORING NEW BUSINESS

In 2015, the New Business Department was created, with the mission of establishing and achieving a portfolio of new business, to leverage and boost ISAGEN's competencies and create value for the Company, based on the following four focal points defined in the growth strategy: generation of renewable energy, energy sales and distribution, as well as value-added services through energy-efficient solutions and specialized technical services.

Therefore, we have continued to monitor the Latin American markets to identify potential growth opportunities in order to diversify risks and broaden our perspectives. With our client portfolio, we are looking to evolve as a Company to keep ourselves at the forefront of topics that are relevant to the sector and society, such as: energy efficiency and the development of renewable energy, among others.

In 2015, we took part in competitive, bilateral processes for the acquisition of generation assets in operation and/or development. We carried out specific prospecting in countries such as Chile, Guatemala and Mexico, while we worked on defining new vehicles of investment and leveraging to facilitate investments in assets outside Colombia.



# 2016 CHALLENGES

- O Continue taking steps for the environmental licensing of the Cañafisto, Piedra del Sol, Palagua, Guajira II Wind Park and Ruiz Volcanic Massif projects.
- O Complete the prior consultation process with the communities located in the areas of influence of the Guajira II Wind Park Project and the Tufiño-Chiles-Cerro Negro Binational Geothermal Power Plant Project.
- O Continue to conduct the studies for the identification and assessment of hydroelectric projects in Colombia.
- O Continue research in non-conventional energy, such as coal gasification, biodiesel and solar power.



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2016 Challenges



Juan Fernando **Vásquez**Chief Financial Officer

"Financial management is backed by good business management practices. We handle accounting information based on international standards; we have tools to measure value creation, the administration of the investment opportunity portfolio and financing arrangements, thus ensuring business continuity in balance with economic, environmental and social aspects".



## **2015 MILESTONES**

- \$2.8 trillion in revenue, up 22% over 2014 figures.
- \$937,894 million in operating profit, up 58% over 2014 figures.
- \$1.2 million in EBITDA, up 57% over 2014 figures.
- \$297,382 million in net profit, down 17% from 2014.
- \$590,294.09 million in revenue from energy sales on the spot market, up 127% from the previous year.

Our financial strategy seeks to maximize value for the company and its shareholders. In this sense, financial management concentrates its efforts on responding to their economic expectations, maintaining the financial capability to leverage the investment plan, optimizing adequate capital structure, managing timely compliance with contractual obligations and strengthening relations of trust with shareholders and investors.

This chapter presents the main achievements of 2015:

- We maintained the Company's credit rating at the highest standards.
- We managed the Company's cash flow efficiently, thus ensuring the completion of the Sogamoso Hydroelectric Power Plant Project in economic terms, and fulfilling our commitments in time and guaranteeing the continuity of operations.
- We were recognized as the company with the best internal Tax Team in Latin America according to the International Tax Review. (Premium subscription that offers industry and government professionals, private practices and research with a rich source of information in key tax areas).
- We were the first Company in Colombia to present accounting information according to the International Financial Reporting Standards (IFRS).
- We defined pillars and focal points of growth for the short, medium and long term.

# MACROECONOMIC ENVIRONMENT



2015 was marked by the sharp appreciation of the US dollar along with the drop in prices of raw materials, especially oil. Therefore, the Dollar Index (DXY), the index that measures the behavior of the US currency with regard to the main currencies of the world, went from 90.27 points at the beginning of the year to 98.63 points by the end of the year. This behavior is explained mainly by the lower economic growth perspectives on the global level, especially in emerging countries, such as China, and the opposing monetary policies between the United States (contractive policy, reduction in monetary stimuli) and the European Union (expansive policy: increase in monetary stimuli).

The Colombian peso was not unaffected by the stronger dollar and by decreased liquidity of the North American Central Bank (FED). In 2015, the peso devalued 33.57% against the dollar going from an exchange rate of \$2,377 to \$3,175, and it was cited as one of the most devalued currencies in the world in this time. Along with the dry season caused by El Niño weather conditions, this led the Consumer Price Index (CPI) to end the year 2015 at 6.77%, standing 277 basis points above the mean for the target range set by the Central Bank of Colombia (between 2% and 4%). This situation resulted in an increase in the 4.5% intervention rate at the beginning of the year to 5.75% by the end of 2015.

As regards economic growth, by the third quarter of the year, the GDP had a trend of 3.2%, caused by the business, repair, restaurant and hotel sectors (4.8%); agriculture, cattle farming, forestry and fishing (4.5%); and financial establishments, insurance, company-oriented services and real estate activities (4.3%). In addition to these sectors, electricity, gas and water utilities grew more than average in the third quarter (3.7%).

The fixed income and equity markets were also shaken by the effects of a stronger dollar and the decrease in price of petroleum. The COLCAP fell 23.75% from 1,512.98 points on December 30, 2014 to 1,153.71 points on December 30, 2015.

The macroeconomic situation during 2016 will be difficult for the Colombian economy, because the outlook on the behavior of the price of oil and of some raw materials, such as natural gas, metal (except gold), flour, rice, orange juice and cotton, will be on a downward trend during the year. In addition, the effects of a strong dry season and the high devaluation are aspects that generate uncertainty in the business sector, without ignoring the impacts that may be caused on the country by the new tax reform.



### FINANCIAL RESULTS

2015 was a year of important challenges for the Company. El Niño weather conditions has had effects on our power generation, influenced by the rise in spot market prices and required our Termocentro Power Plant to operate all year. This had a direct impact on the commercial operating costs compared to what was expected, represented mainly by the higher cost of fuel. However, despite these circumstances, operating results beat projections thanks to sales management and the internal optimization of resources.

Below are the main relevant figures and indicators:

### Relevant Figures

	2014	2015	Variation %
Revenue	2,277,246	2,844,022	25
Operating costs & expenses	1,684,971	1,906,128	13
Operating profit	592,275	937,894	58
EBITDA	749,457	1,179,168	57
Profit before taxes	508,454	494,786	-3
Income tax provision	150,055	197,404	32
Net profit	358,399	297,382	-17

IFRS figures in millions of Colombian pesos

Compared to 2014, revenue was up 25%, while operating costs and expenses were higher than last year's by 13%, mainly due to the higher depreciation expenses from the start-up of the Sogamoso Hydroelectric Power Plant in 2014 and all other expenses associated with the operation thereof. However, thanks to the operation of the power plant, we had an Operating Profit of \$937,894 million and an EBITDA of \$1,179,168 million, up 58% and 57% respectively compared to the previous year.

Therefore, operating margins and EBITDA went from 26% and 33% to 33% and 42%, respectively, compared to the results of the previous year.

Net profit was down 17% compared to 2014, affected mainly by the exchange rate differences, given the behavior of the dollar and the accounting of the interest associated with the loan taken for the construction of the Sogamoso Hydroelectric Power Plant. Net margin was 11% down compared to that reported in 2014. In addition to the above, the lower margin is due to the impact of the new surcharge on the CREE tax, whose rate for 2015 was 5%, along with the higher deferred income tax originated by the tax depreciation of the Sogamoso assets, which began in 2015. This depreciation was increased by the application of additional duties, thus giving rise to a deferral of the tax payable, which was reflected in a higher deferred income tax incurred, in compliance with the Company's tax planning strategy.

### Financial Indicators

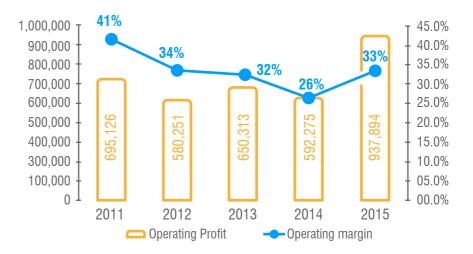


2014	2015
(%)	(%)
7.3	11.2
9.8	8.6
26	33
33	42
16	11
	(%) 7.3 9.8 26 33

The Return on Assets in 2015 was higher than 2014, mainly due to the increase in Operating Profit, explained primarily by the start-up of the Sogamoso Hydroelectric Power Plant. In turn, Return on Equity in 2015 was down compared to 2014 mainly due to the decrease in Net Profit as a result of the increase in financial expenses associated with financing the Sogamoso Hydroelectric Power Plant.

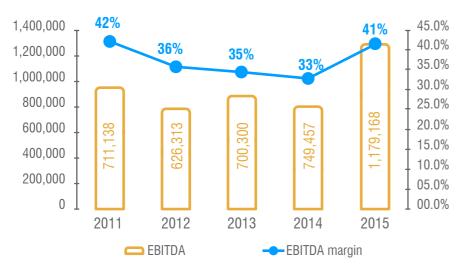
Below we present the last five years of data on Operating Profit, EBITDA and Net Profit, according to the International Financial Reporting Standards (IFRS).

#### **Operating Profit**



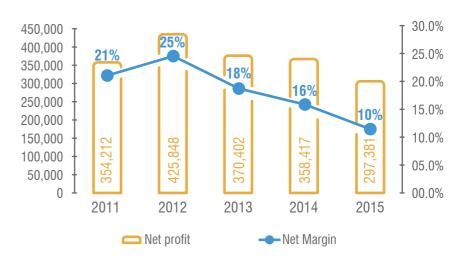
IFRS figures in millions of Colombian pesos

#### **EBITDA**

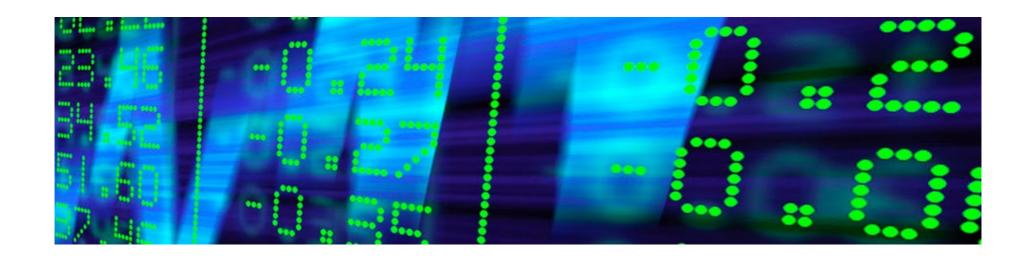


IFRS figures in millions of Colombian pesos

#### **Net Profit**



IFRS figures in millions of Colombian pesos



### **Balance Sheet**

#### **Assets**

In 2015, assets were reported at \$8,368,775 million, representing an increase of 3% compared to \$8,125,463 million reported in 2014. The variation is explained mainly by the current assets up 26% due to the higher value of accounts receivable from clients.

The figures are presented below:

Assets	2014	2015	Variation %
Current Assets	780,899	982,887	26
Non-Current Assets	7,344,564	7,385,888	1
Total Assets	8,125,463	8,368,775	3

IFRS figures in millions of Colombian pesos

#### Liabilities and Equity

Liabilities were up 10% from 2014, reaching \$4,908,476 million. This increase was essentially the result of long-term loans disbursed to finance the last stage of the Sogamoso Hydroelectric Power Plant Project. Accordingly, current liabilities increased 34% compared to last year. This was due to commitments to suppliers and creditors for the project.

In turn, the 5% decrease in equity is due to the distribution of part of the temporary reserve created in previous years to support the execution of the expansion plan.

The following table summarizes variations in Liabilities and Equity:

riation %
34
6
10
-5
3

IFRS figures in millions of Colombian pesos

In conclusion, the financial results show a Company that, in spite of the adverse circumstances confronted this year, has continued to contribute to strengthening the country's energy market while holding a competitive market position in a cost-effective manner through responsible financial management, focused on building a solid financial position and optimizing resources on a sustainable foundation built to ensure business continuity.

Learn more about the financial results here.

### **FINANCING**

The financing management in 2015 was focused on maintaining the Company's financial capacity, establishing the strategy to mitigate the risk associated with the debt, seeking alternatives for the optimization thereof, defining systems for the funding and assessment of non-conventional renewable energy projects, evaluating and structuring a private capital fund as a leveraging mechanism, and also maintaining the highest credit ratings on the local level and investment-grade rating on the international level.

In addition, activities carried out during the year include:

- Completion of disbursements associated with the Sogamoso Hydroelectric Power Plant Project.
- Analysis of debt replacement alternatives as an action plan in the event of prepayment due to a change in the Company's majority shareholder.
- Identification of structures for the replacement or improvement of the debt profile, assessment of potential scenarios of optimization, replacement and/or prepayment and steps by the corresponding authorities to carry out the process.
- Identification and analysis of the different sources on the local and international markets to fund non-conventional renewable energy projects, on and off the balance sheet for this type of project.
- Analysis of the use of private capital funds as a leveraging mechanism and start of the structuring process.

From the financial risk management standpoint, we assessed the market risk associated with the debt and we carried out strategies for the debt service performed in foreign currency and the unrealized exchange difference, which decreased the impact on the Statement of Income and ensured the cash flow required for the international debt servicing

On December 31, 2015, ISAGEN's debt composition was as follows:

	Currency	Current balance	Term	Face Interest Rate	Matures
Banking Club Deal	\$	1,560,625	12	IBR + 4.30%	2025
Power Finance Trust Limited	\$	364,844	20	CPI + 5.25%	2025
Bonds 15	\$	411,432	15	CPI + 6.99%	2024
Bonds 10	\$	301,807	10	CPI + 6.48%	2019
Bonds 7	\$	209,777	7	CPI + 5.93%	2016
Bank Loan	\$	245,559	12	IBR + 4.30%	2026
Bank Loan	\$	251,859	12	IBR + 4.05%	2026
Banco Santander of Spain	USD	50,048	19	LIBOR + 1.40%	2032
Finance Lease	\$	89,996	15	DTF + 4.1%	2031
JBIC	USD	34,421	13	LIBOR + 2.85%	2025
Bank of Tokyo-BBVA	USD	11,523	6	LIBOR + 1%	2018
	\$	3,435,900			
	USD	95,992			

In the year \$30,200 million and USD 8.3 million in loans were amortized. Available credit of \$254,469 million corresponding to the loan with Banco Davivienda and Leasing with Bancolombia, and USD 5.1 million corresponding to contracts signed with JBIC, Bank of Tokyo (BTMU) and Banco Santander Spain were disbursed.



See our credit rating here.

### Implementation of Financial **Management Standards**

In order to position ISAGEN's Treasury Department with world-class practices, and use financial information to make better decisions, we started the process to Modernize the Treasury Department. The purpose of this process is to optimize bank reconciliation and payment mechanisms to make them more secure, efficient and timely, by implementing the SWIFT network (Society for Worldwide Interbank Financial Telecommunication, or in Spanish, Sociedad para las Comunicaciones Interbancarias y Financieras Mundiales), which in turn makes it easy for users to exchange financial information in an automated manner with the highest international standards, reducing operational risks and eliminating operating inefficiencies, in order to have more timely cash flow information with better levels of security.

In addition, we are working on the implementation of an Asset Management system based on international standards to optimize the life cycle thereof (design, incorporation, maintenance, modernization, divesting) and support structured decision-making, with risk performance and cost criteria. In 2015, we met the challenges set forth regarding the plans corresponding to the Asset Management System structuring stage and the incorporation of guidelines at the different phases of the life cycle thereof...

### SHARE TRENDS

Stock market trends in 2015 were characterized by the recorded volatility and devaluation. This is reflected in the regression of the COLCAP index by 23.75% throughout the year, at a minimum of 1,051.25, which is the lowest since 2009.

In regards to 2014, our present share at the close of the year had a rise of 14.67%, to a closing price of \$3,400, an average daily trading volume of \$5,582 million and 1,042,677 shares traded.

In the first half of the year, our shares were one of the securities with the most activity on the market due to the resumption of the Colombian Government's process of selling its holdings in the Company, whose auction was set for May 19. This led to shares at a price of \$3,390, the highest in its history on the Colombian Securities Exchange. However, following the suspension of the sale process, the price did not hold up and therefore, ISAGEN recorded a devaluation of 14.5% in just seven days, compared to the highest value achieved.

By the second half of the year, share trends continued to be influenced by the uncertainty generated by the sale process and the recomposition of the MSCI Index (Morgan Stanley Capital International) basket. In regards to the sale process, it was reactivated on September 10, which caused a 12.92% increase in value in just one day, going from \$2,825 to \$3,190 on September 11.

On December 22, the National Government announced the new valuation. establishing a minimum price per share of \$4,130, which pregualified investors were supposed to offer for the Company. On December 22, the new auction date was set for January 13, 2016.

In relation to the rebalancing of the MSCI Index, the share was taken out of the basket, driving the price per share to the lowest of the year, standing at \$2,650 and a volume of transactions at \$172,517 million, the highest in the history of the share on the market.



Weighting of shares in the Colombian Securities Exchange benchmark index (COLCAP) from February 2015 to January 2016 was as follows:

#### **ISAGEN** share in COLCAP

February - April	2.569%
May - July	2.845%
August - October	2.627%
November - January 2016	3.143%

# Main Share Indicators and Multiples

	2013	2014	2015
Market capitalization (millions of \$)	8,859,734.00	8,082,803.48	9,268,645.00
Average volume (millions of \$)	3,297.00	3,661	4,890.00
Earnings per share (\$)	135.87	131.48	108.62
Dividend yield	2.13%	2.69%	5.28%
Closing price	3,250.00	2,965.00	3,400.00
Carrying amount or intrinsic value	1,285.67	1,337.28	1,269.34
P/B - price/book ratio	2.53	2.22	2.68
P/E - price/earnings ratio	23.92	22.55	31.30
P/S - price/sales ratio	4.42	3.47	3.28
EV/EBITDA	16.49	15.52	10.73
Free Float %	26.90%	29.40%	29.25%
ROE	10.57%	9.83%	8.56%
ROA	9.21%	8.75%	13.04%

# RELATIONS WITH INVESTORS AND FINANCIAL SERVICE PROVIDERS



In 2015, relations with investors and financial service providers were strengthened by ongoing work and innovation in the disclosure of information, communication and our response to their requests.

#### Points of special interest:

- Design of an information disclosure policy that contains all the Company's criteria and responsibilities on the matter, which was approved by the Board of Directors.
- Permanent response to investors' concerns in order for them to have sufficient information for their investment decisions, lessen the perception of risk and strengthen their confidence in the Company. To this effect, we attended various investor conferences in Colombia and abroad, and had investors and analysts visit our headquarters. We also provided permanent attention through the communication channels.
- The Colombian Securities Exchange (BVC) granted us IR Recognition for the third consecutive year for our good investor relations and disclosure practices, such as: having a permanent investor service team, the publication of updated Company information in Spanish and English, dissemination of a quarterly financial report, among others.
- We developed a referencing system with local radio stations, in which we identified new practices to be implemented and we even defined an action plan. The objective was to strengthen and improve current investor relations, considering that it is a practice of transparency that is relevant to the market and to investors.
- We characterized relations with financial service providers, identified the expectations of both parties and established a strategic model to serve as a guide. To do so, we carried out activities such as dialogs, strategic workshops, interviews and meetings with these specific providers, as well as teams from the Company, in charge of stakeholder engagement. As a result, we built the Engagement Strategy Model (MER, for the Spanish original), which consists of four stages: exploration, regulation and changes, the path to short-term shared value and to long-term shared value.
- Learn more about the mechanisms for communication and dialog with investors here.

# Energy of being an **Investor**



lván **Jukopila** 

Risk and Extralegal Fund Manager

Caxdac

"ISAGEN's entry and permanence in the Dow Jones Sustainability Index is important for the risk and profit considerations, as well as environmental sustainability. We have always obtained this information in a timely, satisfactory manner".



# 2016 CHALLENGES

- O Maintain the credit rating and the funding of business needs.
- O Strengthen relations with financial service providers.
- O Analyze and select the best alternatives for the application of new tax benefits.
- O Invigorate the asset management system to support decision making.





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Water risk management

Efficient use of resources

Synergy

Governance

Water mandate

2016 Challenges



Luis Fernando **Rico**Chief Executive Officer

"Water is an axis of development that we can only care for adequately if we work collectively for it in the territories. This why we at ISAGEN support spaces that contribute to integrating the vision of everyone as beneficiaries and those responsible for making plans and concrete policies, which promote its use as a public resource that should be protected and properly managed."



### 2015 MILESTONES

- 434 people attended the Water Conference held in association with El Espectador and the International NGO WWF as a space to promote dialog and proposals about governing water resources at the national level.
- 21 municipalities in Eastern Antioquia hosted the first roundtable discussions with local actors within the framework of the initiative called Dialogs for water custody, focusing on the conservation of the Nare River basin and developed in partnership with EPM, CORNARE and WWF.
- We renewed our commitment with the Watershed and Water Agreement, committing to caring for water resources and social development, interacting with public, private and civil society institutions in Caldas, Tolima and Antioquia.
- 83% of these power plants have lower domestic water consumption per capita than the goal set for each power plant, thanks to the well-executed savings plans and plans for efficient use of water. We recorded a 9% reduction in the consumption of this resource at our headquarters.

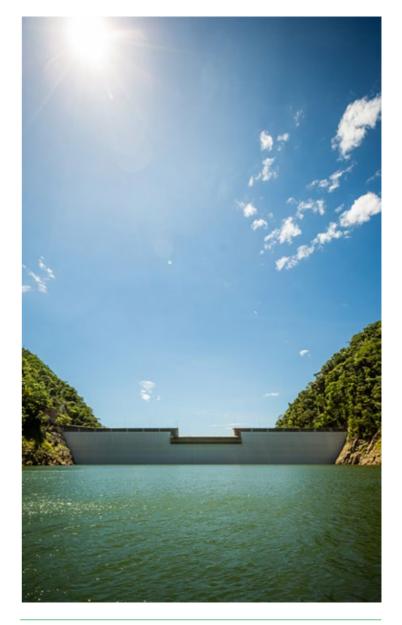
There is a global consensus on the narrow link between water, energy and food, so it is necessary to have a comprehensive treatment of water resources to improve the efficiency of its use, mitigate and control shortage risks, create synergy between users and projects, and to have governance that is coordinated across all sectors. A comprehensive understanding of this resource is fundamental to creating strategies they comply with many of the Sustainable Development Objectives (SDO) that, for 2030, implicate an increase in global energy production, water production and food production of 50%, 40% and 35%, respectively.

Colombia is a country that is privileged with a wide range of water resources that amounts to two trillion cubic meters of surface runoff, i.e. the flow of water, rainfall and other sources to the ground, per year, with average returns of 56 l/s/km², which is equal to six times the global average and three times that of Latin America²³. This condition is evidenced in the electricity sector largely by the hydroelectric generation component, which amounts to 80% of total electricity generation.

Additionally, for us, water constitutes a primary natural resource used in generation, since hydroelectricity represents 91% of our installed capacity and because water is an essential resource for the vapor refrigeration and supply systems of our thermoelectric plants. The narrow relationship of ISAGEN to water and to sustainable development motivates major efforts dedicated to the Comprehensive Management of Water Resources.

Due to its relevance in the business, this resource has been managed in the company by processes whose mission is to identify the hydrological potential and build electric power plants, produce energy and sell it. To this effect, each of them has undertaken the actions necessary to ensure the water management. However, as an improvement for this management, we decided to review the internal organization to ensure the integral management of the topic, which includes the government, the definition of the strategy and the adoption of practices.

In this chapter, we share the main advances we have made during 2015 in this area of management:



Amaní Reservoir. Miel I Hydroelectric Power Plant.

### WATER RISK MANAGEMENT



In spite of the high availability of national water resources, spatial distribution of these resources is unequal across the territory. The watershed regions of Magdalena-Cauca and Caribe, where 80% of the population and the National Gross Domestic Product (GDP), as well as our infrastructure and generation projects, have only 21% of the total supply of surface water. In this sense, the main threats to water resources are associated with pressure on use, contamination, shortage, variability and climate change.

Managing water as a factor of economic development and social wellbeing means overcoming various challenges in the country, such as an abundant and complex environmental standard that is constantly under review, conflicts of water and land use, consensus with different stakeholders, development of projects that do not consider the general interest and legal loopholes on property in its early stages, among others.

Our interest, when facing the current and future situation, is to build ties with communities, civil society organizations, government organizations and businesses at the local, regional, national and international levels to address the matters, policies and actions coordinated in favor of the territories where we develop our activities.

In our company, we have an action plan to manage water resource risk associated with climate change and other variables. One of the widely-used indicators for measuring the stress on water resources is the Falkenmark index<sup>24</sup>, according to which our power plants and hydroelectric power plant projects are without hydric stress<sup>25</sup>. The action plan primarily contains two lines of work: an institutional and regulatory system based on constructing public policy that involves proactive interaction with unions, institutions and generation companies and even other production sectors and another is pedagogical and self-management tool so that communities have the knowledge and capacity to use this resource, ensuring its preservation. We are also aligned with the National Water Policy that seeks to guarantee water sustainability through participative, efficient and effective management, linked to territorial organization and the conservation of ecosystems.

- 24. The measure of water resource stress is defined as the portion of total annual runoff available for human use. Based on this index, the water conditions in a region can be classified as: stress-free (>1,700 m³/inhab/year), stress (1,000 1,700 m³/inhab/year), shortage (500 1,000 m³/inhab/year) and absolute shortage (< 500 m³/inhab/year).
- 25. WWF in its research: "The State of Water Resources in the Andean Region", reports a water supply for Colombia of 2,100 km³, which is equivalent to an annual average availability of 47,000 m³/inhab for the year 2005. The basin of the Magdalena and Cauca Rivers, where 66% of the country's population is concentrated, has 13% of the water supply, which is why the per capita availability is significantly lower than the national average at 9,934 m³/inhab/year, but still far from a condition of water stress.

# EFFICIENT USE OF WATER RESOURCES



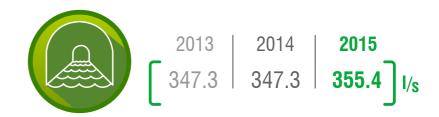
### Water consumption

In our operations, we only use water from granted sources, and we take into account sustainability criteria and the habitats associated with these sources. We implement activities that promote the conservation of resources, such as programs for saving and efficiently using water, monitoring water quality, monitoring and controlling consumption, preventative and corrective network maintenance, among others.

# Water for domestic and industrial use

We harness surface water in our six hydroelectric power plants and two transfers, and harness subterranean water at the Termocentro Power Plant. Flows were granted by administrative acts issued by the competent environmental authorities.

### Total water granted in the power plants providing water for domestic use I/s (2013-2015)



Flows granted for domestic use tend to be the same, given that there are no real changes made to the current infrastructure; therefore, the difference between 2014 and 2015 is due mainly to the Sogamoso Hydroelectric Power Plant and its shift from the construction phase to commercial operation.

We also requested a water concession for energy generation; therefore, in the Miel I, Amoyá, Calderas and Sogamoso power plants, the environmental authorities assigned a specific flow to be harnessed. For their part, for the San Carlos and Jaguas Hydroelectric Power Plants, the granted flow is not specified. The Antioquia Governorship granted all water from the Nare River for energy generation in those power plants, so the flow granted is the same as the turbine flow throughout the year.

Total water granted in the power plants providing water for energy generation in I/s (2013-2015)



An increased value of this indicator corresponds to the start-up of the Sogamoso Hydroelectric Power Plant.

# Total and per capita water consumption

Once the water requested for consumption is treated, it is supplied to the workers, contractors and visitors through the distribution networks. Consumption data can be seen in the following table:

#### Total domestic water consumption in m<sup>3</sup>/year (2013-2015)





#### Water consumption per capita 2015

Power plant	Consuption per cápita (l/inhab/d)
Amoyá	142.10
Calderas	127.20
Jaguas	186.40
Miel I	166.70
Guarinó	59.40
Manso	40.7
San Carlos	163.89
Sogamoso	266.00
Termocentro	263.68

2014 saw an increase of 26.4% in domestic water consumption in the electric power plants because of the start-up of the Sogamoso Hydroelectric Power Plant. We do not use recycled or reused water at our power plants for the activities we develop.

83% of these power plants show lower domestic water consumption per capita than the goal set for each power plant, thanks to the well-executed savings plans and plans for efficient use of water.

### Discharges and spills

In the following table, we present the volume of discharges that occurred during 2015:

#### Volume of discharge by power plant in m<sup>3</sup> (2013-2015)



The data reported shows variation with respect to that recorded in 2014, because with the commercial start-up of the Sogamoso Hydroelectric Power Plant, the number contractors decreased. Also, the 2013 and 2014 data were recalculated, since in 2015 we did not include the volume of

turbine water because it was not part of a discharge.

The quality of water discharged from the power plants meets Colombian standards, since they have wastewater treatment systems that allow for the purification of discharge at sufficient levels to be delivered to the soil and surface water sources in areas of influence. Furthermore, these were applied on bodies of surface water that are not classified as RAMSAR wetlands<sup>26</sup>.

In 2015, water quality monitoring systems showed that discharge did not affect the quality of the water resources and did not significantly impact these resources. We also obtained an average efficiency for removing organic material of 83% for the power plants, relatively close to the value reported in 2014, which was 82.33%, a possible figure due to the development of different treatment types. In 2015, there were no significant spills in the power plants or the facilities, nor did we incur any economic fines or sanctions for non-compliance with environmental legislation.

List of wetlands of international importance, recognizing the fundamental and ecological functions of the wetlands and their economic, cultural, scientific and recreational value.

## **SYNERGY**



Socialization of dialogs by Water Custody

### Water custody

Since 2014, we have participated in the development of this global initiative, in partnership with WWF Colombia, which comprises a diagnostic of watersheds, knowledge of water supply and demand, risk and impact assessment, reviewing the relevance and insertion of the resource in corporate policies, internal and collective actions that influence public policy to optimize efficient use of water resources and its governance, among others. With this strategy, we seek to contribute to knowledge and the subsequent reduction of our water footprint<sup>27</sup>, and to strengthen the dialog so that actors in the watershed can come to voluntary agreements

to protect water resources, passing from a philosophical compromise to concrete actions in collaboration with public, private, educational, community and union-based sectors, among others.

In 2015, in collaboration with EPM, CORNARE and WWF, we presented the Dialog initiative for water custody to the municipal authorities and the guilds in Eastern Antioquia, which focuses on the Nare River basin. We held the first roundtable discussions with local actors from 21 municipalities in the region. In 2016, we intend to jointly compile an analysis of the status of water resources in the region, and generate, in a participative and coordinated manner, agreements for the protection and responsible use of water. We also will evaluate the blue<sup>28</sup> and green<sup>29</sup> water footprints of the watershed with actors such as CORNARE and EPM.

- 27. The hydric footprint, or water footprint, is defined as the total volume of fresh water used to produce goods and services produced by a company or consumed by an individual or a community.
- 28. The blue footprint is the volume of fresh water extracted from a body of surface water or subterranean water that is evaporated during the production process or incorporated into a product.
- 29. The green footprint is the volume of rainwater that is evaporated during the production process or incorporated into a product.

# Energy of being a Civil society organization



### Mary Lou **Higgins**

Director for Colombia

The World Wide Fund for Nature (WWF)

"We work with ISAGEN to join technical and financial efforts with local communities, and the capacities of each one to promote knowledge about water. We have made progress in the process of collective action, training, identifying problems, participation with the communities and the productive sector to create paths toward water resource management".

### Agreement on watersheds and water

We signed an agreement in 2013, publicly committing ourselves to caring for water resources and social development, in collaboration with public, private and civil society institutions in the departments of Caldas, Tolima and Antioquia, to identify complementarities, create synergies and ratify the commitment not only to care for and preserve the Guarinó, La Miel and Chinchiná River basins, but also for land-use planning, the management of natural resources and the social and economic development of the communities.

In 2015, in an event held in La Dorada (Caldas), which the Ministry of the Environment and Sustainable Development attended, we renewed our commitment with this Agreement, forming part of the initiatives such as the Comprehensive Action Plans (CAP) and the Classification and Environmental Management Plan (CEMP). The commitment of the community participating in the CAP and the institutional support of the initiative was emphasized firsthand, as well as the rootedness and sense of belonging of the territories that have allowed for its success.

### Comprehensive Action Plans (CAP)

Our priority is to ensure the protection of the tributaries that supply the reservoirs. Through the Comprehensive Action Plans (CAP), the companies and all the users of the river are committed to care for and maximize the potential of life in the tributaries, their minerals and nutrients; in addition, they serve as platforms for socio-environmental dialog among different actors who analyze problems, make agreements, manage and execute actions to protect, recover and develop the watersheds:

The **La Miel River CAP** is characterized by the large participation of four river communities, making social legitimacy and a strong sense of belonging and coresponsibility in sustainably managing the river possible. The many actions developed and the participation of different actors involved allows the process to support territorial planning, with socio-environmental topics as a driving factor. The challenge we have identified is the development of activities in the upstream part of the watershed, which drive comprehensive intervention in the watershed.

The Guarinó River CAP is aligned with the Classification and Environmental Management Plan (CEMP), proposing long-term actions, co-financing, land use planning, local institutional involvement and participation from community representatives from the nine municipalities that make up the watershed.

It includes complementary environmental restoration activities and improved conditions for the inhabitants of the micro-basins or districts affected on the part of the environmental authorities, the communities, and some institutions and companies present in the region. This CAP was first of its kind in the country and a benchmark of strategic partnership.

### With the communities

During 2015, a total of 8,201 inhabitants in our area of influence participated in the Environmental Education Program, where we addressed themes on the rational use and importance of water. During the water resource and fishery protection programs, we called on the community to conserve the watersheds supplying our reservoirs, and we also sensitized other stakeholders such as investors and clients by sending out brochures with themes such as climate change and the efficient use of natural resources.

Learn about our process for protecting water resources in the territories.

### With our suppliers

We perform audits on our suppliers that include general sustainability and we concern ourselves with sensitizing these stakeholders in the efficient use of natural resources. We have an environmental risk identification model in the supply chains and we include evaluation criteria related to water dependency. Suppliers who have a critical risk are enrolled in assistance model, which measures their level of corporate maturity and, from these elements that have wider gaps, we define the work plan in which we set goals for the supplier in different areas that transcend water resources.

In 2015, we performed sensitization and training activities with a course called "Course on clean production and responsible environmental management" together with Acopi and SENA.

Learn more about environmental management of the supply chain here.

### Actions with other organizations

- o We collaborated with the Medellín and Aburrá Valley Early Warning System (EWS) to monitor and improve weather forecasts for the basins at the San Carlos, Jaguas, Calderas, Miel I Hydroelectric Power Plants and their two feeders. In 2015, we implemented the Hydrogen system. which allowed us to create a simulation and forecast of natural flows from the tributary rivers to the reservoirs.
- o We support the boards of directors for community aqueducts to strengthen their operation, technical conditions of the aqueducts and service provision

Below are some important results from 2015:

O Due to the partnership with the Corporation for Environmental Education and Research Studies (CEAM), we completed the first phase of administrative, technical and environmental strengthening for the Boards of Directors for District Aqueducts in the communities of three townships in the Samaná municipality and two in the Norcasia municipality in Eastern Caldas. With this same corporation, we prepared two five-year community plans for rural aqueducts in four districts in the San Carlos and Granada municipalities in Eastern Antioquia.



Workshops with communities benefiting from the ISAGEN - CEAM agreement for strengthening rural aqueducts in the municipality of Samaná, Caldas.

- o In a partnership with the Cimitarra City Hall and with the participation of other companies, we made progress on the construction of a community aqueduct in a district within the Cimitarra municipality in Santander, benefiting 150 users.
- O During 2015, progress was made in a diagnostic to identify possible solutions to existing challenges of water access in districts located over tunnel connections of the Amoyá River, La Esperanza Hydroelectric Power Plant. An analysis of reports, documents and complaints associated with the decrease in water resources was performed, and an intervention plan was made for each district as well as a prioritization of these districts for the development of activities that would be performed under ISAGEN's Complementary Management. The districts prioritized by ISAGEN were Los Sauces, El Recreo, San Pablo, El Moral and El Jardín.
- We were part of the participative creation of the Classification Plan for the Topocoro Reservoir of the Sogamoso Hydroelectric Power Plant for uses alternative to electricity generation. The actions foreseen have do with the water concessions, river occupancy concessions and discharge permits pursuant to law.

### GOVERNANCE

#### Promotion of public policies

- O We actively participate in sectoral committees, including the ALCOLGEN Environmental Committee. From this platform, we contributed so that a paragraph was added to Article 54 of Law 1753 / 2015, in which the electric power plants holding a water concession close to expiring could start their renovation process two years before its expiration. The foregoing facilitates the process of interaction with the competent environmental authorities and the communities regarding the flow whose use would be authorized.
- o In association with El Espectador and the international NGO WWF, we led the Water Conference, a Colombian initiative that served as an opportunity for dialog between governmental, corporate and social actors to raise awareness about national governance of water resources at the regional and national levels. Spaces were also promoted for planning proposals and solutions focused on efficient management of this valuable resource. 434 people participated.



The themes of the dialog were: priorities of the Development plan in national water resource management, the strengthening of institution involvement in the face of the new water resource situation in Colombia, the governance, licenses and permits for approval and the generation of knowledge, among others.

Voluntary public and private agreements were planned regarding these topics, in addition to regional dialogs being made to analyze how the National Water Council will work, the involvement of civil society and the value that water represents, coming to the conclusion that the water problem in Colombia is not the amount, but how it is managed. 125 people participated in this space.

Click here to learn more about:

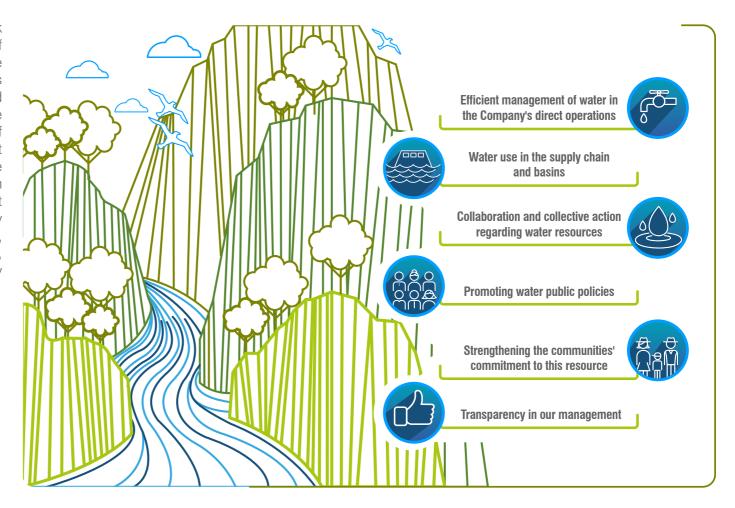
- Fourth Water Conference
- Reflections of our CEO on these conferences
- O We are members of the National Electrical Operations Council (CNO) and we actively participated in the first workshop on sediment management in reservoirs in Colombia, which was attended by international experts to share experience, strategies and regulatory frameworks from other countries. The CNO's members engaged in commitments to initiate actions channeled toward making a regulatory framework that allows the future management of sediment at reservoirs viable, in search of sustainability.

## Other actions of water resource governance

- O We initiated studies on the watershed for the Punchiná Reservoir of the San Carlos Hydroelectric Power Plant to identify the sources of sediment production, to quantify the amounts produced in other watersheds and to establish rates and patterns of sedimentation, among others. The purpose is to estimate the lost capacity of the reservoir over time and to define strategies for handling sediment in the watershed and reservoir in collaboration with the environmental authorities.
- O We made progress in creating a protocol for removing sediment and opening the reservoir gate of the Calderas Hydroelectric Power Plant at the request of the National Authority of Environmental Licenses (ANLA). Therefore, we signed an agreement with the Antioquia Science and Technology Center (CTA) and the University of Medellín to conduct test openings of the gate of the Calderas Hydroelectric Power Plant and physical, biotic and social monitoring to mitigate the impacts that could be generated. This is a first-time activity in the country, since this type of protocol does not exist in Colombia for any hydroelectric power plant and the comprehensive management of sediment in reservoirs has only been addressed recently in the world, from the operational point of view.
- O We worked toward improving water quality in all electric power plants and corporate headquarters. We developed activities to improve the quality of our discharge so that the conditions of receiving bodies of water remain unchanged.

### WATER MANDATE

At the international level, we took the Water Mandate, an initiative of the Global Compact as a reference framework, which invites business leaders to commit to and acknowledge that the private sector has an important role of addressing water management challenges. In 2014, we joint the commitment to make progress in the implementation of lines that provide: direct operations, supply chain and reservoir management, collective action, public policy, relationship with the community and transparency.





## 2016 CHALLENGES

- O Propitiate spaces for reflection, together with El Espectador and WWF, to establish voluntary agreements on water resource governance in Colombia and to encourage the collective commitment to preserving these resources.
- O We will define the organization for water resource management at ISAGEN.
- O We will continue to develop activities under the ISAGEN-WWF Agreement for the construction and disclosure of collective agreements for water resource management in Eastern Antioquia.
- O Calculate the water footprint in the areas of ISAGEN reservoirs as part of the development of a water custody strategy.



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Global-scale commitments

Current Greenhouse Gas Inventory (GGI)

Clean Development Mechanism (CDM)

Comprehensive Energy Management (CEM)

Efficient use of resources

Work in the network and promoting care for the climate

2016 Challenges



Luis Alberto **Posada**Director

Research and Development

"The connection between climate and water is indisputable, so we are conscious of the impact of phenomena such as climate change on the availability of water resources necessary for preserving biodiversity, the wellbeing of communities and energy generation".



## 2015 MILESTONES

- 7.54% reduction in Greenhouse Gas (GHG) emissions due to reduced electric energy generation at the Termocentro Power Plant.
- We obtained an Assurance Statement of Greenhouse Gas Inventory for ISAGEN in 2014 from ICONTEC.
- We finalized the validation process of the Sogamoso Hydroelectric Power Plant Project as a Clean Development Mechanism (CDM) by RINA, a Designated Operational Entity (DOE) and we began the corresponding registration process with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).
- Verification of the Certified Emission Reductions (CER), associated with the operation of the Amoyá Hydroelectric Power Plant (80 MW), through the AENOR association from Spain, in the period between May 31, 2013 and May 31, 2015. During the period verified, the net removal or reduction of 272,277 tons of CO<sub>2</sub>e was performed.

During the last two centuries, there has been a tremendous growth in the global economy, driven by the intense use of fossil fuels such as carbon and petroleum, which has led to the emission of huge amounts of carbon dioxide and methane, among other gases, into the atmosphere, which we know as Greenhouse Gases (GHG). These gases have contributed to an increase in global temperature, and thus to climate change, with economic effects for all countries, as well as on the availability of water resources and the wellbeing of the population.

In the 21st United Nations Conference on Climate Change (COP21) in Paris, it was acknowledged that climate change represents a pressing threat and has potentially irreversible effects for the planet, requiring an international response. Furthermore, the private sector has been called to join efforts and support measures to decrease its carbon footprint, i.e., direct or indirect emissions produced from its activities, as well as decreasing vulnerability to effects of climate change.

We embody our management within this context, taking our higher purpose as a starting point: "By generating smart energy, we contribute to society's prosperity". We present the main results of 2015 in this chapter:

## GLOBAL-SCALE COMMITMENTS

We are voluntarily linked to the United Nations Caring for Climate initiative, which is part of the Global Compact, taking on the challenge of developing actions to reduce the carbon footprint, promoting the adoption of this initiative among our stakeholders, and contributing to the development of public policies and mechanisms that contribute to reducing the effects of climate change. We also report information related to climate change management to the *Carbon Disclosure Project* (CDP), in 2015 earning recognition for our management at the Latin American level, with a score of 83 out of 100 in the CDP Report. This initiative is promoted by a non-profit organization that provides the largest and most complete global system of environmental diffusion, directed at investors, companies, authorities and governments to contribute to mitigating the risks of using energy and national resources, as well as identifying opportunities for a responsible focus on the environment. ISAGEN took on the commitment, with this initiative, to disclose reliable information on the management of climate change.

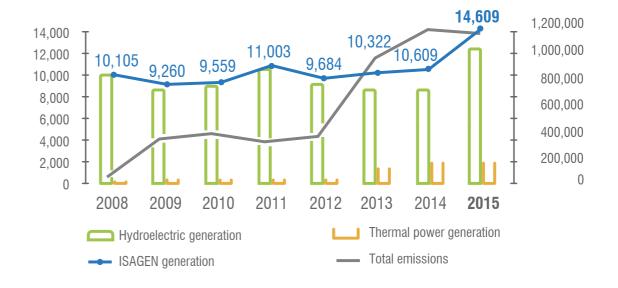


## CURRENT GREENHOUSE GAS INVENTORY (GGI)

We measured our carbon footprint for the 2008-2014 period, during which we grew significantly both in installed capacity (40%) and in energy production (60%). For this measurement, we took emissions associated with operating the electric power plants, administrative headquarters and projects under construction into account. Emissions are measured in tons of CO<sub>2</sub> equivalent, information that provides a valuable input to define a strategy for reduction and compensation of the carbon footprint in the coming years.

Below, we present a summary of our energy generation and the respective GHG emissions during the measurement period:

#### Generation in GWh and GHG emissions in tons of CO<sub>2</sub>e (2008-2015)



In 2015, we obtained an Assurance Statement of ISAGEN Greenhouse Gas Emissions Inventory from the Colombian Institute of Technical Standards and Certification (ICONTEC), as an entity authorized by the United Nations, corresponding to 2014 based on the ISO 14064-3 standard and GHG protocol. The inventory assurance corresponds to an external auditing process directed at verifying the accounting of GHG emissions associated with the sources of emissions and drains, within the company's operating limits during the period of its quantification. Its importance is confirmed by a valid independent third party, and it states that the inventory meets the requirements established by the protocol and that the level of information assurance is reasonable and verifiable.

Click here to learn more about:

- Certification awarded by ICONTEC on GHG inventory in 2014
- Final 2014 GHG Report
- GHG distribution (2013-2015) by source

Below, we present GHG emissions and their severity over the last three years.

#### **Greenhouse Gas Emissions and their intensity (2013-2015)**

2013	2014 <sup>31</sup>	2015
788,777	1,100,427	1,058,776
5,201	4,232	2,686
137,527	48,144	4,419
931,504	1,152,803	1,065,881
0.0902	0.1087	0.0831
	788,777 5,201 137,527 931,504	788,777 1,100,427 5,201 4,232 137,527 48,144 931,504 1,152,803

During 2015, we reduced total emissions of Greenhouse Gases (GHG) by 7.54%, going from 1,152,803 tons of  $CO_2e$  in 2014 to 1,065,881  $CO_2e$  in 2015 and, as was projected in the previous year, the severity factor was significantly reduced, from 0.1087 tons of  $CO_2e$  / MWh.

The relevant result indicates that to obtain this result, thermal power generation at the Termocentro Power Plant was reduced, the greatest source of GHG emissions for the company, by approximately 5%, while hydroelectric power generation increased by 27%, with the start-up of the Sogamoso Hydroelectric Power Plant during the same period.

#### 30. Scopes:

**Scope 1:** covers direct GHG emissions generated by sources that are owned or controlled by the Companyn in the following types of activities: electric, heat or vapor energy generation, physical or chemical processes, material transport, products, residuals and employees; and furtive emissions (intentional or not intentional).

**Scope 2:** covers emissions related to electricity generation acquired and consumed by the company. Acquired electricity is defined as electricity that is purchased or brought in within the company's organizational limit. Scope 2 emissions occur physically in the power plant where the electricity is generated.

Scope 3: its coverage allows all other indirect emissions to be included. Scope 3 emissions are the result of the company's activities, but they occur in sources that are not owned or controlled by the company. For example, leased assets, transportation contracts with third parties, the use of purchased products and services and the disposal and treatment of waste by third parties. Severity of emissions: includes scopes 1, 2 and 3 and is the ratio between quantity in tons of CO<sub>2</sub> equivalent emitted and MWh generated.

31. 2014 emissions were adjusted during verification, going from 1,149,718, the data reported in the previous management report, to 1,152,803 tons of CO<sub>2</sub>e, which was set as a basis for the year.

## CLEAN DEVELOPMENT MECHANISM (CDM)



Azud, Amoyá River-La Esperanza Hydroelectric Power Plant.

When a company chooses to construct a so-called clean energy project, such as a hydroelectric power plant, instead of one that operates using fossil fuels, such as a thermal power plant, it has the option of registering the project with the United Nations as a Clean Development Mechanism (CDM)<sup>32</sup>, which allows them to verify the GHG emissions avoided or substituted and convert them into carbon credits, such as Certified Emission Reductions (CERs). Each one represents one ton of CO<sub>2</sub>e that has not been emitted. See our progress on this topic below:

o We performed the Verification of the Certified Emission Reductions (CERs) associated with the operation of the Amoyá River-La Esperanza Hydroelectric Power Plant (80 MW), through the AENOR association of Spain (Designated Operational Entity certified by the United Nations, DOE), in the period between May 31, 2013 and May 31, 2015. During the period verified, the net removal or reduction of 272,277 tons of CO₂e was performed.

- O We finalized the validation process of the Sogamoso Hydroelectric Power Plant Project (820 MW) as a Clean Development Mechanism (CDM) by RINA, a Designated Operational Entity (DOE) and we began the corresponding registration process with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).
- o It is estimated that the start-up of the Sogamoso Hydroelectric Power Plant in 2015 offset approximately 870,000 tons of CO₂e.
- **o** We continued to measure and characterize the GHG emissions at the Topocoro Reservoir of the Sogamoso Hydroelectric Power Plant.
- O We continued developing new energy generation projects with conventional and alternative renewable sources (wind and geothermal) as a CDM..

32. According to data from the Ministry of the Environment and Sustainability for 2014, Colombia has a portfolio of 197 CDM projects, 93 of which have national approval and 58 of which are registered with the United Nations, ranking Colombia fourth in Latin America and twelfth in the world for having the most projects that this international body accepts for registration.

## COMPREHENSIVE ENERGY MANAGEMENT (CEM)

We continued to implement programs such as Comprehensive Energy Management (CEM) to promote efficiency in energy consumption among clients, as well as in our electric power plants. We also shared good environmental practices with the value chain.



### EFFICIENT USE OF RESOURCES

Our administrative headquarters in Medellín has LEED Gold Certification. We meet the sustainability criteria, among which include the location, efficient use of resources such as water, indoor environmental quality, energy efficiency, use of ecological materials and resources, and innovation. Below, we share the figures relevant to energy and water savings at our headquarters:

#### Electric energy consumption at headquarters in terajoules (2013-2015)

	2013	2014	2015
Terajulios	10.25	10.08	9.97
kWh	2,847,222.2	2,800,000.0	2,769,444.4

The implementation of different initiatives such as adjusting the schedule of air conditioning, changing from halogen bulbs to LED bulbs at different locations in the building and the use of photo voltaic cells, among others, contributed to reducing energy consumption between 2014 and 2015 by 1.09%. The headquarters consumed 30,448 kw/h less compared to 2014. However, the variation in energy rates (kW/h market) represented a payment 4.81% higher than in 2014.

### 2015 Water consumption at headquarters in m<sup>3</sup> (2013-2015)

Due to strengthening environmental training and education campaigns for workers and contractors on reasonable water consumption, in addition to actions aimed to use rain water for security services, in 2015 we reduced water consumption by approximately 10% compared to 2014.





Click here to learn more about:







#### Energy and water savings at headquarters<sup>33</sup>

	2014	2015
Water savings (use of rain water) <sup>34</sup>	698 m <sup>3</sup> (\$3,000,471)	1881 m³ (\$8,230,951) In 2015, use of rain water represented 16.07% of the total value of water that was paid throughout the year.
Photo voltaic cell energy <sup>35</sup>	46.021 KWh (\$11,416,021)	25.214 KWh (\$6,621,741)  Energy generation from photo voltaic cells represented a savings of 0.73% of the total amount paid for energy used in 2015.
Energy from dimmerization and shutdown <sup>36</sup>	1,347,010 KWh (\$331,080,336)	1,341,580 KWh (\$354,047,667) Estimated savings from lighting strategies correspond to 39.16% of total paid energy in 2015.

- 33. Savings figures during 2013 are not reflected because the information does not allow for a comparison to be made. However, we published additional data for 2015 for future comparisons.
- 34. We improved the control system for rain water use by installing a water counter in the collection tanks. This variable depends on the rainy seasons.
- 35. For 2014, there was no monitoring or records of energy produced through solar panels. Additionally, the data collected were not reliable for three months, generating erroneous generation data for the year. In 2015, monitoring was more detailed and effective. The average monthly energy production with this equipment is 2,069 kwh. This variable depends on environmental conditions.
- 36. Dimmerization is the process of controlling the percentage of consumption of a lamp, which can reduce the amount of energy consumed. In this system, we performed shutdown in some of the building's zones that had sufficient natural light during the day, and we replaced various halogen bulbs with LED bulbs.

# NETWORKING AND PROMOTING CARE FOR THE CLIMATE

We are conscious that through coordination with other organizations to share practices and undertake joint actions, we achieve a greater scope and impact in our goals. We conducted the following actions in 2015:

- O We signed three specific agreements for the development and use of alternative energy sources in the development of a collaboration agreement signed with the University of Los Andes: the first relates to the impacts and uses of new technology in integrating wind energy on a large scale to the National Transmission System (NTS), the second is directed at evaluating the contribution of wind energy to the Colombian energy market, and the third focuses on designing and implementing an energy solution that incorporate the use of alternative renewable energy sources under the scheme of micro-generation and associated networks for isolated communities.
- **o** We supported the Earth Hour initiative of the *World Wildlife Fund For Nature* (WWF), with the purpose of inspiring sustainable practices and promoting the adoption of responsible habits that contribute to mitigating the impacts of climate change.
- O We joined forces with the Klimaforum Latin American Network (KLN) and its partners to publish the book, "Climate and Energy". Its content offers an independent vision of experts on the topic under the academic and business eye, contributing to the understanding of energy needs in the modern world, the impacts on the environment due to decisions related to energy development, as well as the opportunities and challenges that are implied.

Click here to learn more about:







## 2016 CHALLENGES

- O Strengthen and implement the climate change strategy.
- O Establish a plan to reduce and compensate for the carbon footprint.
- O Assess the voluntary adoption of a carbon price and establishment of a carbon fund to compensate for the company's CO<sub>2</sub> footprint.
- O Register the Sogamoso Hydroelectric Power Plant Project as a Clean Development Mechanism (CDM) with the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC).



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(Biophysical management)

Managing biodiversity and natural resources

Sustainable production and productive reconversion

Basic and applied research

**Environmental Education** 

2016 Challenges



Ana María **Gómez**Director
Environmental Projects

"The immense biological wealth of Colombia should be an ally for the development, not an obstacle to the construction and operation of projects. The greatest challenge that we have is experiencing this principle from the strategic point of view of the company and its implementation in management decisions, in the daily work of the employees and in the co-responsibility with communities and institutions. This harmony is the point of view that we should be progressing toward".



## 2015 MILESTONES

- 150,18 km² of forest cover, located on our lots, were the setting for the development of protection, conservation and restoration works. A total of 6.91 km² correspond to restored areas and 0.596 km² to compensated areas.
- Five million bocachico and tilefish fingerlings were planted during the first year of commercial operation of the Sogamoso Hydroelectric Power Plant for a total of 25 million since the construction of the hydroelectric power plant.
- 142 endangered flora and fauna species inhabit the forests located in the areas of influence that we study, monitor and conduct conservation activities.
- 8,201 inhabitants in our areas of influence and 7,286 employees, contractors and Army personnel participated in the Environmental Education Program.
- 87 families in the Antioquia River and Santander River watersheds benefited from the BanCO<sub>2</sub> program, as we paid them an amount proportional to the amount of conserved forested areas.

We are conscious of the importance of protecting national resources and biodiversity, particularly by promoting the sustainable use of goods and services that we are provided, to maximize the balance between ecological, cultural, economic and technological components, among others, which require joint, coordinated and agreed upon actions with the national government and society for its proper management.

In this chapter, we present the lines of work in our management within the biotic dimension (flora and fauna), as well as the main results during 2015:

## MANAGING BIODIVERSITY AND NATURAL RESOURCES



Glass frog - Sachatamia punctulata

The ecosystems in the areas of influence where our power plants and projects are located are inhabited by a large variety of native flora and fauna species, which are relative to the biogeographic zones<sup>37</sup> of the Colombian Andes. These areas are considered to be of high value for biodiversity due to their wealth of species and the new records we have for them, endemism<sup>38</sup>, risk of extinction, degree of vegetation cover and state of forest conservation. All of these natural areas sustain an innumerable amount of environmental goods and services, among which the following are highlighted: the regulation of water, nutrient and carbon cycles, the control of erosion and oxygen production, landscaping beauty, the control of plagues and diseases, refuge and habitat of diverse fauna species.

#### Identification of impacts and risks

We conceived the study of our natural areas and their associated resources as a tool that allows for the planning and assessment of actions in the territories, based on the development of periodic measurement processes with the participation of researchers enrolled in universities or specialized firms.

Our work is sustained by the dynamics of the ecosystems themselves, taking the National Policy for Comprehensive Management of Biodiversity and its Ecosystem Services<sup>39</sup> as a reference, and it is built by first identifying the most significant risks and impacts on biodiversity, recorded in our studies and environmental impact matrices.

The impacts are: loss of vegetation cover, visual alteration of the environment, landscape and terrestrial ecosystems, loss of habitats, death and migration of animals, increased pressure on natural resources and effects on biodiversity for aquatic plants and animals.

It's attention is focused on the environmental management plans for each power plant or project, and we periodically learn how to comply with measures to manage these impacts through the Environmental Compliance Reports (ECR), which we present to the ANLA and the relevant Regional Autonomous Corporations. This information is also stored in the ISAGEN Environmental Management System (EMS), which is audited annually by ICONTEC.

Click here to learn more about:

- ISAGEN's environmental management
- Physical, biotic and social impacts (real and potential) with their respective programs, included in the environmental management plans
- Corporate risks



<sup>38.</sup> Term used in biology to describe the tendency of some plants and animals to be naturally bound to a defined area, within which it is said they are endemic.









<sup>39.</sup> This policy intends to guarantee the fair and equal conservation and distribution of the benefits derived from biodiversity to contribute to the improvement of the quality of life of the Colombian population.

#### Forests and species

We worked on conserving 150.18 Km² of vegetation cover on ISAGEN's lots<sup>40</sup>. In total, we have 6.91 km² of restored areas<sup>41</sup> and 0.596 km² of compensated areas<sup>42</sup>. These are activities we perform on all of our lots and in areas of interest that generally form part of the watersheds where the operating power plants and projects are located. The distribution of conservation areas by type of vegetation coverage is shown in the following table:

#### Conservations area by type of vegetation coverage (2013-2015)

Type of Cover (Årea in km²)	2013	2014	2015
Secondary forests	88.61	91.08	96.60
Brushwood	40.59	39.49	28.84
Pastures	14.55	15.84	24.74
Total	143.75	146.41	150.18



Area of influence of the San Carlos Hydroelectric Power Plant.

In the Amaní and La Holanda greenhouses, located at the Miel I and San Carlos Hydroelectric Power Plants, trees of native species and others in danger of extinction are propagated from seeds collected in the forests of the reservoir buffer zones, which are delivered to the communities in the areas of influence for sowing and, in other cases, to enrich or improve areas that are degraded or devoid of vegetation in the same lots on our property.

In the areas under direct influence from our power plants, we find 95 species of wildlife<sup>43</sup> that are considered endangered according to classifications made by international and national organizations. Among these species are birds, mammals, reptiles, amphibians and fish. Of the total number of species reported, we recorded 55 endemic species of

- 40. The lots of the San Carlos and Jaguas Hydroelectric Power Plants form part of the Punchiná and San Lorenzo Forest Reserves, and part of the compensated area to the community from the Sogamoso Hydroelectric Power Plant Project was carried out in the Serranía de los Yariguíes National Park.
- 41. A restored area is a natural area where humans have helped to reestablish an ecosystem that has been degraded, damaged or destroyed. It is a deliberate activity that starts or accelerates the recovery of this area with respect to its health, integrity and sustainability, and also seeks to initiate or facilitate the renewal of these processes, which will return the ecosystem to its desired path.
- 42. A compensated area is one in which actions directed at effective conservation or ecological restoration of an ecologically equivalent area have been implemented, where a new category of management or permanent conservation strategy is created, or biodiversity conditions in transformed areas or those subject to processes of transformation are improved.
- 43. Since 2014, we only reported land animals registered on the official IUCN lists, and in the case of fish, we included those reported in the Red Book of Freshwater Fish of Colombia, 2012.

wildlife. The result was the same as that recorded in 2014, although in 2015 the International Union for Conservation of Nature (IUCN) continued to reevaluate some species and they have been recategorized. In addition, progress made in genetic studies on the species allowed for a precise classification of some of them, related to each other or having similar characteristics, in a way that eliminates some and combines others that were previously considered different. Finally, population studies allowed us to establish that some species have been recovering, and therefore, they have been recategorized, whether changing their status or being removed from the endangered species lists.

On the other hand, we found 47 species of endangered and/or endemic flora registered on the official IUCN lists, and in the Red Books at the national level. The number of species in this condition decreased compared to the previous year, due to the fact that they were excluded from the list of species in the LC (Least Concern) category, and only included the consultation and the verifications made on web pages and official entities<sup>44</sup>. This allowed us to obtain a list with a more precise filter and with official concrete evidence for verification. Finally, in our monitoring records, we found four undescribed species for which a common name was unknown.

Below is a record of endangered flora and fauna species from the last three years:

#### **Endangered Species (2013-2015)**

	2013	2014	2015
Fauna	93	92	95
Flora	96	104	47
Total	189	196	142



Sooty ant tanager - Habia gutturalis.



Learn more about endangered and endemic species that we protect in our areas of influence here.

44. www.tropicos.org; http://www.iucnredlist.org; Red Book of Plants of Colombia, volume 2, Palms, Espeletia and Zamias; Ministry of the Environment and Sustainable Development. Resolution No. 0529 / March 9, 2015; whereby lifting the ban is granted; Red Book of Plants of Colombia, endangered wood species. Par I; Red Book of Plants of Colombia, endangered wood species. Volume 4.

#### Regional coordination

All habitats affected by our operations were managed through activities aimed at conservation of biodiversity in partnership with actors in the territory, such as communities, institutions, universities and civil society organizations, among others.

In addition to managing the forests, we also work on improving environmental factors of the watersheds supplying our reservoirs and run-of-river power plants (without reservoirs) like the Amoyá River-La Esperanza Hydroelectric Power Plant.

We emphasize the conservation of the Selva de Florencia (Caldas), Las Hermosas (Tolima) and Serranía de los Yariguíes (Santander) National Parks, located in the upstream parts of the La Miel, Amoyá and Sogamoso River basins. We have worked on this strengthening process for seven consecutive years, which has allowed for better operation and application of the environmental management plans in these protected areas, and also has allowed us to mitigate the main distress or pressure that affects them.

Below, we report the progress we have made in each region's terrestrial and aquatic ecosystems:

#### Eastern Antioquia



O We strengthened risk, prevention and forest fire response management through projects with the municipalities of Granada, Santo Domingo and San Roque. We also entered into an Agreement with the Envigado Fire Fighter Corps that includes diagnostics, certified training and resources for the Volunteer Fire Fighter Corps in all of our areas of influence O We continued working, in partnership with CORNARE, National Parks, EPM, other entities and the local community to strengthen the Regional System of Protected Areas (SIRAP) for the Reservoir Subregion, through the development of projects such as: a communications plan, dissemination to the community and local actors about the Punchiná and San Lorenzo forest reserves, diagnostics and preparation for a proposal of alternative use of seeds of native forest species, strengthening of the apiculture activity and implementing the BanCO<sub>2</sub> program, a volunteer payment strategy for environmental services that allows companies, institutions and citizens to calculate and compensate for their carbon footprint through the conservation and restoration of natural forests, improving the quality of life of the people who live there.

In partnership with CORNARE, the Autonomous Corporation of Santander (CAS), the Autonomous Corporation of Caldas (Corpocaldas) and MASBOSQUES, we joined this strategy to support 87 families located in the areas of influence of the Calderas, Miel I and Sogamoso Hydroelectric Power Plants. We will also provide support to 20 families in the Guarinó River basin and the La Miel (Caldas) River basin.

- O We have made progress with the Jaime Isaza Cadavid Polytechnic institute, in the implementation of the recovery plan for the populations of sabaleta fish. The objective is to achieve spawning and fertilization outside of their natural habitat for future repopulation of the species in the Nare and Guatapé River basins.
- O We made an agreement with the firm ICTIOTEC to establish a population structure and nutritional and reproductive habitats for the blue cichlid, in the Punchiná and San Lorenzo Reservoirs, to validate the bans<sup>45</sup> proposed by fishermen in the area, which we signed under the framework of the Reservoir Fishing Management Plan.

<sup>45.</sup> A ban is understood as the temporary prohibition on hunting individuals of a certain species in a region. Article 257 of the Colombian Natural Resources Code (Decree Law 2811 / 1974).

## Energy of being a **Government and governmental entity**



Carlos Mario **Zuluaga** 

General Director

**CORNARE** 

"The communities feel that ISAGEN is close to them. We are achieving processes of peace, coexistence and conservation of natural resources supported in projects such as the Regional System of Protected Areas (SIRAP), which has allowed us to understand the needs of the communities in order for them to become real players, and through BanCO<sub>2</sub> which invests in a new dimension, so that along their value chain, companies can understand that conservation and protection of natural resources must transcend the regulatory framework".

#### Eastern Caldas



- O We finalized an agreement with CORPOCALDAS, which allowed for the assessment and understanding of the current status of the Cotton Top Tamarin populations. We also initiated a new collaborative effort for the conservation of this species.
- O We formulated and initiated the execution of the ecological restoration plan of the Manso Diversion and the conservation plan for the endangered species Gustavia romeroi.
- O We developed a strategy, in agreement with the National Parks (PNN), to connect the Selva de Florencia National Park, the Manso River Civil Society Reserve, the areas affected in the development of the 1% Investment for Water Use Program for the Manso Diversion Project and the lots we own over the diversion's tunnel connection. In this region, we developed the ecological restoration of terrestrial and aquatic ecosystems. With PNN, we conducted additional activities to prioritize in areas of environmental interest and micro-basins where we will develop activities of forest enrichment with protective species, isolation of the areas where there are streams removed and training sessions.
- We entered into a new agreement with CORPOCALDAS for the protection of biological diversity and natural resources in the La Miel River basin. Some activities that we performed are: production of 400 alternatives to efficient energy use with energy-saving stoves and timber gardens, supporting initiatives of basic sanitation with a total of 234 sanitation units and strengthening production processes with the installation of 42 home gardens, among others.
- O We have made progress in consolidating the biological study of the patalo, an endemic species of the Magdalena River, declared endangered at the national level, which will be fundamental for their captive management. We also achieved three reproductions of this species, which allow improving the protocol to accomplish this.

o We executed training, preparation, education and management activities with five fishermen associations. These activities were required to initiate their productive projects. We also restocked the La Miel River by planting 200,000 bocachico and 100,000 dorada fingerlings.

#### Santander



- O We acquired and delivered 1,484 hectares (40 lots) to the Serranía de los Yariguíes National Park, and we have, since 2013, conducted ecological restoration activities with Natural National Parks (PNN, for the Spanish original) and Natural Heritage in 4,057 hectares in this park. In 2015, we restored 58.57 hectares through a process that included planting 20,038 native tree species, constructing eight seasonal greenhouses and upgrading 17,600 linear meters of paths
- O We maintained 2.84 km² of vegetation coverage and planted 1.9 hectares with native tree species in the Topocoro reservoir's protective buffer zone of the Sogamoso Hydroelectric Power Plant.
- O We conducted activities to remove floating material in the Topocoro Reservoir, complying with the environmental license and the Environmental Management Plan (EMP) of the Sogamoso Hydroelectric Power Plant. In 2015, we removed 10,814 cubic meters of wood and 7,853 kilograms of vegetation material and recyclable, non-recyclable and hazardous waste, which we disposed of properly.
- O We planted 5 million bocachico and tilefish fingerlings. This project achieved a figure of 25 million planted fingerlings by December 2015. The fish have been released in their natural development and migration sites in the El Llanito Swamp, some tributaries to the Sogamoso River and the Topocoro Reservoir, and the tail-end areas of the Chucurí River and the Aguablanca stream.

- **o** We contributed to the recovery of around 1,200 hectares of land protecting water sources, construction of 205 efficient stoves, and setup of 300 hectares of agro-forest projects.
- O We rehabilitated and protected 300 hectares of forests on the riverbanks of the tributaries to the Sogamoso River, in order to improve the habitats and reproduction of migratory fish. In 2015, we produced around 25,000 saplings to reinforce and replace species.
- O We finalized the exploitation of materials for the construction of the Sogamoso Hydroelectric Power Plant in the Betulia municipality, and upgraded the resulting excavation areas with lagoons interconnected with the river to increase the area available to fish. The designs, plans and localization of the system were presented, assessed and approved by the competent environmental authority.

#### **Tolima**



We finalized the environmental education agreement with National Parks and National Heritage, which had the objective of joining forces to implement the Environmental Education Projects (PRAE) for the Álvaro Molina Educational Institute, from the Las Hermosas district in the municipality of Chaparral.

The following were the main results:

- Foundation of 28 ecological groups for each of the educational headquarters and an institutional ecological group.
- Construction of three greenhouses with the capacity to produce more than 10,000 seedlings per season.
- o Creation the Roundtable for Construction in Environmental Education in the Chaparral municipality, a work space between educators and National Parks to join forces for the conservation of the territory.
- Learn about the management task to protect hydric resources here.

## SUSTAINABLE PRODUCTION AND PRODUCTIVE RECONVERSION



- O We contributed to processes of biocommerce<sup>46</sup> that sought to promote community initiatives starting from the responsible use of biodiversity.
- O We executed the tourism planning project in eight municipalities, which includes the Eastern Caldas and Magdalena River Basin subregions. We made progress in formulating municipal tourism plans and the Regional Tourism Plan with which we contributed to the execution of the Tourism Public Policy in the department of Caldas.
- O We continued the participative environmental management process and the promotion of agroecology<sup>47</sup> in the Guarinó River basin, within the framework of the Comprehensive Action

Tourist Planning Project of Eastern Caldas and Magdalena Caldense.

In Eastern Caldas, we specifically developed initiatives that stimulate the transformation of production activities on land and the use of biodiversity as a source of competitiveness under economic, environmental and social sustainability criteria, in the area of influence of our Miel I Hydroelectric Power Plant and Guarinó and Manso diversions. Below are the main results:

- 46. Biocommerce is the set of activities of harvest or production, processing and marketing of goods and services derived from native biodiversity on the basis of environmental, social and economic sustainability criteria.
- Agroecology is the application of the concepts and principles of ecology to the design, development and management of sustainable agricultural systems.



Community Fair of the Guarinó Comprehensive Action plan (CAP).

Plans (CAP) for the municipalities in North Tolima. This project seeks to identify strategic actors in the jurisdiction of three municipalities to prepare a baseline for intervention, construct energy-saving stoves and timber gardens.

- **o** We made progress, through coordinated management with CORPOCALDAS, in protecting biological diversity and natural resources in the La Miel River basin that contribute to the sustained provision of ecosystemic goods and services.
- o Alongside the Vivamos Mejor Corporation, we planted 3,800 native tree species on individual lots located in the area of influence of the Amaní Reservoir. The objective is to generate changes in the use of the soil and to contribute to knowledge for the production of wood from forest species.
- **o** Through an agreement with the Caldas Government and the Campo Verde Foundation, we improved the profit and drying system for cacao in three municipalities. Furthermore, we provided technical assistance for the renovation of 80 non-productive hectares of this crop.
- O We made progress in executing projects together with Cortolima and Corpocaldas that seek socio-environmental recovery of the Guarinó River basin, which are included in the Comprehensive Action Plan (CAP) for the river, as well as the land-use planning and adequate management of the watershed.

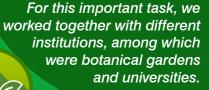
## BASIC AND APPLIED RESEARCH

In Eastern Antioquia, Eastern Caldas, Magdalena Medio and Tolima, we conducted research to increase knowledge of the fundamental principles of nature and apply the scientific knowledge to human needs and technological development. Below, we share the following initiatives in this line of work:

- o In agreement with the University of Antioquia, we made progress in conducting a study to assess the effect of landscaping at the Jaguas and San Carlos Hydroelectric Power Plants on the genes, populations and communities of terrestrial vertebrates that inhabit the forests protected by the company, to contribute to these species' survival.
- o We entered into a contract with the National University of Colombia to study the forests located in the lots of the Miel I, San Carlos and Jaguas Hydroelectric Power Plants.
- o We continued, with the University of Caldas, monitoring vegetation coverage and animals at the Miel I Hydroelectric Power Plant and the Guarinó diversion, which includes an analysis of the occurrence of changes because of the speed of deforestation/ reforestation, geographical expansion and social reasons.
- o In collaboration with the firm Faunativa, we made progress in preparing fauna guides for Eastern Antioquia, and a flora guide for Magdalena Medio with the University of Antioquia.
- O We conducted studies of vertebrate wildlife, conducted in Eastern Caldas and Southern Tolima in agreement with research groups from the Universities of Caldas and Tolima, generating significant results used for graduate theses at the undergraduate and Master's levels, which were presented to specialized congresses and symposiums.

#### Flora and fauna guides

With the illustrated flora and fauna guides developed in each region, we recorded the wealth of our country, expanding on the information about the species and we generated scientific knowledge. This was transformed into research and international consultation material, and is also a pedagogical tool that supports our environmental education programs.



### ENVIRONMENTAL EDUCATION



Environmental Education Program (PREDA, for the Spanish original) with the educational communities in the Magdalena medio area of influence.

In the training sessions for the Environmental Education Program, we promoted the adoption of good environmental practices among the employees, contractors, communities in the areas of influence, educational institutions and environmental organizations, so that they could be applied in daily life and contribute to the protection of natural resources and sustainable development. The participants join workshops provided at various times throughout the year.

The following tables show the results during 2015:

#### Attendance of environmental education workshops 2015 Communities in Areas of Influence

	Persons Trained	Training Hours
Miel I Hydroelectric Power Plant (Guarinó and Manso River Diversions)	3,542	1,047
Amoyá Hydroelectric Power Plant	2,168	12
San Carlos, Jaguas and Calderas Hydroelectric Power Plants	1,157	852
Sogamoso Hydroelectric Power Plant	879	396
Termocentro Power Plant	455	364

#### Attendance of environmental education workshops 2015 Employees, contractors and Army personnel

	Persons Trained	Training Hours
Miel I Hydroelectric Power Plant	1.726	214,5
San Carlos Hydroelectric Power Plant	1.554	223
Amoyá Hydroelectric Power Plant	622	45
Sogamoso Hydroelectric Power Plant	1.243	84
Jaguas Hydroelectric Power Plant	984	86,9
Calderas Hydroelectric Power Plant	349	40
Termocentro Power Plant	604	54,5
Medellín	204	9

The topics addressed during the workshops with educational institutions and the communities are environmental diagnostics, the relationship of biodiversity to the educational environment, citizens' coexistence, solid waste management, organic compost, greenhouses and agroecological techniques, reforestation and care of natural resources, local flora and fauna, among others. With the employees and contractors, we discussed the following topics: Environmental Management System, environmental simulations, comprehensive management of solid and hazardous waste and chemical substances, organic agriculture and snake handling, among others.

Our commitment to promote environmental education is also reflected in efforts to sensitize the citizens about the conservation and construction of ecosystems for the wellbeing of all Colombians. Through the initiative "United for the forests," led by the United States Embassy in partnership with the Natura Foundation, we promote the reduction of the high rates of deforestation and the accelerated loss of biodiversity. We contributed to this initiative with a donation of \$212,000,000 in 2015.

## Energy of being a **Government and governmental entity**



Jorge **Ceballos** 

Director of Eastern Andean Territories

**National Parks** 

"There is an experience that should be of historical reference for the country at the Las Hermosas Canyon. The Chaparral and Río Blanco municipalities have historically been a region of armed conflict in Colombia, and we enter this area in partnership with ISAGEN, working through environmental education to create a proposal to learn about and create an identity for a protected national area such as Las Hermosas Natural National Park".



## 2016 CHALLENGES

- O Evaluate the ecological integrity of the forests located on Company premises in the areas of influence of the Jaguas, San Carlos and Calderas Hydroelectric Power Plants in Eastern Antioquia, for the 2016 2018 period, in order to maintain the biodiversity and for these ecosystems to continue providing natural goods and services for the region.
- O Assist in the process of implementing the Regional Tourism Plan of the Department of Caldas, as an attractive destination due to its nature, with activities including hiking, birdwatching and contemplation in the Amaní Reservoir protection area of the Miel I Hydroelectric Power Plant, in order to contribute to the development and the conservation of biodiversity in the region.
- O Continue to strengthen the Regional System of Protected Areas (SIRAP) of the Reservoirs Subregion in Eastern Antioquia, and completing the first phase of execution for the environmental management plans in the Punchiná and San Lorenzo forest reserves, and initiating the second phase in order to conserve the protected areas and their biodiversity.
- O Continue with lot maintenance activities on the riverbanks of tributaries to the Sogamoso River in Santander, until we obtain vegetation formations that subsist without technical assistance, and develop processes of researching native fish species such as the bocachico, doncella, tilefish, and the cat fish, for their conservation.
- O Teamwork with the different Environmental Autonomous Corporations to construct the POMCAS of the watersheds supplying our reservoirs.

Ecological integrity: is the characteristic of an ecosystem to function in a healthy or appropriate manner and, consequently, provide natural goods and services and maintain biodiversity



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(Social management)

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Self-management training and community development

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2016 Challenges



Claudia Lucía Álvarez
Environmental Director
Energy Production

"We contribute to improving the quality of life of the communities in our areas of influence, so we develop programs to leave installed capacities in the regions, strengthen the social fabric and contribute to territorial development, in such a way that we fulfill our greater purpose: By generating smart energy, we contribute to society's prosperity".



## 2015 MILESTONES

105 community organizations participated in the Community Development School. 1,235 leaders were trained to develop their productive projects. 79 community projects are being executed. 88.2% was the outcome of the indicator measurement for training in self-management that allows for learning about how communities have acquired lessons. 1,965 jobs were created in the areas of influence of the power plants in operation, of which 85% correspond to the local and regional labor force. \$50,185 million were paid to municipalities and regional autonomous corporations in Legal Transfers. 218 informative meetings held with 6,848 participants. A regional plan and eight tourism municipalities were formed in collaboration with the Government of Caldas and the Corporation for the Development of Caldas (DCD).

In the relationships built as a result of the genuine dialog with communities, organizations and institutions, we recognize invaluable experiences and lessons that, in addition to maximizing opportunities for development, offer tools for reaching agreements through listening and respect. We began with the understanding that reality in each territory has many manifestations, and the first step is an exercise of approaching it, traversing it and living it, through daily life and with its people. That is when its potential is measured, and opportunities to work together in the interest of progress, with wellbeing for all, are identified.

In this chapter, we present the main focal points of work in social management with practices and results that reflect the most significant advances made during 2015 in all of our areas of influence, taking work at the social dimension as a baseline:

With the goal of defining intervention priorities in the social sphere, we involved local actors, identified impacts, risks and potential, as well as the conditions of the surroundings.

We have a baseline for the communities in the areas of influence of the Miel I electric power plant, with its Guarinó and Manso diversions, and the San Carlos, Jaguas, Calderas and Termocentro electric power plants; it was a study that included collecting socioeconomic information in 167 districts.

Also, for Sogamoso, there is a baseline that addresses the nine municipalities in the area of influence of the power plant, which has now been in commercial operation for one year. The area of influence of the Amoyá Hydroelectric Power Plant has been identified from a socioeconomic perspective within the project's Environmental Impact Assessment and a social diagnosis was included to formulate the Development Plan for the Las Hermosas Township.



Click here to learn more about:

- Approach to and criteria for environmental management
- Physical, biotic and social impacts of environmental management plans

### PARTICIPATION AND DIALOG



Community Awareness and Participation Program with the community of the Delgaditas district in Samaná, Caldas.

We respect the right of all people to information and civic participation in order to play an active part in all matters that could alter their present and future, or put it at risk. Our commitment is to strengthen relationships with communities, organizations and institutions, providing information and mechanisms of dialog for decision-making.

## Community awareness and participation program (PIPC)

We apply the Methodology for Planning and Participative Action (MPAP) in our management, and through the PIPC, we encourage spaces for information, consultation, negotiation and learning.

Through the media Encomunidad, which includes radio, bulletin boards and printed bulletins, we inform about our management in the different regions. In 2015, we held 218 informative meetings with 6,848 participants, in which we addressed topics such as: progress made in implementing environmental management plans, generation of employment, payment of Legal Transfers and taxes, contribution to the development of the territories, among others. We also hosted 122 guided visits to our electric power plants.

#### Inter-institutional roundtables

In Eastern Antioquia, we continue to strengthen the Inter-institutional Roundtable for Environmental Management in the Reservoirs Subregion and, for this reason, we created a Coordination Committee to improve its collaboration.

During 2015, a strategic planning conference took place, which served as a basis for subscribing to an agreement between EPM, CORNARE, the Universidad Católica de Oriente and ISAGEN to activate the roundtable. We held three conferences throughout the year with an average attendance of 32 people per conference.

In the area of influence of the Amoyá (Tolima) and Termocentro (Santander) electric power plants, we held the first meeting of the inter-institutional roundtable in order to strengthen collaboration with the public, business and institutional sectors to improve socioenvironmental management in the territory.

In Tolima, this first conference had 31 participants, and in Santander, it was attended by 14 representatives from different local and regional entities and encouraged the commitment and willingness to maintain this space for relations as a scenario for reflection on the regional challenges and collaborative work.



Inter-institutional roundtable in the municipality of Mariquita, department of Tolima.

For its part, the Inter-institutional Roundtable of Eastern Caldas and Northern Tolima allowed for dialog among different institutions that are present in these territories and that, from their tasks, contribute to development and environmental sustainability. Throughout the year, we held three conferences with a total of 69 participants.

Finally, in the Sogamoso Hydroelectric Power Plant's area of influence, we held meetings for the Betulia Roundtable, a space for dialog in which we interacted with the City Hall of this municipality, leaders of the community action boards and representatives from the associations of four small villages to review progress made in the areas of basic sanitation, aqueducts and sewer systems, local employment, projects with associations and training processes, among others.



Learn more about the mechanisms of communication and dialog with our communities in the areas of influence here.



# SELF-MANAGEMENT TRAINING AND COMMUNITY DEVELOPMENT

Our management is also based on the methodology of learning by doing, looking for the communities to become participative populations and self-managers of their own sustainable human development. Taking this focus as a base, we strengthen knowledge and skills to head projects and enterprises.

# Community Development Program (CDP)

The program was founded 15 years ago and includes training through the Community Development School and the implementation of projects to put the lessons learned into practice through a comprehensive and participative exercise. The projects are created by the communities themselves, with the participation of women, men and young people, through the diagnosis and prioritization of their needs and the construction of problem trees, and the objectives to address them. These become the path to learning, in terms of practical and real

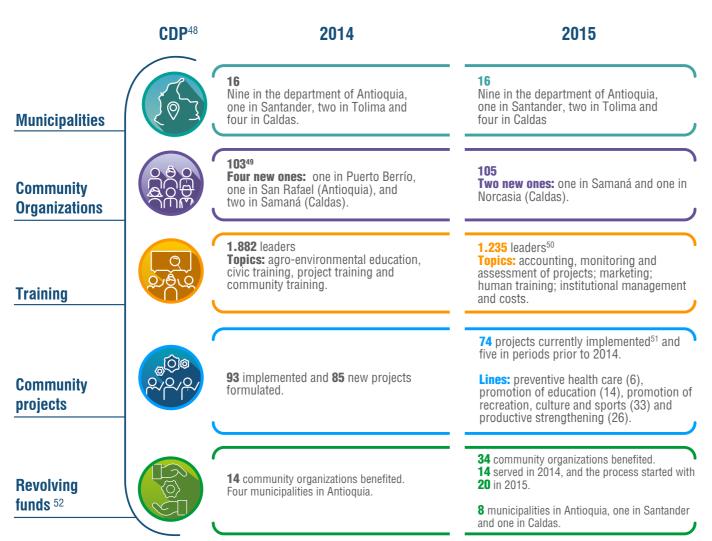


Delivery of Community Development Program certificates to the inhabitants of Norcasia, San Miguel, Perico and La Dorada in Caldas.

cases that include the exercise of planning, implementation of activities, management of economic resources, institutional coordination, conflict management, community participation and monitoring and assessment of activities, among other topics.

Below, we present the most relevant results in 2015 from this program that we developed in the departments of Antioquia, Caldas, Santander and Tolima:

#### Results of the Community Development Program (CDP)



- 48. Withdrawals from the CDP by the Community Action Boards are not presented.
- 49. The 2014 Management Report included an involuntary error in the data reported as far as the number of organizations in attendance (107, including four new ones). The data was corrected in this report and corresponds to 103, including four new ones. For 2015, the variation in the number of organizations (105) is due to the involvement of two new organizations.
- 50. The number of leaders trained between 2014 and 2015 varied (647 less) because that was the year the community development projects were implemented which the communities formulated in 2014. The training topics were mainly reviews of topics that are indicated in the table.
- 51. The variation in the number of projects implemented in 2015 with respect to 2014 is 14 less, and the data should include the approved projects that had technical, economic and organizational viability. In 2015, new projects were not formulated, given that the dynamics of the CDP establishes a year for formulation (2014) and the following year for execution (2015). In 2016, the formulation of projects will again be done for implementation in 2017.
- 52. The revolving funds are community initiatives created from projects and donations from public and private entities, or as an initiative of the communities themselves, aimed at mobilizing local resources to provide credit to a population that faces difficulties accessing the normal financial system.

We emphasize the strengthening of agricultural activities by supporting productive initiatives for tomatoes, coffee, sugar cane, blackberries and beans, with special emphasis on the training of producers in Good Agricultural Practice (GAP).

We also highlight the interest of the communities to protect and conserve the environment, by prioritizing community initiatives related to isolation and reforestation in micro-basins, and community ecological trails.

# Indicator of training in self-management

This indicator allows us to understand the evolution of the lessons learned by the communities participating in the Community Development Program (CDP) through training in self-management and the execution of their projects. The indicator evaluates the progress in the training process, the achievement of two major program objectives and the three criteria included in each of them.

The first objective consists of the sustainable human development of the communities, which includes the criteria of participation, community benefit and viability. The second objective consists of their self-management capacity, which includes the criteria of training, co-financing and coordination, monitoring and follow-up.

To measure the indicator in 2015, we applied the methodological instruments on 660 individuals linked to community organizations participating in the Community Development Program (CDP) in the departments of Antioquia, Caldas, Santander and Tolima.

The size of the sample was the same as that defined in 2014.

The methodology used was a structured survey with closed questions, applied in printed form and in interview form, between the months of November and December 2015. Below are the results for the last three years:

#### Results of the indicator for self-management training



The result of this indicator in 2015 is in reference to the evolution or change of the six assessment criteria in the two objectives for the Community Development Programs as compared to the previous year, using a base number of persons from the sampling selected and the goal defined by the Company..

In 2015, we obtained 88.2%, which was very close to the goal set of 90%, according to the evaluation criteria. Even though we did not achieve our goal, the result obtained put us in the range of high performance, which is between 85% and 100%. Although there has been a variation in the last two years compared to 2013, it is important to note that the structure of the survey has been adjusted, incorporating new elements of analysis to achieve greater precision in issues relevant to the measurement of the indicator

# Energy of being a Community in area of influence



Calixto **Rivera** 

Vice President of the LLanito Fisherman's and Fish Farmer's Association (APAL)

Barrancabermeja (Santander)

"With ISAGEN, we have not had any clashes, there has always been a dialog, close communication with which we have achieved the results that we are seeing in the swamp, like the planting of fish".



David **Botías** 

Leader of the Marta district

Girón (Santander)

"ISAGEN brings jobs, collaboration in health care programs, education programs, and as for the environment, it has received special treatment, just like the productive projects that generate wellbeing among our communities".



#### Isbelia **Mejía**

Tourism and Fishing Association of the Marta district

Girón (Santander)

"The course at the Providers School with the EAFIT University was very important because it addressed topics of vital interest to our associations".

# INSTITUTIONAL COOPERATION AND STRENGTHENING

We developed joint initiatives with local and regional institutions from the various areas of influence to construct planned and sustainable territories. During 2015, we highlighted the following actions:

# Eastern Antioquia



- O We contributed to the endowment of the Children's Development Center for the El Jordán township in the municipality of San Carlos, which benefited 150 children. We also executed a program on sexual education and child abuse prevention in 35 districts, which led to increased reporting, as well as the implementation of a path to assistance.
- O We contributed to the ONDAS program of Colciencias, operated by the Antioquia Center for Science and Technology (CTA), comprising 30 school research groups, with the participation of 288 students and 120 teachers in eight municipalities to promote science, technology and innovation in early childhood. During 2015, 15 new groups entered from rural areas in three municipalities. We also contributed to provide around 350 adults, from rural areas in six municipalities, with a primary education certificates through radio assistance and tutorships held by rural high school students from the Educational Corporation for All-round Development (COREDI, for the Spanish original).
- O We developed an agreement with the Santa Ana Children's Hospital to support nutritional assistance and recovery for children. In 2015, we

- focused on the transfer of knowledge to medical personnel, teachers, community mothers and educators in the municipality of San Carlos for early identification of malnutrition and its prevention.
- O We made progress in strengthening 15 community action boards in the municipalities of San Roque and Santo Domingo (Porce-Nus zone) in partnership with the Corporation PDP in Eastern Antioquia (Prodepaz). We performed an analysis of organizational characterization for 14 of the 15 boards in attendance.



Workshop for the prevention of childhood malnutrition in the municipality of San Carlos, according to the ISAGEN - Santa Ana Children's Hospital agreement.

- O We participated in the improvement of community houses for the community action boards in four districts, in collaboration with the municipality of Concepción. We also held training sessions with the communities on waste management and the use of natural resources. We also contributed to implementing bean lots for 20 families in one district, and training sessions in Good Agricultural Practice (GAP) and environmental practices.
- O We executed the physical and structural adaptation of a community center in the municipality of Alejandria, in partnership with the Community Action Board – Urban Center Board. This action allowed for recovery and delivery of a space in optimal conditions.

- training of the communities in seven districts of the Las Hermosas township.
- We improved, in partnership with the Chaparral City Hall, tertiary roads in the Las Hermosas township and the urban road network.
- **o** We supported COAGROHERMOSAS in establishing a community charity to facilitate the processing of coffee in the Las Hermosas township.
- O We signed an agreement with the Community Action Board of the San Pablo district in the Las Hermosas township to improve the sewage system.

### **Tolima**



• We contributed to formulating the Development Plan of the Las Hermosas Township, in participation with ASOHERMOSAS and the assistance of Javeriana Pontifical University. In this document, the projects prioritized by the community are defined, and from there it orients and serves as a guide for managing the community, local institutions, other organizations and the company.

It has three strategic areas: human rights – the right to territory, agroecological production and organizational strengthening. Also, in partnership with the same university, we developed a strategy to train and strengthen the community through the Course on planning, management, establishment and organizational strengthening of the Development Plan.

O With the San Juan Bautista Parish, we developed the "Rural and Territorial Pastoral" ("Pastoral rural y de la tierra," for the Spanish original) project, whose purpose is to strengthen the human fabric and agroecological



Chaparral, Tolima. Photography by Jesús Abad Colorado.

## Magdalena medio



- O We worked with the Puerto Olaya and San José educational institutions in the municipality of Cimitarra in an initiative, directed at 300 students, to create spaces for training in sexual and reproductive health, preventing consumption of psychoactive substances and environmental education.
- o We collaborated with the San José Educational Center in the municipality of Cimitarra through the program "Through play, we recycle, learn and apply" to encourage care for the environment, by training 215 students in the adaptation of ecological points and recreation spaces.
- We entered into a joint agreement with the municipality of Puerto Berrío that allowed for a crew of 53 assistants to mobilize the disabled population.
- **o** We joined forces with the Community Action Board (CAB) of the municipality of Cimitarra to push a proposal to avoid the loss of diversity because of the impairment and desiccation of the Sandovala spring.

#### Oriente de Caldas



- O We joined forces with four municipalities to improve the educational and cultural infrastructure, strengthen culture and folklore and improve the access roads and distribution networks of potable water for some communities.
- We initiated an investigation with the Program of Studies and Control of Tropical Diseases (PECET) under the University of Antioquia, to assess and control the cutaneous leishmaniosis and dengue in the Miel I Hydroelectric Power Plant's areas of influence.
- O We paved the Norcasia Berlín road with the Government of Caldas, as well as performing routine maintenance, improvement works and stability of the road network in Eastern Caldas.
- O We executed the program of deeding land in the Buenavista township in the municipality of La Dorada, a project made possible through the Immediate Action Plan (IAP) partnership with the City Hall of La Dorada and the Government of Caldas



 We expanded and remodeled the emergency services department of the San Simón Hospital in the municipality of Victoria.

#### Santander



- We consolidated mechanisms of information, participation and negotiation with the Fishing Roundtable. We strengthened the organization and business of the fishing sector through an agreement with ASOPESAMM that bound the 11 fishing associations downstream from the Sogamoso Hydroelectric Power Plant to the mouth of the Magdalena River, in a contract with the Magdalena Medio Regional Studies Center (RSC), which included the formulation of a training plan and psycho-social counseling, organizational participative diagnosis, 11 strategic action plans, the creation of eleven production initiatives, a regional production project and the systematization of the process.
- O We supported the organizational strengthening of 23 local businesses with the Course through the Providers School, in coordination with the EAFIT University, a training process that last 66 hours and provided new businesspeople with management tools in the development of their business and to take advantage of the opportunities offered by the Sogamoso Hydroelectric Power Plant in the area of influence.
- O In 2014, we finalized the relocation of 185 families (100%) from the Sogamoso Hydroelectric Power Plant's area of influence, who were part of the Program to Restore Living Conditions for Relocated Communities. These families lived on lands needed to carry out central works at the reservoir, and they were identified through a land and socioeconomic census. The Program included delivery of a lot equivalent to the families' current lot with a minimum of five hectares, a new or improved home, a production project, legal and psycho-social counseling, social infrastructure and access roads.

In 2015, with the relocated population, we made progress in completing the implementation of 82 productive projects and we also initiated the deeding process for the lots and homes. Another important activity was the consolidation and formalization of three Community Action Boards and two Aqueduct Boards of Directors (JAAC) on three lots. The activity included training in administrative, organizational and rate-related topics, as well as appropriation activities for the community spaces, among others.



 We created the Reservoir Management Plan (RMP) for the Sogamoso Hydroelectric Power Plant on the alternative uses for energy generation in the reservoir.

The RMP was created using a study and in stages, through a contract with Fundación Humedales. It also had the participation of communities, social organizations, companies, businesspeople, entities and authorities, who set their expectations, interests and initiatives in workshops and meetings.

We delivered the final document to ANLA for it to be established as a valid instrument for the competent authorities to make decisions regulating the different uses.

- o We delivered to INVIAS the Bucaramanga-Barrancabermeja replacement road, the Geo Von Lengerke bridge to the municipality of Betulia, and the Montebello and Peñamorada connections of the Lisboa-La Cananá road to this municipality and to Zapatoca.
- O We reviewed and updated, in partnership with the department of Santander, the territorial management plans and outlines of three municipalities located upstream from the Sogamoso Hydroelectric Power Plant.

# Other joint initiatives

- O We continued promoting educational inclusion, and strengthening associations of people with disabilities, in a joint effort with Fundación Integrar. This project is developed in the municipalities of San Rafael, Puerto Berrío, Alejandría and San Carlos.
- O We held a third conference with teachers, in which they presented 10 significant experiences about social inclusion, recognizing the role of educators and the collaborative effort required in educational inclusion, for the municipalities of San Rafael, San Carlos and Alejandría in Antioquia and Cimitarra in Santander, which were published in the book, "Success stories of educational inclusion."

- O We developed, in partnership with the Museum of Antioquia, and for seven consecutive years, the "Travelling Museum" ("Museo Itinerante," for the Spanish original) program, bringing it to 14 municipalities in our areas of influence in Eastern Antioquia, Magdalena Medio and Eastern Caldas. Through this program, 28 cultural leaders have been trained, which have promoted the rootedness and sense of belonging through local heritage.
- O We continued the partnership with the Fundación Mahavir Kmina to provide the population that had lost lower limbs the chance to walk again. During 2015, 18 prosthetics were fabricated and delivered to people in the areas of influence of the power plants in operation, and we monitored those assisted in periods prior to this collaboration.
- O We contributed to financing and implementing solar solutions for the communities for lighting, communications and refrigeration in five localities in the department of Nariño and three in Valle del Cauca, within the framework of the Colciencias-IPSE-Fiduciaria de Bogotá agreement, an initiative sponsored by the Inter-American Development Bank (IDB).



Mahavir Kmina Foundation. Museum with prostheses that have been used in order to raise awareness on this topic and create a space for its history.

# HUMAN RIGHTS AND BUILDING PEACE



Our management of human rights and support in building peace is grounded in a policy of human rights, coordination with local, national and global initiatives and a focus on prevention in areas where our electric power plants are in operation, and we construct projects and place emphasis on training spaces with interest groups, among other practices. As a result, we have seen the respectful management of rights and liberties of the communities in the areas of influence and other stakeholders

Learn more about managing human rights and peace initiatives here.



# GOOD NEIGHBOR ACTIONS

We are neighbors to all communities nearby to our power plants and projects, so we seek to improve their quality of life and to grow together. Below is information highlighted in 2015:

#### Job creation

We defined strategies to give priority to hiring workers and providers that inhabit the areas of influence of the electric power plants. The employment figures that we present below include both the skilled and unskilled workforce.

#### 0

#### Employment<sup>53</sup> 2015

Power Plant	Local	Regional	National	Total
San Carlos	169	63	10	242
Calderas	38	24	16	78
Jaguas	23	104	19	146
Miel I	400	28	88	516
Termocentro	31	8	2	41
Amoyá	52	7	21	80
Sogamoso	533	191	138	862
Total	1,246	425	294	1,965

Employment is calculated using the formula person per year, local, regional and national:

Local Person/Year: number of days worked x local employees

360

Regional Person/Year: number of days worked x regional employees

360

National Person/Year: number of days worked x national employees

360

Of the total jobs created in 2015, 85% correspond to the local and regional labor force.

In the areas of influence of the San Carlos, Jaguas and Calderas Hydroelectric Power Plants, we implemented the Local Employment Management Plan, included in these plants' environmental management plans, with the goal of ensuring that labor opportunities are equal and transparent. Even though employment management is not a legal requirement in the Termocentro, Amoyá, Miel I and Sogamoso Hydroelectric Power Plants, we continued to work with the communities to prioritize and improve the local labor force and the procurement of local providers in each of the plants, which invigorates the economy in these regions.

During the construction of the Sogamoso Hydroelectric Power Plant, between 2009 and 2014, we implemented a mechanism for employment management together with the community and institutions in the area. On average, 60% of the personnel who worked on Power Plant construction and 50% of the 650 firms involved in this phase were from Santander.

<sup>53.</sup> Employment data reported for the Sogamoso Hydroelectric Power Plant include personnel hired for activities to complete the Power Plant Construction Project, as well as jobs created during the first year of the Power Plant's operation phase.

In 2015, during the transition from the construction phase to the operation phase, we continued to offer employment opportunities to the communities in the area. At the end of the year, a total of 862 people were employed by the Sogamoso Hydroelectric Power Plant, of whom 456 were working on the closure of the construction phase and the remaining 406 were engaged in activities related to plant operation and maintenance.

Of the total number of employees at the Sogamoso Hydroelectric Power Plant, 533 were of local origin (62%), 191 of regional origin (22%) and 138 of national origin (16%). Along these lines, the total local and regional labor force procured out of all jobs created during 2015 made up 84%. The consolidated data show that the decrease in jobs created has been gradual.

# Delivery of school kits

We delivered 13,459 school kits to children in the schools in the areas of influence of the electric power plants in operation.

#### Delivery of school kits in ISAGEN's areas of influence 2015

Power Plants	School kits
Miel I and Diversions	3,587
Termocentro	3,110
San Carlos, Jaguas and Calderas	2,257
Amoyá	1,100
Sogamoso	3,405
Total	13,459

We also provided access to technology to rural communities in the municipalities of San Carlos, Granada and Puerto Berrío (Antioquia), Cimitarra (Santander), Norcasia, Victoria and La Dorada (Caldas),



Delivery of school kits at the San Gerardo María Mayela Educational Institution in Norcasia (Caldas).

Mariquita, Honda and the Las Hermosas Township in the municipality of Chaparral (Tolima), by delivering 198 computers in good condition, that were no longer being used by the company.

# Health brigades

Through an alliance made with the Colombian Civil Air Patrol, we created a medical health brigade in the municipality of Samaná (Caldas), which benefited more than 700 people in the urban and rural areas of the municipality. There were 1,311 specialized medical assistance services provided, in addition to providing consultations and taking biopsies to diagnose cervical cancer. On the other hand, we signed an agreement with San Juan de Dios Hospital in the municipality of Betulia, located in the area of influence of the Sogamoso Hydroelectric Power Plant, to create four health brigades in four small villages. In total, 937 medical assistance services were provided.

# LEGAL TRANSFERS

We disclosed the amounts that we paid for Legal Transfers<sup>54</sup>, as well as the uses of those resources by the municipalities and corporations pursuant to law. This disclosure was made during meetings for Community Awareness and Participation Program (PIPC) and the Encomunidad media.

In 2015, we paid \$50,185 billion to municipalities and regional autonomous corporations in Legal Transfers. We also signed agreements with regional autonomous corporations and municipalities so that these transfers could be invested in watersheds in the area of influence. We found some of the community projects financed with transfer resources from the electricity sector in Eastern Caldas with Comprehensive Action Plans (CAP) for the La Miel, Guarinó and Magdalena Rivers. This initiative for fishermen and social organizations supported by CORPOCALDAS seeks to overcome environmental conflicts through participation and agreement.

Learn more about Legal Transfers here.



<sup>54.</sup> Legal Transfers are the funds that the electric energy companies have to provide to the municipalities and regional autonomous corporations to use natural resources, such as water. The municipalities receiving the transfers from the electricity sector are those who make up part of the watershed areas and flood zones of the reservoir, which are defined by the national or departmental property registry authority. At least 50% of the funds from transfers should be invested in projects for potable water, basic sanitation and environmental improvement.



# 2016 CHALLENGES

- o Construct relationships based on trust with new municipal and departmental administrations through the Community Awareness and Participation Program (PIPC) and other conference spaces such as Inter-institutional Roundtables.
- O Maintain the Municipality Administrative Capacity Support Programs in the use of Legal Transfers from the electricity sector with new city halls, regional autonomous corporations and communities.
- O Implement the Community Development Program (CDP) in the Sogamoso Hydroelectric Power Plant's area of influence and strengthen compliance with the self-management training objective for community organizations currently participating in the CDP.
- O Update the social baseline data for our areas of influence to learn about their progress.
- O Actively participate through coordination with the different actors in the region for the appropriate implementation of the Topocoro Reservoir Management Plan (POE) of the Sogamoso Hydroelectric Power Plant, in order to invigorate its contribution to regional development.



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2016 Challenges



John Jairo **Bolívar**Director
Human Management

"The reflections and lessons throughout our entrepreneurial history gave rise to the conception of business. We are human beings and we understand that the employee is, first and foremost, a being with a spirit, soul, body and mind, with the ability to transform his own reality and that of the world around him. This understanding brings us to define, as a central axis of our Comprehensive Human Resources Model, the employee seen as an integral person: unique, dynamic, responsible and relevant".



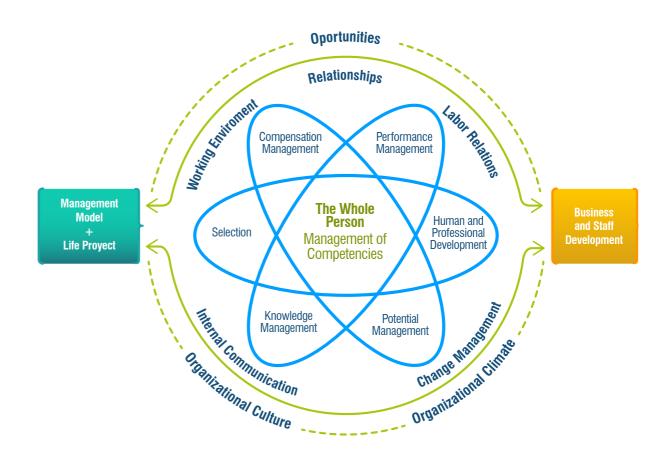
# 2015 MILESTONES

- 382 employees could change their work schedules and to work from home with the Flexwork initiative.
- 341 employees received assistance in the interrelations workshops, and Upper Management concluded a program to strengthen conversational skills.
- 50 courses were given at the Corporate School to 376 attendees, and 663 workers received external training sessions to apply the knowledge to the requirements of their job.
- 16 technical documents, five lessons learned and 10 innovative ideas were the outcome of the fourth version of the Technical Innovation Workshops, in which our employees participated.
- 49 volunteers, including employees and their families, participated in planting 246 native trees in a Colombian forest reserve.

In order to make work a true opportunity for collective and individual development, we have implemented a Comprehensive Human Management Model (MIGH, for the Spanish original), which respects diversity, seeks coherence between performance and corporate objectives, ensures transparency and compliance with human and labor rights, and facilitates self-development for employees.

The following are the most significant human resources achievements in 2015:

# COMPREHENSIVE HUMAN RESOURCES MODEL



# HIRING

Our selection facilitate processes incorporation and promotion of Human Capital with equal and transparent criteria and procedures based on people's competencies. We begin our selection process with internal candidates, to provide them with opportunities for development and reduce costs of recruitment, orientation and training. Within the processes that the external and internal candidates take part in, we give priority to the internal candidates, provided that they meet the competency adjustment required.

In 2015, 37 new employees joined the Company and 13 retired, and 20 internal employees moved to other positions, totaling 57 selection processes in which 118 people were evaluated. Power plant personnel increased by 3.93% in 2015, compared to the previous year, for a total of 686 employees.

#### **Results of the selection processes**

	2013	2014	2015
Employees promoted	51	29	20
Outside associates	49	48	37
Personnel evaluated	366	171	118

Of the external associates, 14% belong to one of the vulnerable groups targeted in Law 1429 for job creation: people under the age of 28 or women over 40 that have been unemployed for the last 12 months.



Learn about labor indicators of employment at the plant here.

# Personnel on a Mission, SENA Apprentices and University Interns

We use the figure of personnel on a mission, which is authorized and regulated by Colombian law, to address specific work needs for a specified period. Moreover, in compliance of the law and with the aim of driving development for new technicians and professionals, we sponsor internships for SENA apprentices and university students who help perform certain special tasks or new projects.



#### Number of employees on a mission, SENA apprentices and university students

	2014	2015
Employees on a mission (average)	31	34
SENA apprentices	48	32
University students	85	99

#### Orientation

We provide the information and knowledge necessary to our employees to facilitate their labor and personal adaptation to the company, so that they can fulfill their employment responsibilities harmoniously and efficiently. In 2015, we held three orientation processes for 30 nonmanagement employees and two orientation processes for 99 university students.

# PERFORMANCE MANAGEMENT

In facilitating the personal and professional development of our employees, and in aligning their contribution to our corporate purposes, a skills-based performance management system was implemented, aimed at personnel development that supports the planning, monitoring and assessment of work commitments, which could include topics on corporate sustainability, human rights and relations with interest groups, as well as work results, knowledge and the individual conduct of the employees. This process is conducted every year between all employees and their respective supervisors.

The performance evaluation is done for those who have worked for at least sixth months out of the year. Managers of the labor unions and the Chief Executive Officer are exempt from this evaluation, because the Board of Directors evaluates them using another model. In 2015, 100% of the employees meeting these criteria were evaluated.

**Individual performance bonus:** In 2015, we paid 662 employees variable compensation based on the results of their 2014 performance evaluations, and we paid a bonus to 602 employees who earned outstanding or excellent scores.





# Performance Level 2014

The performance evaluation for 2015 is currently underway and will conclude on March 31, 2016. Data will be available by April 2016.

Performance	% of Employees
Excellent (> 106 and < = 112)	40
Outstanding ( $>100$ and $<=106$ )	54
Good (>90 and $< =100$ )	5
Insufficient (< =90)	1
Total	100

# Performance evaluation of employees by gender (2012-2014)

In 2014, 92.34% of all women (222) and 90.22% of all men (440) were evaluated based on their performance.

Gender	2012		2013		2014	
Genuer	#	%	#	%	#	% <sup>55</sup>
Women	201	94.68	215	97.28	205	92.34
Men	369	95.42	387	93.47	397	90.22
Total Number of Employees	57	70	60	)2	60	02

# Total employees with performance evaluations by year (2012-2014)

	2012	2013	2014
Percentage of employees with performance evaluations	95.16	94.80	90.94

<sup>55.</sup> Corresponds to the number of employees by gender that had performance evaluations in the corresponding year. We did not calculate this percentage for 2012 and 2013 in previous reports, but now we do.

# **INTERRELATIONS**



This promotes recognition of individuals as different, complete, dynamic and unique human beings with a permanent capacity for development and self-betterment, through the strengthening of conversational skills. In 2015, we provided assistance to 24 work teams (341 employees) in the different phases, with 88% of the scheduled group workshops.



# Number of teams and employees with interrelations assistance 2015

Stage	Team	Number of employees
Support	8	116
Advanced	9	114
Maintaining Conversations	7	111

It should be noted that the Company's Upper Management concluded a conversational skills strengthening program in 2015 in keeping with this initiative. On the other hand, we began assisting three managers in the process of developing leadership skills.

# ORGANIZATIONAL CLIMATE



Our management of the organizational climate includes four assessments: work climate, psycho-social risk factors, psychological harassment and ethical behaviors. The correlation of these variables makes it possible to join efforts in building and executing action plans. Similarly, the Study of Ethical Behavior includes a general exploration of how employees perceive the measures taken by the Company to prevent corruption. In 2016, we expect to measure this again, to determine whether the indicators are maintained.

The organizational climate is a continuous process, developed through the following phases

O Measurement: The measurement is made every two years and it allows actions to be taken so that the results of the intervention can be shown in the following measurement.

- O Delivery of results: The results are presented in reports broken down by processes, teams, work groups, type of position, seniority in the Company, age and location. All this information is used to identify aspects that require intervention to improve the organizational climate.
- Building action plans: Assistance for all teams and work groups for them to build their own plans. In 2015, we supported 64 teams/groups in building their plans

We obtained a result of 88.8% in 2014. The following table shows the trend of this indicator in recent years:

# Organizational Climate Indicator (2013-2015)



56. For the years we didn't perform an evaluation, we took the results from the prior year as a score

# LABOR RELATIONS

Our labor relations are developed through dialog and agreement processes, mainly with the trade union groups that operate inside the company. This activity is regulated by the collective agreement bylaws and the trade union permits negotiated. In 2015, there were no significant operational changes in restructuring, externalization of operations, closures, or extensions or acquisitions. In the collective agreements, there are currently no periods of prior notice specified.

The SINTRAISAGEN and ATRAE labor unions represent the employees in defense of their rights and negotiation of labor conditions. Consequently, the social contributions offered to employees are included in the collective agreements and apply to all the employees of the different offices and buildings who work full-time.

In order to guarantee the free development of trade union activity, and according to that agreed upon in the collective agreements, we granted 1,226 days represented in permits for the management bodies and the participation of those affiliated in the meetings, equivalent to five people for the year.

Food allowance, pension and solidarity funds, health, education, life insurance and special provisions (marriage, childbirth and death) and housing provisions stand out, among others. Furthermore, in the topics of health and safety, we include contributions made to medical insurance companies (EPS) and the healthcare plan: a collective assistance policy and allowance for expenses, disabilities, 100% of the salary starting on day one, solidarity fund, occupational exams and safety clothing and footwear. These benefits are given to all ISAGEN employees.

#### Participation of ISAGEN employees in labor unions 2015

	Labor union participation			
	Number of employees	Participation at the company level		
ATRAE	386	56.27%		
SINTRAISAGEN	204	29.74%		
Non-Union	96	13.99%		
Total	686	100%		

In 2015, 45 grievances were received regarding labor practices, of which only three were found still pending and the others were resolved.

# Energy of being **Employees**



Oscar Vallejo
Chairman
SINTRAISAGEN

"With ISAGEN, we have had a relationship based on dialog and cordiality, that has allowed for the construction of proposals that we have developed together. We highlight our commitment to the compromise that ISAGEN declares with the employees and through which favors comprehensive development.

With respect to the process of negotiating agreements, we emphasize the openness that exists among the parties to come to agreements on topics such as scheduling and provisions. Despite the foregoing, we have waited a year to sign the Collective Agreement, since the company wants to review some of the regulations. This has brought us to the point of having to extend it, but as a labor union we are ready to move on through that process, provided that the rights of employees are not restricted or dismantled, and a new agreemen was achieved".



Rodrigo Paniagua

Chairman

ATRAE

"The relationship with ISAGEN is a two-way relationship. We create value for the Company, we make it competitive, and at the same time, the employees work in favorable conditions that allow us to fully complete our work.

We emphasize the negotiation model's clarity, precision and transparency in seeking to reach agreements, as well as the sincere presentation of the two parties' interests in seeking mutual benefit. There still needs to be a unique understanding between the company and the Association in terms of certain topics of high importance. For example, in regards to the ceiling agreed upon for housing loans and any reference to confident management personnel".

# HUMAN AND PROFESSIONAL DEVELOPMENT



We provide opportunities to utilize and deploy employee skills, experience and interests, through joint identification and development of the following initiatives:

- **o English for all:** 104 workers, distributed in 13 study groups, are being prepared. Furthermore, we complement the program with a two-hour weekly roundtable and a monthly business conference.
- O Internal contest for postgraduate study abroad: 16 employees participated in the first contest and two winners were selected, who are studying for their Master's in "Water in the Natural Environment Use and Management" in Spain and an International MBA and Master's in

Technology for Smart Cities and Smart Grids (MTSS). On the other hand, in 2015 we held a new request for proposals, in which 13 employees participated. However, based on the review of the evaluation committee for the contest, it was declared deserted because the proposals submitted did not meet the criteria..

- **o Internal Internships:** We have five internships in the process of Energy Production, and many employees are currently analyzing this strategy as a possibility for professional development in the coming years.
- **o Flexible work:** 382 employees had the possibility of changing their work schedules and working from home.
- O Life project: This has the purpose of holding workshops with the employees to build their life project and to validate their alignment with the challenges and principles of the company. Three workshops were held in which 16 new employees participated, and 64 took the virtual course Personal Finance.

#### O Corporate volunteer programs:

These facilitate, support and motivate employees to offer their time, knowledge and skills to community service. We invited both employees and their families to participate in the program activities, as we consider family integration and the civic training of the employee as part of who they are.

The focus of the program is based on three lines of action:

- **Social:** encourages understanding contexts to promote human dignity, create social ties and strengthen mutual commitment.
- **Human:** focused on the being, ensuring its wellness and developing activities with a greater level of commitment, assistance and training.

 Friendly environments: consists of the recovery and improvement of natural and/or artificial physical spaces that are key to improving conditions of the surroundings and quality of life.

An agreement was signed between ISAGEN and Granos de Arena Association to manage corporate volunteer programs. To ensure participation of the employees, a voluntary poll was taken that helped us learn their interests, an exercise in which 12% of them participated.

With the information collected in the focal groups, various ideas for possible activities to do as part of the program were consolidated. Of the 46 proposals received, and in accordance with the viability of the activities, an idea crossing over the three lines of the Program scheduled for 2015 was selected.

The first volunteer day "I am a volunteer with heart and I plant trees so we can breathe better" was held in 2015, and consisted of planting 246 native trees in a Colombian forest reserve. 30 children and two assistants from the Evolución del Pensamiento Foundation and 81 people, including workers and their families, all participated. This effort saw took 367 hours, from 49 ISAGEN volunteers and their families. On the other hand, in 2015, we evaluated the implications of generational change in the Company through three roundtables, in which 24 employees from different areas participated.



# Number and percentage of maternity and paternity leave 2015

	Maternity		Paternity	
	N°	%	N°	%
Informal maternity/paternity leave	5	0.73	10	1.46
Legal maternity/paternity leave	11	1.60	10	1.46
Total	10	6	2	0

In 2015, 36 people requested leaves of absence, of which 21 corresponded to legal leaves of absence (maternity/paternity) and 15 to extralegal childbirth leaves of absence. A total of 23 were able to access such types of leave at December 31, 2015, 18 of which have returned to the company and five are still on leave.

#### Return to work index: 100%

Number of employees returning after maternity and paternity leave \* 100

Number of employees that should return

#### Retention rate: 100%

Formula:

Number of employees that remain at their job 1 year after returning from maternity or paternity leave \* 100

Number of employees returning after leave during the reporting period

# Housing loan

# Number of Families who Received the Housing Loan (2013-2015)



# Employees and pensioners benefiting from the education provision (2013-2015)

Educational Laura	2013		2014		2015	
Educational Level	N° of people	%	N° of people	%	N° of people	%
Secondary	86	21	135	18	128	17
Pre-school	99	25	116	16	114	15
Primary	103	26	106	15	124	16
Undergraduate	114	28	447	61	469	62
Total	402	100	731	100	758	100

#### Workforce inclusion

We understand workforce inclusion as an essential right to people and a must for society. For this reason, we define a strategy that allows us to study and learn the different factors that facilitate or inhibit inclusive conditions or behavior. We carried out the following activities in 2014 and 2015:

- We developed a reference with businesses and various institutions and they have implemented programs of workforce inclusion to learn about approaches and inclusive practices.
- We conducted a diagnosis to identify facilitators and barriers for adequate professional development of people with physical disabilities. The standard used for this study was the Global Diversity and

- Inclusion Reference Points: Standards for Organizations Around the World.
- O We implemented a pilot test with disabled university students that allowed us to learn from them during their business practice.
- O We saw entities whose social activity is based on the comprehensive development and support of people with physical disabilities.
- O We talked with specialized personnel from the Colombian Agency for Reintegration to learn about the program that accompanies the peace process.
- O We participated in an international symposium on diversity and sustainable workforce inclusion and on the Workforce Inclusion model within a course on human development held in the company with the assistance from the university.
- o In 2016, we will present a value proposition, taking into account the management done, the results obtained and the lessons capitalized.

# MANAGEMENT OF POTENTIAL

We seek to ensure the continuity of our operation by identifying and training backup employees for critical positions, and by developing employees with high technical or managerial potentials. The following activities were carried out in 2015:

- o For potential management, employees that have potential to be managers, the training process under the Strategy and Competitiveness Model was completed under the Universidad de los Andes with an average score of 4,59.
- O For key talents, that is, employees identified by their abilities and technical skills, we continued the training process with the assistance of the Universidad de la Sabana in the following thematic lines:

Thematic line	What does it consist of?	Participation and scoring
Leadership from the role	Elevate the level of awareness of key talents as far as their role, capacity for permanent self-observation and the challenge of leading and transforming the company.	34 employees participated with an average score of 4.78.
Competitiveness and strategy	Offer key concepts of competitiveness and business models, strategic challenges and the certification of business skills, in addition to a contextualization of knowledge management and business learning.	36 employees participated with an average score of 4.79.
Knowledge management	Theoretical concepts on knowledge management and the development of skills that allow for capitalization, transfer and networking.	36 employees participated with an average score of 4.7.
Creativity and innovation	Provide conceptual bases for creativity and innovation, such as incorporating techniques and methodologies that allow for the development of these skills in the organization.	53 employees participated with an average score of 4.82.

# Critical positions

By considering daily operations and the skills required for it, we identified critical positions that could be necessary at any given moment. In 2014, we identified 40 positions, and 2015 we implemented a pilot test with two of them to identify the knowledge they had and how this could be transferred to other employees and the way to do it. This is intended to establish a methodology that could be generalized by the majority of the critical positions identified.

# KNOWLEDGE MANAGEMENT



This is a systematic process that allows us to improve transfer flows and use of knowledge in the company, making up an essential basis for achieving sustainable competitive advantages and integral human development. Through these instruments, each employee can close knowledge gaps that they require for the job and that are explicitly stated within the commitments of personnel development.

The different initiatives foster the creation, organization, distribution and application of knowledge in the organization. We present the main results from the Universidad Corporativa in 2015 below, which facilitates the development of our employees and their stakeholders, in symphony with business objectives and the higher purpose, and comprises the following schools.

Corporate School: training and development on the topics of management, business, professional development and skills. We held 50 courses in 33 business themes with a total of 332 hours of

training provided to 376 attendees. Average employee satisfaction rating was 4.8 out of 5. 10 courses were available on the virtual platform, which had 1,410 entries throughout the year.

**Executive school:** trains managers maintaining the leadership profile identified by the company. In 2015, we evaluated the school, obtaining its reconsideration as a result, taking into account the needs of the generations that coexist at the managerial levels, the diagnosis of skills, the organizational climate report, the levels of decisions and the results by the work of the Management Committee in interrelations.

**Operations and Maintenance School:** allows for leveraging and transferring knowledge in a structured and systematic manner among the technical personnel at the power plants. In 2015, we developed 11 classroom modules with the participation of 131 people and a virtual model, which had 381 people access the five lessons under the Comprehensive Energy Management module, for a total of 262 transfer hours.

Citizen Training School: informs employees and their families about realities and social, economic and geopolitical trends. In 2015, the central theme was building peace and reconciliation in Colombia, for which there were five lectures by experts in these fields, who gave us information and enriched us through their visions and individual experiences.

**Technical and Innovation Workshops:** Promotes the transfer of knowledge within the Company through the presentation of documents, lessons and innovative ideas, which are made by employees throughout the year and announced at a corporate event. In 2015, we developed the fourth version in which employees from the Energy Production process, Generation Project Management and the Corporate Auditing Department participated. As a result, we yielded 16 technical documents, five lessons learned, and 10 innovative ideas.

# External training sessions

We provide the conditions necessary to apply knowledge on job requirements. These conditions result in high performance and strengthen corporate skills.



#### Hours and attendance (2013-2015)

	2013	2014	2015
Total training hours per year	10,488	9,530	17,135
Hours per employee	30.5	26	24.9
% employees who attended	54.17	54.68	96

The total number of employees in 2015 was 686, of which 663 received external training. This table does not include training hours in Corporate Schools.



#### Training hours per work group 2015

Work group	Training hours <sup>57</sup>	Average % of training hours
Managers	500.5	3
Directors	3,126.5	18
Coordinators	1,594	9
Professionals	10,678	63
Assistants and technicians	839	5
Office Clerks	397	2
Total	17,635	100



#### Average hours, broken down by gender 2015

Work group	Training hours	Average % of training hours
Men	10,189	59.46
Women	6,946	40.54
Total	17,135	100.00

# Occupational Safety and Health Training

For the sake of maintaining a safe, healthy and comfortable work environment, we have a training plan that is scheduled in agreement with the risks associated with the activities that are performed by employers and contractors. The training plan is reviewed and adjusted annually based on needs, exposure to risks and current legislation with an impact on health and safety of employees and contractor businesses. In 2015, we also continued to recruit new employees, based on the guidelines of our

management system, started training in the road safety plan and the guidelines of the Occupational Safety and Health System, according to Decree 1072 / 2015. Personnel in high-risk jobs continued to be trained on emergency plans and programs and procedures associated with safety conditions and particularly on the topic of strengthening self-care behaviors. On these preventative themes, we held campaigns, events and training sessions on healthy life habits and cancer.



# Goal in hours established for training by employee and milestones (2013-2015)

	2013	2014	2015
Average training hours per employee	8.01	7	7.59
Goal	5	5	5

The trend over the last three years shows that the man-hours of training have increased, understanding the great challenges that we face in safety and health. 2015 also saw an increase compared to previous years due to the inclusion of the road safety plan and actions corresponding to Decree 1072.



# WELLNESS AND OCCUPATIONAL HEALTH AND SAFETY

We have an Occupational Safety and Health System certified under the OHSAS 18001 international standard, to encourage employees' well-being, health and integrity. The following are some significant achievements in 2015:

#### o Education and training of a group of 61 self-care sponsors at the Termocentro, San Carlos, Jaguas and Miel I power plants. **Project to encourage** o Physical training plans for employees. self-care habits Healthy food at the power plants o Wellness plan with sports, recreational and cultural activities at each headquarters. o Programs in cardiovascular risks, absenteeism, mental health, public risk, vision and auditory care, location risk and ergonomic risks. o Monitoring exposure to professional diseases risk factors. **Promotion and prevention** o Promotion and prevention of cardiovascular risk and breast cancer. Monitoring chronic illnesses. o 577 vaccines for employees and interns. o We have a comprehensive health plan that contributes to good physical and mental conditions and the development of healthy lifestyles. o Health personnel at corporate headquarters and the power plants. o 658 periodical exams, 169 occupational entry exams, and 7 retirement exams, with exams specialized in **Health management** osteomuscular issues and work at heights, complemented by paraclinical exams. o Medical attention to employees and contractors, 3,867 consultations were made, of which 59% were for employees, 36% for contractors and 2.64% for the Army. In the case of a vital emergency, the communities were attended to.

# We participated in implementing and verifying the RETIE standard and we made progress in training on the risk of electric shock for technical personnel as well as contractors. We held a pilot certification plan for facilities to be used as anchor points for work at heights in the San Carlos, Jaguas and Calderas Hydroelectric Power Plants. We define the skills for employees who have positions as coordinators of work at heights We define the Guide for handling alcohol consumption and psychoactive substance abuse, establishing preventative, monitoring and assessment actions, for safe working conditions. With SURA Workers Compensation Insurance (ARL), we performed a diagnostic of Decree 1072 to road safety, achieving 87% compliance with legislation and we were identified as one of the companies in Colombia with the highest level of compliance. We held 66 events with a total of 31,267 attendees, between employees and contractors: 22,439 participated in sports programs and 1,258 in recreation; and 7,570 attended the events and celebrations.

The coverage for these programs is 100% of employees. In addition, the health service covers visitors, in case of emergencies or health events that require immediate attention.

# Meetings with the Occupational Health and Safety Peer Committee (COPASST)

ISAGEN has two formal Occupational Safety and Health committees: the Work Environment Committee and the Copasst. 100% of the Company's employees are represented on these committees. 1.08% of the employees are part of the Work Environment Committee and 1.75% of them are part of the Copasst. These peer committees operate at all levels of the company. The results were published in different mechanisms of interaction.

Employees Represented in Formal Health and Safety Committees:

Work Environment Committee: 1.08 %

o Copasst: 1.75%

# Occupational accidents

Work-related accidents and incidents are reported and measured at each worksite, and consolidated at the corporate level with monitoring by the Board of Directors, Management Team, and Process Teams.

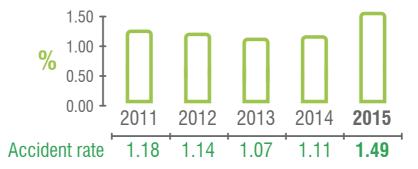
In 2015, 11 occupational accidents occurred in an average population of 740 employees. Seven of these accidents were directly related to job execution, two in representing the company at sporting events, and two when commuting on the job. The accident rate was 1.49%, calculated as the number of accidents divided average annual number of employees.

Accident investigations revealed that the condition of the surface on which there were commutes, overconfidence and equipment failures could have been possible causes of the injuries. To this effect, the corresponding action plans were defined, particularly to strengthen controls related to falls at the same level.

No job-related diseases, or serious or fatal accidents were identified pursuant to Resolution 1401 of 2007. Furthermore, we do not have employees with a high risk of diseases.



#### **ISAGEN Accident Rate (2011-2015)**



In 2015, there was a slight increase in the number of accidents, and thus the accident rate, due to the start-up of the Sogamoso Hydroelectric Power Plant and the preparation and training process that these employees require.

Total employee accident rate<sup>58</sup>: 1.49%, of which two were women and nine men.



#### **Accident Rate by Region 2015**

Medellín Headquarters	1.45
San Carlos Power Plant (Eastern Antioquia)	1.41
Jaguas Power Plant (Eastern Antioquia)	2.18
Miel I Power Plant (Eastern Caldas)	0.0
Termocentro Power Plant (Magdalena medio)	0.0
Amoyá Power Plant (Southern Tolima)	0.0
Sogamoso Power Plant (Santander)	4.32

This type of injury corresponds to blows, same-level falls, entrapment, sports accidents, sprains or overexertion.

 Not including minor workplace accidents or incidents that do not cause occupational disability.

#### **Employee absentee rate (2013-2015)**



The absentee rate is calculated for the total events caused by occupational accidents or by disease or accident of common origin.

#### **Absentee Rate 2015**

Region/plant	Goal	By headquarters
Medellín corporate headquarters and regional offices: Barranquilla, Bogotá and Cali	>= 3%	2%
San Carlos Power Plant (Eastern Antioquia)	>= 3%	5%
Jaguas Power Plant (Eastern Antioquia)	>= 4%	2%
Miel I Power Plant (Eastern Caldas)	>= 1.3%	1%
Termocentro Power Plant (Magdalena medio)	>= 3.5%	4%
Amoyá Power Plant (Southern Tolima)	>= 2%	1%
Sogamoso Power Plant (Santander)	>= 1%	1%

## Severity Index

The number of days lost in the last year due to all work accidents for 200,000 man hours of exposure. (Source GTC 3701, Guide for classification, registration and statistics of workplace accidents and professional diseases).

Severity Index (IS) =	No. of days of disability due to occupational injuries in the period * 200.000
	Man hours worked in the period

### Goal

Defined compliance ranges for the indicator as per the results of calculating the severity index of previous years.

	2013	2014	2015
Severity Index	5.23	62.52	22.59
Number of accidents reported in the period	7	8	11
Number of days lost or charged due to occurrence of accidents	23	361	118

In 2015, the severity index associated with accidents had an important drop, which reflects the management made through the different programs implemented on the topics of occupational safety and health, as well as the program that is being developed to encourage self-care behavior.



Learn about the tools for managing occupational safety and health, occupational risk management, COPASST and wellness plans here.

# LABOR INDICATORS





#### Total de trabajadores (2013-2015)

	2013	2014	2015
N° of employees	635	662	686
%	5.67%	4.08%	3.50%



#### Total and gender of workers (2013-2015)

	No of poorlo	Ma	ale	Fen	nale
	N° of people	N°	%	N°	%
Total	686	460	67	226	33

### Personnel

Over the last three years, our plant personnel has grown by an average of 3.50%; mainly because of the need in preparatory processes to complement administrative activities.

Below, we present the general data of all employees, with their information regarding gender, contract duration, age, location and time working at the company:



#### Number of workers by labor contract and gender 2015

Type of contract	No of poorlo	M	ale	Female	
Type of contract	M of beoble	N°	%	N°	%
Undefined	685	460	67	225	33
Fixed	1	0	0,0	1	100

#### Size of workforce by headquarters and region 2015

	M N°	ale %	Fer N°	nale %	Building total	%
San Carlos Power Plant (Eastern Antioquia)	63	9	2	0	65	9
Sogamoso Power Plant (Santander)	36	5	8	1	44	6
Miel I Power Plant (Eastern Caldas)	31	5	6	1	37	5
Termocentro Power Plant (Magdalena medio)	30	4	6	1	36	5
Amoyá Power Plant (Southern Tolima)	27	4	5	1	32	5
Jaguas Power Plant (Eastern Antioquia)	34	5	3	0	37	5
Medellín Headquarters	228	33	193	28	421	61
Cali Headquarters	3	0	1	0	4	1
Barranquilla Headquarters	3	0	1	0	4	1
Bogotá Headquarters	5	1	1	0	6	1
Headquarters total	460	67	226	33	686	100

#### **Employees by Age Group (2013-2015)**

Age	2013		ge 2013 2014		2015		
Group	N° of people	%	N° of people	%	N° of people	%	
20-30	94	15	92	14	77	11	
31-40	236	37	248	37	269	39	
41-50	175	28	184	28	193	28	
51-61	130	20	138	21	145	21	
Total	635	100	662	100	686	100	

## Percentage of Employees by Professional Category 2015

Positions	N°	%
Managers	8	1.2
Directors	38	5.5
Coordinators	57	8.3
Professionals	349	50.9
Assistants	208	30.3
Office Clerks	26	3.8
Total	686	100

#### Seniority years average (2013-2015)



	2014	I .
11.46	11.36	11.61
_		-



# Number of new hires by age and gender 2015

	Total employees	Male	Female
Less than 30	6	3	3
Between 30 and 50	30	22	8
Over 50	1	1	0
Total	37	26	11

Number of new hires by gender, headquarters and region 2015

	N° Men	%	N° Women	%	Region total	%
San Carlos Power Plant (Eastern Antioquia)	1	3.8	0	0	1	3
Sogamoso Power Plant (Santander)	8	30.8	2	18	10	27
Miel I Power Plant (Eastern Caldas)	0	0.0	1	9	1	3
Termocentro Power Plant (Magdalena medio)	0	0.0	2	18	2	5
Amoyá Power Plant (Southern Tolima)	1	3.8	0	0	1	3
Medellín	15	57.7	6	55	21	57
Bogotá	1	3.8	0	0	1	3
Total employees	26		11		37	

Percentage of employees with the right to retire in the next 5 and 10 years (2013-2015)

Drofossional automory	20	13	20 <sup>-</sup>	14	20	015
Professional category	5	10	5	10	5	10
Managers	0.47	0.62	0.76	-	0.44	0.58
Directors	1.10	1.88	1.21	0.92	1.17	2.19
Coordinators	0.15	0.78	0.45	0.76	0.58	1.17
Professionals	4.24	8.81	4.23	6.34	4.08	10.35
Assistants	2.04	5.82	1.96	4.98	1.90	6.85
Office Clerks	0.78	1.73	0.60	0.76	0.44	1.02

Turnover<sup>59</sup>



ISAGEN's turnover rate is very low and mainly occurs due to generational replacement and hiring based on Company growth.

59. Calculated as follows: (Number of retired employees/ total number of employees) \* 100

### COMPENSATION MANAGEMENT

We include compensation management as part of equality and salary competitiveness. We use it to seek recognition of individual and collective employee contributions, according to our business model and environmental labor conditions.

In the last 10 years, with the aim to incorporate best practices into this management, we have hired expert compensation consultants with the support of the Board of Directors, who established the fixed and variable pay according to internal analyses such as assessment of positions and salary structure, as well as external analyses with market standards.

We have a skills management system that offers equality of opportunities to all people, allowing for their participation in the selection and promotion processes regardless of their gender, beliefs and race, among other aspects. It also allows for individual and collective salary mobility and in accordance with the development and the results obtained by the workers. The salary panorama of the company is composed as follows:

- Description and valuation of positions based on the needs of the job and the behavioral and cognitive skills.
- O A salary range defined by each position between +20 and -20, with independent valuation, which allows for the professional development and salary mobility of each employee in accordance with adjustments by skills matching the position.
- O A mobility system in the range for managers that allows for salary development based on outstanding and excellent results in compliance with the work, knowledge and behavioral challenges.

O Skills evaluations for all workers with different positions than management to identify knowledge and behavioral gaps, to also perform review and positioning in the range and salary adjustments in applicable cases

Total compensation is comprised of fixed pay, variable pay and benefits, which are understood as follows:

- O Fixed Compensation: aims to maintain the employees' acquisition power and remunerate individual contributions according to the level of responsibility and impact of each role in the company. This is defined using the HayGroup methodology, with which positions are described and valued, the market reference is updated, the salary study is conducted and the salary structure is defined, with the purpose of ratifying and upgrading said guidelines defined by the Board of Directors.
- O Variable Compensation: aims to align employees' efforts with the Company's strategic objectives, rewarding collective results according to the goals established in the Institutional Development Plan. The Board of Directors determines the definition of variable compensation with the support of consulting firms. Together they define the criteria for covering positions, the eligibility conditions that participants must meet and the matrices for annual and quarterly variable compensation, among others.

For the case of Upper Management positions, which comprise the Chief Executive Officer, the Process Managers, the General Counsel and the Chief Internal Auditor, a general increase is defined by internal equality and external competitiveness each year, which is defined and authorized by the Board of Directors. Similarly, as part of in-position salary development,

special criteria are established that fairly ensure their retention, and business continuity, with the aim to maintain their salary competitiveness regarding market standards and development of individual skills.

On the other hand, as it corresponds to compensation, employees, through representatives of the SINTRAISAGEN and ATRAE labor unions, make use of legal mechanisms to negotiate collective contracts and mechanisms of company participation to manage labor relations within a legal and corporate framework.

#### Some salary indicators in 2015:

- O The ratio of total annual compensation of the organization's highest-paid individual with the average annual compensation for all employees is 8.16\*. In other words, the highest-paid individual earned 8.16 times more than the average of all employees in 2015..
  - \* The total annual income of employees who worked full-time in all of 2015 and the average annual income of personnel who worked in all of 2015 were used to calculate this ratio

- o The ratio of total annual compensation of the company's highest-paid individual to the median annual total compensation for all employees is 9.33\*\*. In other words, the highest-paid individual received 9.33 times more than the median of all the employees in 2015.
  - \*\* The total annual income of employees who worked full-time in all of 2015 and the average annual income of personnel who worked in all of 2015 were used to calculate this ratio.
- The ratio of percentage increase in annual total compensation of the highest-paid individual to the median percentage increase in annual total compensation for all employees, excluding the highest-paid individual in the company, is 8.89%\*\*\*.
  - \*\*\* The total annual income of employees who worked for all of 2014 and 2015 and the median of annual income of personnel in the last two years were used to calculate this datum. Data on internship students are excluded.



## Other Salary Indicators

## Minimum Salary in ISAGEN Compared to the Official Minimum Salary in Force in Pesos per Hour in 2015

	Minimum Salary in Colombia	Minimum Salary in ISAGEN
Monthly	644,350	1,223,000
\$/Hour	2,685	5,096

The minimum salary at ISAGEN is 89.80% higher than the current minimum legal salary in Colombia.

## Minimum Salary in ISAGEN Compared to the Official Minimum Salary in Force in Pesos by Gender in 2015

	Minimum Salary in Colombia	Minimum Salary in ISAGEN	Ratio
Female	644,350	\$1,256,000	1.95
Male	644,350	\$1,223,000	1.90

In 2015, at ISAGEN, the minimum female salary was greater than the male salary, however the difference is insignificant, taking into account that these correspond to positions performing secretarial activities. In Colombia, a single official minimum monthly salary in force is defined by law, which governs the entire country.

15.01% of plant personnel corresponds to management positions, that include managers, directors and coordinators. In ISAGEN, local refers to the areas of influence where its electric power plants and projects under construction are located. The percentage of management positions at ISAGEN by zone are presented below:

#### **Management Staff 2015**

Department	No. of management positions	%
Antioquia	68	66.02
Bolívar	1	0.97
Caldas	5	4.85
Cundinamarca	1	0.97
Bogotá	8	7.77
Meta	1	0.97
Nariño	1	0.97
Quindío	2	1.94
Risaralda	1	0.97
Santander	7	6.80
Tolima	1	0.97
Valle	7	6.80
Total	103	100



#### Age Group and Gender of Management<sup>60</sup> 2015

Age Group			Gen	der		
		Men		Women		
	N°	%	N°	%	N°	%
<30	0	0.0	0	0.0	0	0.0
30-50	76	73.8	59	74.7	17	70.8
>50	27	26.2	20	25.3	7	29.2
Total	103	100.0	79	77	24	23



## Ratio between base salary of men compared to base salary of women 2015

In 2015, there was a renewal in the Steering Committee due to retirement, which has allowed new managements to enter with adjustments based on their development curve, which implicated lower salaries than those of outgoing managers.

Professional	Gen	Gender		
category	Men	Women	Percentage difference	
Managers	\$ 39,663,083	\$ 33,233,000	19.35%	
Directors	\$ 18,876,717	\$ 20,097,875	-6.08%	
Coordinators	\$ 11,605,465	\$ 13,021,714	-10.88%	
Professionals	\$ 5,942,834	\$ 5,407,144	9.91%	
Technical assistants	\$ 3,027,203	\$ 3,062,000	-1.14%	
Administrative assistants	\$ 2,773,909	\$ 2,242,552	23.69%	
Technical Clerks <sup>61</sup>	\$ 2,000,857	-	-	
Administrative Clerks	\$ 2,188,000	\$ 1,667,765	31.19%	



- 60. There are no indicators associated to minorities; we are currently working on a project to include this in the corporate scope.
- 61. For technical clerks, 100% of workers are male.



# 2016 CHALLENGES

- O Definition of the Workforce Inclusion Plan within the strategy defined by ISAGEN.
- O Consolidation of the comprehensive health plan focused on consolidating work and family life in harmony with the Integral Model of Human Management.



# CONTENTS

**Supply Chain** 

Supplier Management

Relations with Suppliers

**Collaborative Networks** 

2016 Challenges



Jaime **Ospina**Coordinator
Supplier Management

"We promote relationships and activities that are built and executed from suppliers to clients, with the objective of bringing them a supply service that benefits them and allows progress through teamwork. Therefore, we seek a systemic understanding of all the factors that come into play in the chain and effectively assume the new strategic roles in the optimization of costs to assure the availability of energy supply and risk management".



# **2015 MILESTONES**

- 311 suppliers (15.38%) filled out the self-evaluation of minimum sustainability practices to identify progress in their companies to implement environmental, social and economic practices.
- The company identified and assessed 94.01% of all suppliers in the economic, social and environmental risks associated with sustainability in order to establish work guidelines for development programs and controls.
- 24 meetings and two conventions were held with four supplier networks that promote integration and skills training.
- 30 engineering companies that provide services to our clients and comprise our Technology Partner Network made progress with our support in defining a Social Responsibility baseline and in strengthening governance schemes.

We are convinced that supply chain management is a key area for the success of our operations. The challenges we face are increasingly bigger, in terms of compliance, costs, support to suppliers from different geographical areas, and flows of information that multiply.

We recognize the complexity of this management in our Company and are aware of the need to act in an integrated manner, establishing long-term relationships with our suppliers, seeking mutual development, developing solutions that enable better results, minimizing the materialization of risks, and contributing to sustainability and that of stakeholders.

This chapter presents the main results of the management of the supply chain and supplier relations:

## SUPPLY CHAIN





Though the supply chain impacts all aspects of management, it is most directly associated with two of our corporate risks: unavailability of energy or generation sources and the inadequate management of generation assets.

In 2015 there were no significant negative impacts on our supply chain or from our suppliers. However, we strengthened our management of inherent supply-chain impacts and risks through the following mechanisms:

- **O Strategic Planning:** we established the supply chain and its corresponding actions as a critical issue for minimizing risks and exploiting opportunities.
- **o Supply Model:** centers on the adequate management and reliability of assets; to this end, we evaluate the decisions that transcend procurement or purchases through a traditional outlook.

o Framework for Action: We have policies in place that enable us to structure relations with our suppliers, as well as the agreements and rules for negotiating and procuring goods and services.

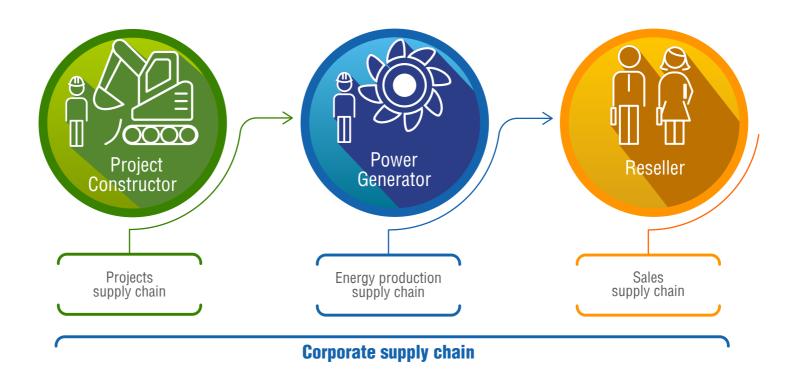
We have multiple supply chains with their own particular characteristic and which respond to the specific needs and primary activities of our value chain. In 2015, there were no significant changes to the chain.

The raw materials for energy generation: the water for our hydroelectric power plants, as well as gas and fuel for the thermal plant, are issues that are covered in the chapter on Comprehensive Water Management and Energy Sales Management, respectively.

Click here to learn more about:

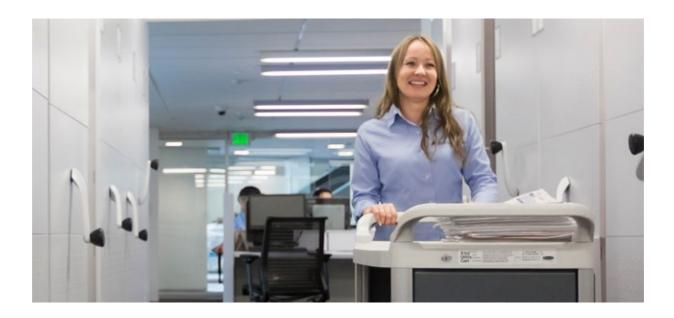
- Supplier Relations Policy
- Goods and Service
  Management Policy
- ISAGEN Procurement Agreement

#### **ISAGEN's supply chains**



The characteristics of the supply chains are set out below:

- **o Projects:** assures the supply of goods and services with the objective of complying with the technical quality established, the period and the budget set for each project. Given its transient nature, there is no supplier network established for this chain.
- **o Energy Production:** guarantees the supply of goods and services for energy production through cost optimization, synchronization, and value creation among participants in the chain, which is served by the Engineering and Maintenance Network.
  - Learn more about supply in the energy production process here.
- o Sales: coordinates the different engineering firms that provide specialized technical services for our end industrial clients, which range from periodic maintenance to development of custom projects. This chain is served by the Technology Partner Network.
- **o Corporate:** assures the adequate and timely functioning of the rest of our operations by optimizing service procurement costs. Some form part of the communication partner, administrative service and management information networks.





## SUPPLIER MANAGEMENT

For us, a supplier is a natural or legal person that provides goods or services, and with which we build harmonious and productive relationships based on trust and mutual collaboration. The following table shows the number and distribution of suppliers as at 2015, based on our supply chains:

#### **Number and Distribution of Suppliers, 2015**

Supply Chain	N° of suppliers	Distribution (%)	Value of purchases, 2015 (millions of \$)	Distribution (%)
Sales	481	17	260,626.64	41.88
Corporate	1,405	51	220,302.48	35.40
Production	665	24	95,046.05	15.27
Power Plant Projects	225	8	46,354.27	7.45
Overall Total <sup>62</sup>	2,776	100	622,329.44	100.00

In 2015, we had 2,021 active suppliers with which we sustained commercial relations. A breakdown by supplier type is set out below:

#### **2015 Active Suppliers**

Supplier Type	N° of suppliers	Value of purchases, 2015 (millions of \$)63	Purchase Value Distribution (%)
International	91	36,789.12	2.20
National	1,648	547,732.16	95.54
Local	282	37,808.16	2.26
Total	2,021	622,329.44	100

- 62. Some supply chains share suppliers, so the total amount is not the same as the total number of the Company's active suppliers. This is the first year that we determined our supply chains, and therefore we have no information to report for 2013 and 2014.
- 63. No data comparisons with the previous two years are presented due to a calculation error.

We consider local suppliers as those that meet the criteria of proximity, accessibility and level of service regarding the area of coverage of an electric power plants, and which are also registered in the territorial Chamber of Commerce corresponding to each power plant.

In 2015 we signed contracts with 282 local suppliers, broken down as follows:

#### **Contracts with Local Suppliers (2013-2015)**

Department	N° of suppliers		Value of Purchases, 2014 (Millions of \$)	Value of Purchases, 2015 (Millions of \$)
Antioquia	120	14,801.00	3,532.00	13,620.40
Boyacá	1	-	401.00	82.17
Caldas	57	7,911.00	5,649.00	7,974.25
Santander	55	19,247.00	3,793.00	14,056.36
Tolima	49	675.00	2,150.00	2,074.98
Total	282	42,634.00	15,525.00	37,808.16

With a view of improving our supplier management and obtaining sufficient information to direct our efforts, we conducted activities to identify immediate controls or changes to our supply model:

- o Supplier Pre-Qualification: we established the supplier pre-qualification procedure to evaluate aspects of sustainability, economic and logistics capacity, and compliance with minimum sustainability requirements. The procedure will pre-qualify suppliers from 2016, and is to be renewed annually.
  - In our Company, each work team has the opportunity to select its suppliers in line with its supply needs, taking into account compliance with sustainability standards.
- o Identification of Critical Suppliers: given our diverse supply needs, we are required to identify our suppliers to establish the risks associated with sustainability. Thus, we implemented controls and established the work flows to be followed as per the Supplier Development Program.

We renewed the critical supplier identification model and deepened associated training. Based on these guidelines, we believe that a critical supplier is that which can negatively affect the sustainability and continuity of the Company. They are evaluated based on economic, environmental and social criteria.

Learn more about the critical supplier identification model here.

We expanded the number of suppliers, and in 2015 we analyzed 94.01% of a total of 2,021 suppliers to determine which of them are critical and to establish work flows in development and control programs. Below we detail the results with the suppliers we have qualified as critical:

#### **Suppliers Identified and Analyzed (2014-2015)**

	201	2014		2015	
Type of Risk	N° of Critical suppliers	Distribution (%)	N° of Critical suppliers	Distribution (%)	
Economic	24	2,23	25	1.32	
Social	64	5,95	28	1.47	
Environmental	123	11,43	63	3.32	
Total	211	19,61	116	6.11	

The distribution percentages are calculated based on the number of suppliers evaluated each year.

### We Evaluate our Suppliers

Supplier Performance: in 2015, we renewed our performance measurement, and on the basis of this exercise, we obtained fundamental information to design and evaluate the assistance road maps established in the Supplier Support Model. We began the evaluation process of 540 suppliers during

the contract execution stage - that is, 26.71% of those that are active. We aim to cover the entire supplier population.



Learn about supplier performance measurement model here.

Minimum Sustainability Requirements: with our suppliers, we agree upon the legal requirements and minimum commitments they must meet in terms of sustainability, which include ethical, labor, human rights and environmental issues. In 2015, through the selfdiagnostic mechanism. 311 of our current suppliers self-evaluated their minimum sustainability requirements - that is, 15.38% of all active suppliers. Of these, for 238 it was their first time conducting the self-evaluation - that is, 11.76% of all active suppliers.

In 2014, the self-evaluation was carried out by 164 suppliers, which represents an increase of 89.63%. The data are provided below<sup>64</sup>:

<sup>64.</sup> For all the minimum sustainability requirement results, the 2014 supplier base was 223, and that for 2015 was 311. The percentages shown are compared with the total number of suppliers evaluated each year.

#### The Environment



Aspects Evaluated	2014 (%)	2015 (%)
Aware of the environmental impacts caused by company activity.	79.88	83.60
Have an environmental impacts mitigation plan related to the company's activity.	64.63	67.50
Have some type of environmental management system.	44.51	57.93
Have an on-going training plan for employees.	74.85	81.61

In our quarterly review of contracts, we conducted 323 audits of 134 suppliers. We compared the fulfillment of the providers' commitment in regards to the environment in the Minimum Sustainability Requirements, before being contracted and during the contract. We found no negative impacts related to climate change.

For us, it is important that our suppliers take cognizance of water management. In the evaluation, 40 out of 311 suppliers (12.86%) state that they are entirely dependent on water for the production or provision of their goods and services, of which 33 (84.21%) have implemented measures to identify the risks associated with adequate water use.



#### **Human Rights**

Aspects Evaluated	2014 (%)	2015 (%)
They are aware of and respect the rights and liberties contained in the Universal Declaration of Human Rights.	88.41	93.89
They have mechanisms that help them to disclose the existence of bribes and extortions.	71.17	72.99
They understand and act in accordance with the provisions of ISAGEN's Human Rights Policy.	84.66	87.70

In line with the stipulations of our Human Rights policy, we have extended our commitment to respect the rights and freedoms among all of our contractors. Therefore, before the active engagement of suppliers, we request that they conduct a human rights self-diagnostic, and we include in all agreements and contracts a clause that binds suppliers to inform us of all complaints received regarding infringements of any kind, bribery or extortion, and ensure that they include a similar clause in their contracts with subcontractors that are to perform activities for ISAGEN.

The self-diagnostic included questions related to freedom of association and collective bargaining, as well as amending an agreement to reflect the management of this issue. In 2015 no difficulties arose in the measurement, and we expect to have a consolidated indicator in place for 2016.

86.17% of suppliers who conducted the self-evaluation of minimum sustainability requirements state that they have mechanisms in place to prevent child labor, which attests to an explicit commitment on their part to prevent the risk of child exploitation.

Through our evaluation, we believe that the activities that pose the greatest risk related to human rights are those associated with surveillance and security; therefore, we pay particular attention to this type of suppliers.

#### **Labor Rights**



Aspects Evaluated	2014 (%)	2015 (%)
They comply with all contractual obligations regarding salaries and social protection.	97.55	99.03
They have mechanisms to follow an appropriate work schedule as established in legislation, including weekly rest and paid annual vacations.	93.79	97.10
Social Security payments are up to date.	96.95	98.71
They provide safe and healthy working conditions for all employees.	96.30	99.03
They communicate occupational and safety health objectives and policies to their employees.	93.29	96.03

93.20% of suppliers that conducted the self-evaluation on human rights matters related to labor discrimination report that they have mechanisms in place to guarantee equal opportunities across their payroll.

In 2015 we evaluated the occurrence of forced labor, but we do not yet have conclusive data that would allow for an indicator. However, we identified that 85% of companies evaluated have mechanisms in place for stakeholders to report situations involving suspected rights violations.

In addition to the self-evaluation, 323 contracts in significant operational areas were monitored.

#### **Ethics**

Aspects Evaluated	2014 (%)	2015 (%)
They act under some sort of Ethics Statement.	85.37	87.14
They notify their employees of mechanisms to prevent and report unethical situations.	87.80	90.29
They have implemented some type of mechanisms where employees can report situations where they feel that their rights have been violated.	87.20	81.82
They have mechanisms to prevent or resolve conflicts of interest throughout the company.	89.02	90.24



Overall, it can be seen that the sustainability practices evaluated with suppliers are becoming increasingly relevant, as they represent an opportunity for suppliers to incorporate business actions to improve their compliance.

## Validation of Minimum Sustainability Requirements

In order to validate the veracity of the Minimum Sustainability Requirements self-declaration, conducted by each supplier when they register, we carried out monitoring and auditing activities through three entities:



Validation Type	2015 Validated Suppliers
All participants on the Supplier Development Program from 2015.	35
Internal Audit of randomly-selected suppliers from the group of providers that provide service within the Company's facilities.	2
Conducted by a third-party on randomly-selected suppliers and that during the year they have renovated the self-assessment in Minimum Sustainability Requirements.	7
Total	44

In addition, suppliers with contracts exceeding six months are subjected to an audit that assesses compliance with regulations and procedures related to occupational safety and health, the environment and human rights. In 2015, 134 suppliers were audited.



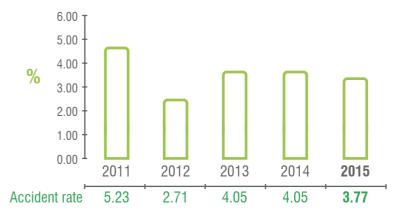
## Occupational Safety and Health Practices



#### **Employees of Contractors**

In 2015, there were 55 contractor work accidents in an average of 1,460 employees. The accident rate was 3.77%, and there were no fatal accidents, not including minor workplace accidents or incidents that do not cause occupational disability. Women: 5; and men: 50 in total.

#### **Contractor Accident Rate (2011-2015)**



In 2015, the contractor accident rate fell slightly from previous years reflecting the occupational safety and health management carried out alongside employees and managers of contractors to allow them to manage their own risks. Work-related accidents were investigated accordingly, and action plans and ongoing monitoring were implemented. In addition, for contractors that show an increase in accidents, intervention plans were determined in accordance with specified criteria.

Moreover, we have goals for man hours spent on training related to these issues, and monitor compliance on a monthly basis. 100% of contractors working at the power plants received Occupational Safety and Health inductions. In 2015, we surpassed the goal established - an average of 13.7 man hours spent on training for each employee contractor - with an average throughout the year of 17.7 training hours per contractor employee. These campaigns include training and orientation processes, and prevention and control measures.



#### **Accident Rate by Region 2015**

Medellín Location	3.09
San Carlos Power Plant (Eastern Antioquia)	5.99
Jaguas Power Plant (Eastern Antioquia)	2.95
Miel I Power Plant (Eastern Caldas)	2.76
Termocentro Power Plant (Magdalena Medio)	2.34
Amoyá Power Plant (Southern Tolima)	7
Sogamoso Power Plant (Santander)	3.28

These injuries include blows, same-level falls, lacerations, insect bites and stings, entrapment and/or sports accidents.

Contractor absenteeism rate <sup>65</sup>	3.77%
Number of days lost or charged due to accidents (this is calculated using the accumulated number of contractors per year)	418 days

To date there have been no occupational diseases among contractor employees.

<sup>65.</sup> The data were taken from the accident characterization data for days lost and average employees with which accidents are calculated - 360 days \* 8.25 hours/day.

## RELATIONS WITH SUPPLIERS



Business Management Course.

We recognize suppliers as our strategic allies in boosting productivity and competitiveness, and in generating value for clients and society. To be consistent with this idea, we establish long-term relationships with them based on trust and transparency, as well as encouraging the creation of collaboration networks that make the most of their members' skills, foster development and contribute to sustainability.

We have a service model in place whose aim is to encourage the work and participation of Company teams in managing supplier relations, and to ensure a clear road map that provides everyone with knowledge of the work we do with these stakeholders. In 2015, we executed the pilot test that

entailed implementation of this model with 124 suppliers, and, based on the results obtained, we made the corresponding adjustments for its approval and validation. The activities carried out are detailed below:

- O We held two Supplier Relations Conferences, which feature products and/or services from current and potential suppliers, thereby allowing vendors to form new relationships or strengthen the existing ones with our Company's teams:
  - At El Espinal (Tolima), we drew on the participation of 86 suppliers and 106 meetings. This roundtable allowed us to identify 27 potential suppliers.
  - In Medellín (Antioquia), as part of the Annual Suppliers Convention, we drew on the participation of 45 companies and 204 meetings.
- We received a total of 188 suppliers to support the objective of improving certain management practices.
- **o** We invited 214 suppliers who voluntarily applied corporate diagnostic and risk identification and validation tools, of which 124 fully completed the diagnostic process.
- $\ensuremath{\text{\textbf{o}}}$  At the supplier school, we teach two programs:
  - Certificate in Business Management, designed in collaboration with the Universidad EAFIT and EAFIT Social, attended by 32 suppliers.
  - Cleaner and Environmentally Responsible Production, with ACOPI, attended by nine suppliers belonging to the collaboration networks.
- O As part of the Supplier Development Program, we held 14 group meetings attended by 41 suppliers from the departments of Santander, Antioquia and Tolima. In 2015 we acknowledged the efforts and dedication that each of our suppliers demonstrated throughout the

program, across three categories in which their good performance was evident: interest in the process, commitment to development, and leveraging know-how. We recognized three suppliers in each category..

Click here to learn more about:

- Supplier Service Model
- Aliados Newsletter, special issue December 2015

#### Other Achievements with Suppliers:

- o We participated in the joint initiative between the United Nations Development Program (UNDP) and the Bogotá Chamber of Commerce to strengthen relations with suppliers and improve aspects of supply.
- O Corporate Innovation Managers: created by Ruta N as part of the Gran Pacto por la Innovación as a benefit for subscribing companies, in which four of our suppliers participated.
- o First Contact: a program that since 2014, we worked on in alliance with the Universidad EAFIT. In 2015 this program drew on the participation of seven suppliers and had the following objectives:
  - To generate opportunities to learn about entrepreneurial activity in the local context.
  - To support the Global Compact and its application across companies.
  - To conduct a diagnostic of corporate practices so they make decisions on compliance with the Global Compact.
- o Peer-Group Meetings: periodic meetings of companies belonging to various economic sectors, which work with their suppliers with the aim of sharing experiences, difficulties, and lessons learned. In 2015 we held four meetings, with an average attendance of 26 companies. This initiative is consolidated day in, day out with stable and active members.



## Energy of being a **Supplier**



Liliana Carmona Administrative

Manager

Flag Soluciones

"The training sessions that ISAGEN provides us with are great opportunities to grow, mature and innovate; in this way we strengthen the services and products we offer. Thanks to the program structuring based on suppliers and their experiences, we have been able to redefine our 2016-2018 strategic planning".

# SUPPLIERS COLLABORATION **NETWORKS**



Communication Allies Network.

Suppliers that have reached a certain level of competitive maturity participate in collaborative settings that seek, through network interactions, to pool skills and knowledge and strengthen relations to embrace business opportunities in a productive manner.

Learn more about our networks with providers here.

Engineering and Maintenance Network (RIM, for the Spanish original): suppliers that oversee the operation of our electric power plants. They offer comprehensive and innovative solutions for the particular needs of the industry through expert, multi-disciplinary and collaborative net-outsourced knowledge. The network follows a program of monthly meetings. It has 16 members, and 12 meetings were held in 2015.

Communication Allies Network: made up of communications suppliers. Through interaction and knowledge sharing, they promote sales strategies as growth opportunities for their members. The network has a program of monthly meetings, has 19 members, and in 2015, eight meetings were held.

Administrative Services and Information Management Network (SAGI, for the Spanish original): made up of suppliers that provide administrative products or services at the management level, who participate in multiple businesses. The challenge is structuring the network so that it allows all members to contribute. It has 16 members, and four meetings were held in 2015.

## Technology Partner Network

This is our ally in the provision of technical services to customers, and consists of 30 companies that encompass engineering firms, universities, and organizations like CIDET and the Cleaner National Production Center. All these entities have transparency practices coherent with ours, and have extensive technical knowledge. 100% of clients that receive services provided by the Technology Partner Network rated satisfaction at 4.92 on a scale of 5 points, and the level of loyalty of our clients was 99.48%. Below are the top milestones for 2015:

- O We drove the establishment of individual action plans to tackle the seven fundamental topics that make up the ISO 26000 Guide for work on Corporate Responsibility. In 2015, we developed the baseline for 28 of 30 network members and undertook training sessions with partners from the Regional Medellín.
- o In the sixth edition of the Technology Partners Mini-Convention, we sought to contribute to improving Network performance through a joint focus on the main regulatory guidelines on Occupational Safety and Health applicable to the industry, and on successful practices undertaken in different sectors.
- The PREAPROBADOS strategy allowed us to continue consolidating the network autonomy model. The direct presentation of Technology Partner offerings to clients helps ensure greater adjustment of the proposed solutions to their needs, and facilitates part of the service provision cycle. In 2015, almost 49% of the offerings presented to our clients were done through this mechanism.
- O We continued working on the Network governance plan, which is comprised of three entities: Steering Committee, which defines and monitors the strategic Network development plans; the Ethics Committee, which promotes ethical practices and analyzes and makes decisions on specific cases of unethical behavior; and the Regional Commercial Committees, which determine the practicability of commercial and ethical guidelines established by other committees.
- O As a result of the entry into effect of the Measurement Code (CREG Resolution 038 / 2014) and the provisions thereof, along with the several Network Partners we carried out the identification of the technical adjustments and equipment required at the measurement points of reference for each client, and began execution.
- We held a one-day training session on Occupational Safety and Health to strengthen skills on this subject among the Technology Partners.

# Energy of being a **Technology Partner**



## Carlos Ariel **Naranjo**

**Executive Director** 

Center for Technological Research and Development of the Electric Sector (Centro de Investigación y Desarrollo Tecnológico del Sector Eléctrico, CIDET)

"We have the possibility of networking and generating other relationships, whole new businesses, greater efficiency, better energy management and control of electricity equipment.

Moreover, we have generated specialized knowledge for the benefit of ISAGEN and its industrial clients, and for us too".



# 2016 CHALLENGES

- O To update the identification of technology partners and the portfolio of services offered.
- O To adjust the management of supplier engagement to assure its alignment to the strategic needs identified by the Company.



# CONTENTS

**Human Rights Management** 

**Peace Initiatives** 

2016 Challenges



Margarita María **Díez**Environmental Professional
Energy Production

Our country faces great challenges but to build peace in the territories will be possible with the patrimony of genuine relations, based on respect and reconciliation, that contribute to a balance between economic growth, social development, and environmental protection for the effective enjoyment of rights".



# 2015 MILESTONES

- 100% of contracts include a clause in human rights that forbids the hiring of minors for activities specified by law.
- 70% of employees completed modules I, II and III of the virtual human rights course.
- 17,414 members of the armed forces and 200 security guards and surveillance staff received human rights training.
- 51% of the areas of influence participated in the dissemination of the results of the risk and impact studies on human rights.
- 100 people took part in the Human Rights Observatory and Transparency Round Tables in the Amoyá River, La Esperanza Hydroelectric Power Plant area of influence.
- 17 years of commitment to supporting peace initiatives.
- We systematized and shared our experience of engaging with the community and institutions during the process of constructing of the Amoyá power plant (2007 and 2013) through the book "Convivencia a filo de agua, relatos de esperanza," rendering this experience one of regional peace in the area.

The foundations of peace are forged from decisive protection by States of individual rights and liberties, along with the conscious decision of citizens, companies and other members of society to respect them. These foundations are strengthened through recognition and respect for diversity, pooled efforts, participation and collective trust

In this chapter, we set out the main practices and results for 2015 concerning respect for human rights and peace building:

# HUMAN RIGHTS MANAGEMENT



Our association with human rights goes back to the very foundations of the Company, and took on new relevance in 1998 when attacks on Colombia's electric power plants began, a situation that prompted us to ask ourselves: What is the role and responsibility of companies and the State in these circumstances? This concern marked the starting point of human rights management, conceived from our reality as a Company and the experiences of people who live in the areas of influence of our power plants and projects, as many of them have been scenarios of armed conflict in Colombia.

As part of our management endeavors, we formulated a policy, structured governance, implemented practices for respect and promotion of human rights based on a precautionary approach, conducted risk and impact assessments, defined a public risk strategy for the care of employees, infrastructure and operations, carried out security management as part of the engagement of armed forces and alongside private security firms, and supported human rights training activities and took part in international, national and regional initiatives.

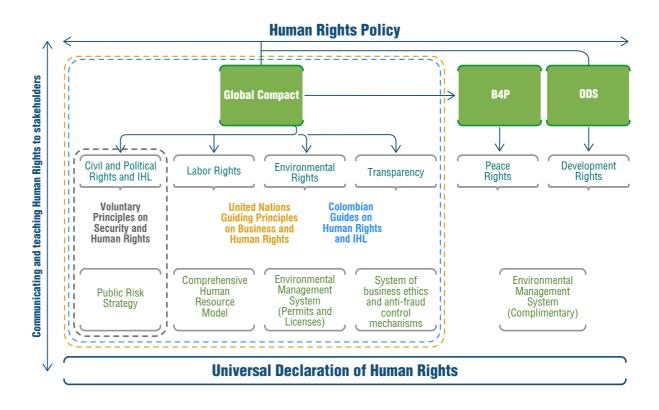
### Policies, Governance and Initiatives

In 2007 we formulated a Human Rights policy that aims to foster and promote respect in the development of corporate activities and among our stakeholders. We have incorporated the guidelines into our everyday operations and disseminated them to our stakeholders. In 2015 we signed an agreement with International Alert, which comprises, among other scopes, the review of our policy. The results will be available in 2016.



Internally, respect for human rights cuts across all of our management systems, and we have three mechanisms governing this issue:

- O Public risk committee, made up of management, that provides strategic orientation on their promotion and respect.
- Corporate responsibility committee, which promotes actions and monitoring.
- **o** Ethics Committee, which follows up requests, complaints, and grievances received by the Ethics Hotline.
- Learn about how we integrate our Human Rights Policy, as well as the voluntary benchmarks and initiatives as part of our management here.



Click here to learn more about:

- Comprehensive Human Resources Model
- Environmental Management System
- Corporate Ethics System
- Sustainable Development Objectives

## Risk and Impact Assessments

In the corporate risk matrix, the human rights risk is identified. Because of this, 100% of the areas of influence of the electric power plants have been subject to assessments of socio-political and human resource impacts and risks, which we update every four years and are assigned qualitative and quantitative metrics.

In 2014 we conducted in conjunction with the Ideas para la Paz Foundation, the update of this assessment in the areas of influence of our power plants in Eastern Antioquia, Eastern Caldas and Magdalena medio, which make up 71%.

For 2015, we draw attention to the dissemination and consultation on the results in 57% of our areas of influence corresponding to the San Carlos, Jaguas, Calderas, (Eastern Antioquia) and Termocentro (Magdalena medio) power plants. This activity is planned for the area of influence of the Miel I Power Plant (Eastern Caldas) for 2016, and in the case of the Amoyá (Tolima) and Sogamoso plants, dissemination will take place in 2017 given that we will update the assessments in 2016. Moreover, we continued the analysis of the socio-political environment of the generation projects areas, with respect to the development and pre-construction phases. Other assessments that we update are the organizational environment every two years, and the risk matrix every year.



Course in Human Rights and International Humanitarian Rights in Puerto Berrío (Antioquia). The assessments have not identified significant negative impacts on human rights arising out of our activities. However, they do show that the activities associated with the greatest risk in this regard are those related with security and surveillance. Therefore, in 2015 we assessed our main security and surveillance supplier, and found no problems related to human rights.

As for the risks that could potentially affect the communities in our areas of influence, these include International Humanitarian Law (IHL) violations by state and non-state actors in the areas of influence of the Eastern Antioquia power plants, sexual exploitation of children and adolescents by employees or contractors, and forced recruitment of children by armed groups. In this regard, we have carried out: an agreement with the International Organization for Migration (IOM) to raise awareness regarding the commercial exploitation of children and adolescents; agreements with several civil society organizations to carry out projects to prevent the forced recruitment of minors; we have also held coordination meetings with the armed forces to place emphasis on the risks identified in the field of human rights and IHL.

Given that in the past we found that the risk of child labor could materialize in the rural communities with which we sign agreements to support community development projects, across all of these agreements we uphold our obligations not to use child labor in those activities where it is prohibited by law.

In turn, no risks of violating freedom of association, participation in collective agreements or incidences of adolescent workers exposed to hazardous

work were detected at any of our power plants. We did not identify operations or suppliers with significant risk of being the origin of episodes of forced labor

As part of the self-diagnostic of minimum sustainability requirements carried out by our suppliers in 2015, we included questions related to freedom of association and collective bargaining. We expect to complete the diagnostic in 2016. In the case of forced labor, the assessment is currently underway.

Click here to learn more about:

- Minimum sustainability requirements with our suppliers
- Corporate Risk Matrix

### Our Main Focus: Prevention

We integrated the conclusions of process assessments and monitored the effectiveness of our management. In 2015 we conducted gap closure plans to prevent the materialization of risks associated with human rights, identified by the assessment update carried out in 2014. In consequence, as a preventative measure, we included clauses in 100% of the contracts and agreements that bind contractors to learn and comply with our Human Rights Policy, respect the rights of individuals directly or indirectly related to contract execution, and inform us of any complaint related to their violation or to fraud.

We amended internal regulations and the contractor monitoring instrument so that, starting from 2016, we will verify compliance with this clause, as well as adopting practices that enable extension of the commitment to these issues across the supply chain.

In addition, in 2015 we strengthened relations with the armed forces as well as inter-institutional work to disseminate our policies on human rights; bolstered our coordination with civil society actors to carry out periodic monitoring of the humans rights situation and to strengthen institutions in charge of guaranteeing and protecting them; reinforced our participation in round tables and mechanisms for verifying the occurrence of abuses by armed groups; and carried out work in collaboration with various entities to prevent the forced recruitment of children and adolescents, among other aspects that we highlight below:

#### Regional Coordination Settings

**Transparency Roundtable and Human Rights Observatory:** forums set up by the Governor of Tolima and the community since construction of the Amoyá River, La Esperanza Hydroelectric Power Plant. The goal is to ensure respect for the human rights of the inhabitants of this part of Southern Tolima by addressing reports of human rights violations and defining commitments with the competent agencies.



Transparency roundtable in Chaparral, Tolima.

In 2015 we supported one meeting of the Human Rights Observatory and one meeting of the Transparency Round Table. Almost 100 people attended each event.

**Eastern Antioquia Human Rights Round Table:** the objective of this event is to monitor the human rights situation in the region, and we participated as observers to address concerns about the actions of the Company's employees and contractors.

In 2015, we attended ten sessions that included civil society organizations, associations of human rights offices of Eastern Antioquia, representatives of the human rights Unit of the Government of Antioquia, and Universidad Católica de Oriente, to name a few.

#### Participation in Social Initiatives

Guides on Human Rights and International Humanitarian Law in Colombia: promote respect for human rights among companies and their stakeholders. As a result of their incorporation, we verified and adjusted some of our management systems, especially on matters related to land purchases.

In 2015 we participated actively in work groups in which progress was made on developing institutional improvement and supply chain guidelines, and on the initiative's strategic planning.

During the year we conducted a diagnostic of the channels for receiving Requests, Complaints, and Grievances, guided by the principles established in the Complaints and Grievances Mechanisms - Emphasis on Human Rights and International Humanitarian Law document; and in the ISO 10002 standard, Guidelines for Complaints-Handling in Organizations. On the basis of the results, we devised a corporate project for the comprehensive improvement of this area of management, and carried out periodic monitoring of the channels aimed at identifying potential situations that go against ethics or human rights.

Energy Mining Committee for Security and Human Rights (CME, for the Spanish original): we established security guidelines that include performance indicators and an annual mechanism to verify compliance. These guidelines are: management of HR risks related to security, International Alert and CME Indicators to measure the use of Voluntary Principles, management of the risks of extortion and abduction, contractual management of private security and surveillance, use of Red Cross emblems, and support to the Ministry of Defense's Integral HR Policy. The results show that our compliance is above 90%, except for the final guideline, where we will concentrate our efforts in 2016.

We stressed the materialization of the collaborative efforts of the CME in the formalization of this initiative, and the emergence of the Corporación



Regional Peace Conference. San Carlos, Antioquia.

CME, which we are involved in as a founding partner. Finally, alongside the CME and the Colombia Guides, we supported the Presidential Program on human rights, submitted comments on the National Plan for Companies and Human Rights, and participated in the related consultation exercises undertaken by the National Government.

Voluntary Principles On Security and Human Rights: we aligned ourselves to this initiative by practicing security management based on risk and impact assessments, paying close attention to the actions of the armed forces and ensuring that private services, whether or not connected with the armed forces, discharge their responsibilities out of respect for the rights and freedoms of all.

### Monitoring and Evaluation

We carried out continual monitoring of the human rights situation through the Early Warning System; the Human Rights Round Table; the Transparency Round Table; Meetings of the Community Awareness and Participation Programs; and Requests, Complaints and Grievance mechanisms, in which undetected cases of this nature were recorded.

The Ethics Hotline can be used by employees, communities, and stakeholders in general to report occurrences or irregularities that affect or could affect human rights. In 2015 we received no complaints from indigenous or Afro-Colombian communities related to rights violations. Although this issue has not been formally overseen by ISAGEN, it should be noted that by way of periodic monitoring of social networks, we identified that the Ríos Vivos organization has made baseless accusations that associate the Company with human rights violations. This has prompted us to bring these accusations to the awareness of the corresponding authorities so that they can conduct a full investigation of the case and take pertinent measures.

Through the Ethics Hotline, a complaint was received whose content may possible have been related to the abuse of human rights. However, the investigations conducted and the retraction of the person who made the complaint led to the conclusion that there were no grounds for identifying the case as an abuse, or for taking further actions or referring the matter to the competent authorities.

Moreover, we received three cases of alleged workplace harassment involving ISAGEN employees; these cases were submitted to Work Environment Committee, which is legally obliged to address such cases within the Company. The Committee judged that one of these cases did not constitute workplace harassment, closes the case, and reported its decision to the General Management and the Administration. Another case is still being investigated by the Committee, given that it was only received in late 2015. The third allegation could not be addressed because the



individual who made the complaint through the Ethics Hotline was not identified.

We respect our employees' rights and freedoms in accordance with Colombian labor law and the International Labor Organization's (ILO) Declaration of fundamental principles and labor rights. Regarding to the right to freedom of association, we provide the resources and spaces needed to exercise this right freely and peacefully. Under no circumstance do we allow discrimination on the basis of skin color, creed, political preference, etc. We do not subject anyone to forced labor or mistreatment, and we do not hire minors.

In 2015, no cases of discrimination were reported among employees or suppliers, and as such no corrective measures were necessary. However, during the round tables held with 68 participating suppliers on the issue of ethics, we expressly included non-discrimination as a topic. Likewise, no accusations were made against us of possible offenses against the environmental rights of communities, and we have not had to make any reparations to any stakeholder for human rights violations.

### **Training**

Through our corporate media, we reported to the different stakeholders on our human rights policy and management. We also carried out training activities:

#### **Employees**

In 2015, a total of 480 employees (70%) successfully completed the three-hour E-Learning modules on the Company and Human Rights. With respect to assigned employees and internship students, in 2015, 117 (18%) successfully completed the modules with three hours of training.

With respect to the risk of abduction and extortion, during the year we devised preventive communication pieces and related training throughout two sessions led by external experts, which fostered self-care strategies among new employees of power plants where the construction phase had been recently completed and the operation phase is now underway; a total of 57 individuals received training this year on the issue.

#### **Suppliers**

We held a four-hour workshop for the transfer of good practices, involving exercises to identify human rights risks and impacts; 33 individuals attended. Moreover, we held two awareness-raising talks on the issue of companies and human rights, each of which lasted two hours and was attended by 14 representatives of the Technology Partner Networks.

In addition, we ran a series of two-hour workshops to raise participants' awareness of the relationship between human rights and gender violence, attended by 72 employees and 33 contractors.

In regards to the armed forces, we we facilitated the training for a total of 17,414 people who guarantee citizen security in our areas of influence,

according to reports from the National Army under the supervision of this institution's School of Human Rights and International Humanitarian Law. We also provided training sessions on the Company's policies and procedures on human rights, aimed at security and surveillance staff. These sessions were attended by 100% of employees of our service provider (200 people), and highly satisfactory results were attained regarding internalization of the policy on human rights, IHL, and national and international initiatives. In connection with the above, we embarked on a project to disseminate the CME's recommendations on managing risks of abduction and extortion, which extends to contractors in the areas of influence of the power plants and sites.

#### Communities in the Areas of Influence

In coordination with other civil society organizations and local state entities, we supported human rights training for local organizations: 39 leaders in Puerto Berrío (Antioquia) and 30 leaders in the township of Las Hermosas (Tolima).



"Peace, Reconciliation and Social Ethics" conference ISAGEN's headquarters in Medellín.

## Energy of being a **Civil society** organization



#### Juanita Henao

Coordinator

**Strengthening Communities** and Local Democracy Project Conciudadanía

"In conjunction with ISAGEN we have a project in the region of Eastern Antioquia so that the government plans can include a citizen focus. Insofar as we can intervene and converse with social players, we can bring about the transformation of areas".

In addition, we held seven forums to discuss the antidrugs policy in the municipalities of Southern Tolima; the training of 210 leaders from seven municipalities in Eastern Antioquia to strengthen democracy and peace; and the training of local government candidates on the building of citizen agendas in this region. There, we also assisted efforts to support the human rights-related activities of the Governmental Ombudsman Office for the connection between the above and the 23 new mayors.

Moreover, we supported the Psychosocial and Reproductive Sexual Healthcare Program in the area of influence of the Sogamoso Hydroelectric Power Plant (Santander) for implementation of the prevention strategy on rights and reproductive sexual health that covers 500 children, youth and adolescents, women, families and members of the educational community.

#### Society

As part of the workshop on companies and development organized by the Spanish Agency for International Development Cooperation, we presented our human rights management efforts.

Moreover, we participated as speakers in the Forum on Companies and Human Rights organized by the Human Rights Office of the United Nations in Guatemala. We disseminated our practices as regards commitment and support of the United Nations Guiding Principles, and we gave evidence of our noteworthy experience during construction of the Amoyá River, La Esperanza Hydroelectric Power Plant, gleaned in the consultation process with communities and institutions through the different dialog spaces, such as the Transparency Round Table and the Human Rights Observatory.

This experience was documented by way of a publication to which nationally-renowned journalists contributed, that was socialized in 2015 in academic settings with companies and journalists.

In 2016, we disseminated these practices with the community, aided by the Department for Post-Conflict of the Ministry of Post-Conflict, Human Rights and Security, and the Network of Programs for Development and Peace (REDPRODEPAZ).



Learn more about the experience of the relationships with the community and institutions during the construction of the Amoyá power plant here.

# PEACE INITIATIVES

Lasting peace, as well as being a right of all peoples, is a requirement for the exercise of all other human rights and responsibilities. Since 2013 we have taken part in the Business For Peace initiative of the Global Compact, which seeks to motivate companies to be generators of change in situations of conflict as a contribution to peace and coexistence in the areas in which they operate.

We got involved in Reconciliation Colombia, and as a fruit of the endeavor, which was coordinated in 2015, we consolidated this initiative and its establishment as a corporation, in which we are a founding partner.

As part of the commitment we assume, we contributed to creating solid cultural foundations for the construction of peace and, where required, we provided humanitarian aid. As well as promoting training on socio-political issues, human rights, and IHL, we also supported awareness-raising and education on the commitment of everyone for peace, reconstruction of the historical memory with victims of the conflict, prevention of forced recruitment of minors, as well as other activities.

We stress our work alongside the Amigos del Casa de la Memoria Museum Corporation. In 2015 we managed to incorporate this Corporation as a body that supports the Casa de la Memoria Museum, an initiative of the City Hall of Medellín to promote actions that contribute to the reconstruction, awareness-raising and inclusion of the memory of armed conflict in the city.



Learn about the peace initiatives we support here.

## Energy of being a **Civil society** organization



#### Jorge Tovar

Former Director of the **Development Program** for Peace in Central Magdalena (PDPMC, for the Spanish original)

Coordinator of the National Network of Regional Programs for Development and Peace (Redprodepaz)

"In our relationship with the Development Program for Peace for territorial progress and peacebuilding, we have jointly achieved the execution of projects and the strengthening of human capital through the strategic lines we work on: citizenship and state, sustainable comprehensive development, and a culture of peace".



# 2016 CHALLENGES

- O To disseminate the human rights risks and impacts assessment corresponding to the Miel I Hydroelectric Power Plant, and update the assessments pertaining to the Amoyá River-La Esperanza and Sogamoso power plants.
- O To continue supporting and strengthening peace and reconciliation initiatives while taking into account the countrywide challenges, derived from the peace and post-conflict agreement.
- O To strengthen the promotion and training of our stakeholders on human rights and peace-building.



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Margarita Rosa **Giraldo** 

Director Corporate Relations

"We promote a culture aimed at the service of the people groups with which we engage and the construction of relationships founded on ethics, trust, respect, openness and dialog, privileging the common over the private good, in order to contribute to creating shared value and prosperity for society".



# 2015 MILESTONES

- We updated our policy on stakeholder engagement by stressing responses to requests, complaints and grievances, accountability, and the systematization of results and lessons learned.
- We made progress on structuring the Management System for stakeholder relations, in order to work toward a corporate culture aimed at the service of the people groups with which we engage.
- We analyzed the results we obtained in the 16 meetings held in 2014 with 347 representatives from stakeholders, an input employed in the business planning and work plan definition process.
- We completed the methodological design and agreed upon scopes to carry out an integrated evaluation of the impact of our relationships.
- We signed an agreement with CECODES to continue pooling technical, administrative, and financial efforts so as to contribute to the training of journalists and communicators on issues of sustainability.
- We implemented relationship risk precautions to identify, prevent, and manage money laundering, financing of terrorism, reputational and contractual risks.

We have elected to exceed expectations in stakeholder relations, and to link these relationships with a corporate vision of relevance to both parties. We focused on harmony, responsibility and productivity by understanding their characteristics and diversity, reaching agreements and establishing work issues on the basis of the dynamics of the environment and the sustainability. This chapter highlights the main achievements of 2015:

# THE ENERGY TO ENGAGE





Through our management, we seek to establish sustainable relations with stakeholders based on their recognition as human beings, thereby contributing to the joint creation of value for the Company and society alike. To this end, we have established a policy on stakeholder relations, which provides guidance on strengthening links with them by promoting responsible corporate governance.

In 2015 we made some changes to this policy in an effort to make explicit our commitment to addressing requests, requirements, complaints and grievances in a timely manner and pursuant to the law; the importance of the accountability process in disclosing relevant and timely information on

## Energy of being a **Knowledge community**

compliance with commitments undertaken with others, management of business impacts, results and challenges; and, finally, the valuable systematization of results and lessons learned on engagement to generate collective knowledge and enrich company management. We are going through a stage of evolution that allows us to build upon our agreements, relevant issues and measurements of impacts.



See our Policy on stakeholder relations here.

## Relation Management **Systems**

We structured a management system that will allow us to work in a systematic and coordinated fashion on stakeholder relations, promoting a business culture geared toward responding comprehensively to their needs and expectations. This is based on best international practices in this regard such as the AA10000 standard, and will be implemented in 2016.



#### Erick **Pichot**

**Executive Director** 

International **Center for Social** Responsibility and Sustainability (Centro Internacional de Responsabilidad Social v Sostenibilidad)

"We have built a relationship with ISAGEN based on trust and mutual value creation, generating content and knowledge and contributing to matters of sustainability and corporate sustainability through publications that benefit stakeholders".



#### **Omar** Flórez

**Ex-Business** Coordinator

**Parque Explora** 

"We work mutually with ISAGEN on issues focused on science. technology and innovation, the environment and astronomy. We also have a 3D screening room with movies suitable for all audiences. This alliance has allowed us to accomplish its vision of making people useful for society".

### **Relations Monitoring**

Through the dialog sessions carried out in 2014 with the different stakeholders (16 meetings with 347 participants), in 2015 we defined the focal points for the short, medium and long term, in fulfillment of the commitments and relevant topics expressed in different meetings or participatory settings. This exercise formed part of the business planning process, and is a sign of our commitment to them. We are aware that dialog forms the basis of socially responsible management with an interest in generating social and environmental value.

# Assessment of Relations: An Integrated Study

We conducted the methodological design and agreed upon scopes with the teams responsible for engaging with Company stakeholders to carry out, in 2016, an integrated assessment that will cover qualitative and quantitative aspects. The aim is to explore, in greater depth, the different aspects of relevance to relations, comprehensively evaluate the impact of these, and ascertain the perception of stakeholders on



corporate management of areas such as leadership, corporate governance practices, and business ethics, as well as environmental, financial, and social performance. We conduct this assessment every two years, the latest being in 2014.

#### Risk Prevention

Before formalizing contractual relations, we ask an external firm to verify the risks involved in stakeholder relations. In 2015, we made some modifications to the procedure for monitoring risks, which will help strengthen the process of identifying, preventing, and managing money laundering, financing of terrorism, reputational and contractual risks.

# UNITED FOR RESPONSIBLE JOURNALISM

In 2015 we signed a new inter-institutional cooperation agreement with the Colombian Business Council for Sustainable Development (CECODES), with the aim of pooling technical, administrative and financial efforts to contribute to the training of journalists and communicators from the Network of Journalists for Sustainable Development. Topics of communication and sustainability are covered through virtual courses, gatherings, monthly publications and granting of scholarships.

Moreover, we conducted an analysis of the Encomunidad media network, made up of organizations located in the areas of influence of our power plants that produce and/or broadcast content aimed at the communities. The diagnostic allowed us to identify that the radio and television providers are still in the process of meeting the requirements necessary to form a network. Therefore, we decided to explore new options to work toward our commitment to contribute to their sustainable development and institutional strengthening, and to human rights promotion and respect.

Further, we promoted gatherings that generated trust and understanding of the company's situation regarding milestones and cicrumstances: we invited the media to the



Media roundtable: territory, peace and post-conflict.

opening of the Sogamoso Power Plant in January, resulting in the attendance of 70 journalists, while 19 journalists were present at the Ordinary General Meeting of Shareholders in March, and 52 journalists participated in the roundtable titled "The Media: Territory, Peace and Post-Conflict" organized by CECODES and ISAGEN, where we shared the book "Convivencia a filo de agua, relatos de esperanza," which narrated the experience of engagement with the communities and institutions in Southern Tolima during the construction of the Amoyá River, La Esperanza Hydroelectric Power Plant.

# MEDIOS VIRTUALES



We developed a digital communication strategy focused on strengthening engagement with stakeholders through dialog, communication and interaction, with a view to generate an emotional connection between the user and ISAGEN. As part of this, we stress the work of listening to and interacting with the public through dialogs, which helps us meet our commitment to establish mutually beneficial relations that promote informed and responsible citizenship, while also serving as an opportunity to educate and raise awareness.

In 2015 we made progress on improving our digital media, including our website, Facebook page, YouTube channel and e-newsletters. As to usability, we facilitated navigation based on organized, prioritized and integrated information display and on design. In the case of accessibility, we implemented practices that contribute to the visibility of the communication pieces through different

devices and for different individuals with disabilities. This ultimately allowed for the satisfaction of users' needs and interests and the promotion of a user-friendly and accessible experience.

This year also provided an opportunity to analyze new digital media trends and good practices, which were implemented in the development of communication pieces and campaigns. However, there are still technological limitations on the pursuit of more interactive designs and the application of technologies such as HTML5.

Through the official and unofficial social networks, we conducted monitoring and follow-up of references to the Company. We were able to maintain a positive reputation on these networks, and the potential crises that were managed did not give rise to reputational problems.

Below we share the main results of our management of virtual media in 2015. These results are presented as a result of transparent, ethical and responsible communications and campaigns with stakeholders.

As to digital media, we consolidated interactions, with very significant increases in most indicators. This is seen in the following data:

#### Website

	2014	2015	Variation (%)
Visits	595,990	401,662	-32.61
Page Views	1,405,169	1,248,827	-11.13
New Users	237,330	249,914	5.30
Time	2.34	3.20	36.75

#### Facebook

	2014	2015	Variation (%)
Publications	631	621	-1.58
Likes	8,723	15,012	72.10
Comments	874	835	-4.46
Shares	775	2,740	253.55
Followers	1,329	2,734	105.72

#### YouTube

	2014	2015	Variation (%)
Videos Published	37	67	81.08
Video Playback	227,820	262,452	15.20
Likes	387	787	103.36
Dislikes	19	59	210.53
Comments	45	92	104.44

# COMMUNICATION, PARTICIPATION AND DIALOG MECHANISMS

We have communication and feedback mechanisms established for each group of stakeholders, through which we promote dialog on topics of common interest and of everyday relevance to relations, and in turn these topics are connected with pertinent issues identified by the stakeholders.

Stakeholders	Participation and Dialog Mechanisms	Frequency of Mechanisms	Dialog Topics <sup>66</sup>
Employees	Intranet: 1,129,841 visits Corporate Meeting: 2 Executive meetings: 10 ENISAGEN Magazine: 2 editions Tele-magazine: 2 broadcasts Corporate social network Yammer: 565 members and 44 groups created Internal communication inbox: 134 104 responses to requests or concerns Ethics discussion sessions: 3 roundtables with employees and 1 roundtable with suppliers Human resources Management at the Power Plants: 5 visits COPASST contact mailbox Requests received: 10 Requests overseen: 9 Requests being processed: 1	Daily Semi-annual Monthly Quarterly Quarterly Voluntary  Mandatory  Quarterly  Annual	<ul> <li>Expansion plan</li> <li>Opportunities for employees offered by the Comprehensive Human Management Model (Schools, volunteering, flexwork, self-care, and wellbeing plans, among others)</li> <li>Interactive ethics</li> <li>Assessment of the year and the challenges of next year</li> <li>Efficient use of resources (environmental campaigns, water, paper, transportation, carbon footprint)</li> <li>Preventative safety measures</li> <li>Sale of the government's shares</li> </ul>

Stakeholders	Participation and Dialog Mechanisms	Frequency of Mechanisms	Dialog Topics <sup>66</sup>
Suppliers (goods and services). Includes technology partners.	Línea Productiva virtual newsletter Red Productiva virtual newsletter Responsible Network mailbox Productive Solutions Inbox Supplier Day: 281 attendees	Monthly Quarterly Full-time Full-time Once per year	<ul> <li>Joint value generation</li> <li>Requirements in sustainability</li> <li>Social and ethical innovation and collaboration</li> <li>Promotion of sustainability practices</li> <li>Supplier development</li> <li>Academic, social and corporate relations</li> <li>Identification of sustainability risks associated with the value chain: water, climate change, human rights, among others</li> <li>Minimum Sustainability</li> <li>Progress made in supplier relations</li> </ul>
Financial Service Suppliers	Website Teleconferences Corporate presentation One-on-one meetings: 51 Training sessions: 30 E-mail and physical address: 1,900  Reporting and presentation of quarterly financial statements Dialog Conventional meetings and teleconferences	Full-time N/A N/A Full-time Full-time Minimum period to issue the newsletter: Three times per year Quarterly Annual Full-time	<ul> <li>Ethics</li> <li>Human Rights</li> <li>Occupational Safety and Health</li> <li>Environmental Protection</li> <li>Business Management (strategy, operations, human development, commercial management)</li> <li>Strengthening of dialog and engagement</li> <li>Results and financial projections, current and projected cashflow</li> <li>Credit indicators</li> <li>Commercial strategy</li> <li>Growth strategy</li> <li>Sustainability</li> <li>Guidelines and instruments to promote the financing of energy generation projects based on non-conventional sources</li> <li>Sustainability risks and impacts for making investment decisions</li> <li>Financial inclusion</li> <li>Corporate governance and business ethics practices.</li> <li>Communication channels</li> </ul>

Stakeholders	Participation and Dialog Mechanisms	Frequency of Mechanisms	Dialog Topics <sup>66</sup>
Customers	Línea Viva (Live Wire) Magazine Annual convention Regular visits Service hotline Direct Line Mailbox	Bi-monthly Annual As per clients' needs Full-time Full-time	<ul> <li>Service quality and reliability</li> <li>Energy market: regulation, supply, demand and price</li> <li>Customer service</li> <li>Technical services and projects</li> <li>Comprehensive Energy Management</li> <li>Energy consumption</li> <li>Demand-side share</li> <li>Business ethics</li> <li>Alternative energy</li> <li>Climate Change Innovation</li> <li>Co-generation and self-generation</li> </ul>
Investors or majority shareholders	Management results teleconference Training Personalized, telephone, and email service Meetings of Shareholders Shareholder Day Service hotline Shareholder chat E-mail Requests received: 2,495 Requests overseen: 2,495 Requests being processed: 2,483	Quarterly Annual Full-time Annual Annual Full-time Full-time Full-time	<ul> <li>Financial strength.</li> <li>Growth</li> <li>Corporate financial statements</li> <li>Responsible investment</li> <li>Corporate Governance</li> <li>Climate strategy (mitigation and adaptation)</li> <li>Social and Environmental Management</li> <li>Sustainability indices</li> <li>Energy market conjuncture</li> <li>Impact of IFRS on the financial results</li> <li>Financial education</li> </ul>
Trade Unions and Clusters	Energy-industry association meetings Addressing requirements	Full-time Full-time	<ul> <li>Energy market: functionality rules, defense and strengthening</li> <li>Industry regulations (tax, accounting, energy, and environmental requirements)</li> <li>Energy accessibility, availability, and acceptance (World Energy Council international energy objectives) - energy trilemma</li> <li>Renewable Energy and Energy Efficiency</li> <li>Ethics and transparency</li> <li>Construction of large infrastructure projects in complex areas</li> </ul>

Stakeholders	Participation and Dialog Mechanisms	Frequency of Mechanisms	Dialog Topics <sup>66</sup>
Opinion generators	Electronic newsletters: 630,140 sent Webmaster Emails: 646 Press releases: 16 Corporate Responsibility Mailbox: 25		<ul> <li>Management of growth and its impact on society and the country</li> <li>Adaptation of the Company's philosophy into newsworthy occurrences and current affairs aimed at the public</li> <li>Ethics, transparency, and journalist training</li> <li>Independence and respect for autonomous reporting</li> <li>Good sustainability practices as a benchmark for industry and society</li> </ul>
Communities in areas of Influence	Informative, consultation and consensus meetings Workshops and training sessions Round tables and public hearings Request, complaint and claim service system Surveys  ENCOMUNIDAD Media. Monthly, alternately  Guided visits	Full-time Whenever required Full-time Applied during Community Awareness and Participation Program meetings at least once per year Once per month on the newsboard, and the following month in the newsletter Full-time	<ul> <li>Impacts of power plant operations and construction projects, and those from environment on ISAGEN</li> <li>Planned and sustained areas.</li> <li>Use of Legal Transfers</li> <li>Self-Management Training</li> <li>Generation of local and regional employment</li> <li>Peace and Human Rights Initiatives</li> <li>Management of river basins and natural resources</li> <li>Protection of flora and fauna</li> <li>Alliances and collaboration</li> <li>Institutional strengthening and coordination</li> <li>Education for community development</li> <li>Agroecology</li> <li>Women empowerment</li> <li>Building skills in the local workforce</li> </ul>

<sup>66.</sup> Dialog topics with each stakeholder form part, in turn, of corporate material topics that guide company management and define the structure of the management report.

### Other Meeting Opportunities

Below are some of the interaction spaces held with stakeholders to deal with topics of common interest in 2015:

- O 14th Annual ISAGEN Convention "Collaborative Culture for Momentous Challenges": space in which renowned business leaders participated by sharing their exemplary experiences in teamwork and innovation initiatives that resulted in considerable impacts in their companies. Other topics included in the academic agenda were sustainable development, climate change, development of innovative projects, and use of alternative energy sources in the industry, among others. The event brought together 64 end industrial clients, and 43 representatives of Technology Partner Network members and domestic network operators.
- O Shareholder Day: we met with 154 shareholders, 75 of them in Medellín and 79 in Bogotá, in order to provide more information on our management, climate change, the economy, and the securities market. At the end of the event we held a motivational lecture on the importance of discipline, consistency, and teamwork to being better people.
- O Breakfast with Analysts: we met in the city of Bogotá with ten analysts and investors to share responsible investment topics and their international trends, so that they can incorporate environmental, social and corporate governance factors as part of investment analysis.
- O Analyst Day: in December, we held training for analysts and investors in the cities of Medellín and Bogotá, attended by 17 people. The event covered the current dynamics of the electricity market in Colombia in relation to the current energy market situation, the main regulatory changes, and their impacts on the sector's functioning.



Shareholder Day in Bogotá.

- O Journey to the Center of a Power Plant: we held the third edition of the contest in which shareholders were required to solve "ISAGEN missions," in which clues were to be found on our website and social networks. 152 shareholders participated and 15 won a guided tour of the Sogamoso Power Plant to learn more about the energy generation process and our environmental management.
- O Dialogs with Financial Service Providers: we took part in listening activity with 19 financial service providers to find out their perceptions of the commitments undertaken with them, identify topics of relevance to relations, and learn the indicators for measuring the impact on relations. As a result, we found that the Company's sustainable and collaborative engagement stands out, while fulfillment of the commitment is also recognized.





Journey to the Center of a Power Plant. Sogamoso Hydroelectric Power Plant.

Partner Network Conference.

- O Supplier Day: this was an opportunity for our allies to participate in a range of workshops oriented toward the needs of today's businesspeople, and to reflect on the essence of being human and how humankind base their relations on language and communication, and from there they build their reality and erect bridges toward mutual understanding and interrelations. In 2015, more than 400 people participated over two days. The event featured a supplier relations conference and a conversation workshop.
- O Supplier Relations Conferences: we held this meeting in El Espinal (Tolima) with the participation of 90 suppliers, allowing us to learn of the offering of companies and strengthen the company's relations with suppliers from the areas of influence of the power plants and projects.
- O Meetings and Roundtables: we held 30 meetings with the participation of 400 suppliers who shared the practices of different business groups, helped each other answer questions, shared assessment results and addressed relevant topics with suppliers.

- O Peer Network: we held four meetings in which a total of 103 providers from numerous economic sectors participated. Alongside them, we planned the meetings and visited companies to share in their methodology on supplier management.
- O Water conference: We participated in this national initiative in conjunction with the El Espectador newspaper and the World Wildlife Fund for Nature. In this event, academic spaces were proposed on water governance; the 4th edition had 434 attendees.

Click here to learn more about:

- Minutes of the Water Conference
- Water Conference Magazine
- Suppliers Meeting



# 2016 CHALLENGES

- O Implement the stakeholder relations management system.
- O Conduct a comprehensive study for the effective and consolidated measurement of corporate relations with stakeholders, integrating qualitative and quantitative assessments.
- O Continue offering promotional spaces alongside interest groups for good sustainability practices, such as water governance, climate change, peace, and human rights, among others.





# ENVIRONMENTAL INDICATORS

# GHG DISTRIBUTION BY SOURCE

Greenhouse gas emissions (GHG) and the intensity of the emissions by direct and indirect sources are described in the Integral Management of Climate chapter of the 2015 Management Report. Greenhouse gas distribution is presented below by source in 2013, 2014 and 2015:

#### **GHG Sources**<sup>67</sup> (2013-2015)

	2013		201	4	201	5
	Tons CO <sub>2</sub> e	%	Tons CO <sub>2</sub> e	%	Tons CO <sub>2</sub> e	%
CH <sub>4</sub> and N <sub>2</sub> O/ Waste management	187.6	0.020	221.0	0.019	236.2	0.022
CH <sub>4</sub> / Wastewater	79.3	0.009	54.4	0.005	41.1	0.004
CO <sub>2</sub> / Energy consumption	5,200.7	0.558	4,232.2	0.367	2,686.3	0.252
CO <sub>2</sub> / Fossil fuels from ISAGEN transportation	116.3	0.012	459.2	0.040	372.5	0.035
CO <sub>2</sub> / Fossil fuels from contractor transportation	66,902.0	7.182	15,983.3	1.386	3.476.4	0.326
$\text{CO}_2$ and $\text{CH}_4\!/$ Emissions from reservoirs	0.0	0.000	107,823.7	9.353	91,969.9	8.629
CO <sub>2</sub> / Thermal electricity generation	788,327.5	84.630	990,950.3	85.960	964,024.9	90.444
CO <sub>2</sub> / Leaks of extinguishing agent	5.1	0.001	2.6	0.000	3.1	0.000
CO <sub>2</sub> / Leaks of refrigerant gas	202.3	0.022	420.7	0.036	660.2	0.062
SF <sub>6</sub> / Medium and/or high voltage equipment	0.0	0.000	667.4	0.058	1,647.8	0.155
CO <sub>2</sub> / Paper consumption	7.2	0.001%	7.3	0.001	9.0	0.001
CO <sub>2</sub> / Cement consumption	70,476.0	7.566%	31,980.7	2.774	753.5	0.071
Total	931,504	100	1,152,803	100	1,065,881	100

<sup>67.</sup> The 0.0% percent values do not necessarily mean that there were no GHG, but that minimal results were obtained.

# Nitrous Oxides (NOx) and Other Significant Emissions

Our activities related to GHG emissions from major sources do not include Sulfur Oxide emissions (SOx), as we do not use fossil fuels that contain sulfur. As regards Nitrogen Oxide (NOx), the only power plant that produces this gas is Termocentro (300 MW) and it is recorded in the calculation of CO<sub>2</sub> equivalent emissions. This thermal power plant runs on a combined cycle with natural gas using a technology that is low in NOx and closed cooling. This table presents the emissions of each Unit of the Termocentro Power Plant by weight over the last three years:

#### Nitrous Oxides (NOx) and Other Significant Air Emissions in mg/m³ (2013-2015)



_	2013
Unit <sup>-</sup>	Unit 2
21.9	93.6

2014
Unit 1 Unit 2
32.75 12.76

2015 Unit 1 Unit 2 27 102

mg/m³

In all cases, the NOx emission values are in compliance with Resolution 909 / 2008, which limits maximum concentration for this parameter to  $120~\text{mg/m}^3$ .

### Comprehensive Waste Management

Employees and contractors play an active role in comprehensive waste management. Waste is managed in accordance with its characteristics, as follows:

- O Usable: Reuse, composting, earthworm farming and recycling.
- O Hazardous: managed by an external agent authorized by the competent environmental authority.
- o Inert: Final disposal in landfill.



#### Generation of Non-hazardous Waste

Below are the quantities in tons of non-hazardous waste generated between 2013 and 2015:

	2013	2014	2015
Electric Power Plants	247.75	277.69	394.65
Electric Power Plant Projects	259,823.16	2,099.55	-
Medellín Headquarters	-	27.87	30.73
Total	260,070.91	2,405.11	425.38

Throughout the year, we continued to meet the expected annual goal of recovering a percentage equal to or greater than 65% of common and special solid waste generated at electric power plants and this percentage has increased due to the good practices of separating at the source and using products that generate less waste.

In 2015, 394.65 tons of non-hazardous waste were generated at the electric power plants and 30.73 tons were generated at the corporate headquarters in Medellín. The quantity of waste generated at the power plants increased compared to 2014, due to the startup of the Sogamoso Hydroelectric Power Plant.

At ISAGEN's corporate headquarters in Medellín, there was an increase in the waste taken to the landfill. However, there are ongoing awareness campaigns for personnel to improve separation at the source.

#### **Amount of Waste Recovered**

In 2015, 282.26 tons of waste were recovered at the electric power plants and 15.43 tons were recovered at the corporate headquarters in Medellín. These values represent 71.5% and 50.2% of waste recovery, respectively.

	2013			2013 2014		2014			2015		
Indicator	Power plants	Power plants Projects	Total	Power plants	Power plants Projects	Headquarters	Total	Power plants	Headquarters	Total	
Total Used (Tons)	217.32	165,276.08	165,493.4	246.67	1,557.65	10.37	1,814.69	282.26	15.43	297.69	
Average Recovery Percentage	87.7	64	64	88.8	74.2	37	75.5	71.5	50.2	70.0	



#### **Generation of Hazardous Waste**

Below are the quantities of hazardous waste generated by the operation and maintenance activities at the electric power plants:

Waste in kg	2013	2014	2015
Hospital waste	91.87	506.80	154.08
Regular batteries	407.40	465.45	433.98
Electronic scrap	1,046.30	1,261.80	2124.24
Solvents	6,025.09	12,994.63	6942.24
Impregnated waste	22,630.15	96,252.00	9913.8
Ink cartridges	7,716.90	563.30	50.8
Substance containers	1,211.60	811.80	1694.64
Used oils	72,690.91	383,584.72	28569.2
Batteries, acid and lead	6,148.75	7,356.10	1642.01
Light bulbs	1,016.19	1,577.66	820.04
Other	20,089.35	162,913.20	15.247.60
Total	139,074.51	574,341.46	67.592.63

The treatments of hazardous solid wastes are:

- Re-refining of hydraulic and dielectric oils<sup>68</sup>
- Deactivation
- Incineration
- Stabilization
- o Disassembly (electronic scrap)
- Reuse
- Management of refrigeration units
- Final disposal in hazardous waste landfill

All hazardous waste generated in 2015 was managed with the third parties duly authorized by the environmental authorities.

<sup>68.</sup> Recovery of used oil for reuse as a raw material in different applications.

#### Inventory and Management of PCBs<sup>69</sup> in Equipment

Comprehensive environmental management of equipment and waste that consists of, contains or is contaminated with polychlorinated biphenyls (PCB) pursuant to Resolution 0222 / December 15, 2011 of the Ministry of the Environment and Sustainable Development.

We carried out the following activities in 2015:

- We updated the information and technical details of the electromechanical equipment immersed in dielectric oil for the PCB inventory, pursuant to Resolution 0222 / December, 2011 of the Ministry of the Environment and Sustainable Development.
- We updated the environmental chapter attached to the reference documents of the Company's procurements, which consisted of including the dielectric oil management number in compliance with Resolution 0222 / 2011 mentioned above, among other aspects.
- We moved forward in Stage 2 of the Action Plan for PCB management, consisting of sampling dielectric oil of the equipment that contains PCBs. We got the result of the laboratory analysis indicating that the equipment inspected is free from PCBs. In 2016, we will carry on with the activities defined in Stage 2, corresponding to the labeling of the equipment.

Stage 2	Taking oil samples and marking and labeling equipment	2015 to 2017
Stage 3	Replacement of equipment with PCBs, final disposal and new labeling	2016 to 2018

69. Polychlorinated biphenyls (PCB), a substance considered a pollutant.



DISTRIBUTION OF VALUE TO STAKEHOLDERS

This fourth financial statement refers to the Company's social dynamics and establishes a link between the financial statements and the social and environmental aspects thereof.

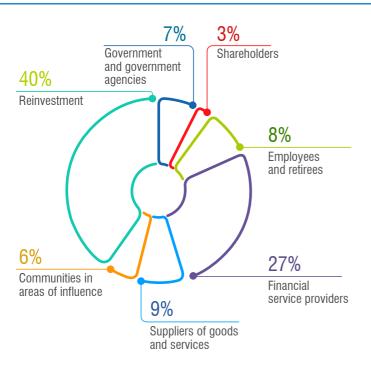
Figures for 2014 and 2013 have been restated in IFRS terms, since the 2015 figures correspond to ISAGEN's first official financial statements based on these standards, in accordance with the convergence process considered in Law 1314 / 2009, materialized by Decree 2784 / 2012 and the amending decrees thereof, accepted by Colombia's General Accounting Office.

# NOTES ON THE ECONOMIC VALUE ADDED

	Notes	December 2015	December 2014	December 2013
Revenue	1	2,844,022	2,329,618	2,002,815
Direct costs	2	1,202,739	1,199,102	946,003
Economic value generated		1,641,283	1,130,516	1,056,811
Governmental and Non-governmental Organizations	3	116,586	136,641	138,924
Investors	4	44,757	141,701	98,401
Employees and retirees	5	138,319	122,522	112,876
Financial Service Providers	6	442,289	80,575	55,115
Suppliers of goods and services	7	141,586	119,766	114,846
Communities in Areas of Influence	8	93,817	63,726	60,515
Reinvestment	9	663,929	465,585	476,134
Economic value distribution		1,641,283	1,130,516	1,056,811

Values expressed in millions of COP.

#### Value Distribution



The economic value generated has been distributed among stakeholders: the Company, investors, employees, financial service providers, suppliers of goods and services, communities in the areas of influence, and the Company itself through reinvestment

#### Note 1: Revenue

In 2015 revenue of \$2,844,022 millons was reported, up 22.08% compared to the previous year, mainly explained by growth in sales on the spot

market, which were 95.85% greater than those of the previous year, among which it is important to mention the fastest growing AGC (automatic generation control service).

Revenue from gas sales was greater than the previous year, due to the sale of gas surplus at the beginning of the year, given that the market conditions did not expect shortages and El Niño weather conditions.

The following table shows the balances of the revenue accounts as at December 31:

		2015
1,568,006	1,865,893	2,013,793
463,347	546,509	967,945
-100,535	-94,887	-159,613
63,401	2,838	12,759
8,034	8,689	8,523
562	576	615
2,002,815	2,329,618	2,844,022
	463,347 -100,535 63,401 8,034 562	463,347 546,509 -100,535 -94,887 63,401 2,838 8,034 8,689 562 576

Values expressed in millions of COP.

### Note 2: Expenses

Direct costs rose \$ 3,637 million compared to 2014, which represents a 0.3% increase compared to the previous year.

This concept includes the costs of tangible goods and services related directly with production, and taxes were excluded because they are a part of the amount paid to the State and the Company, along with the compensation components that were reclassified into employees and retirees.

Accordingly, the total value of direct costs is shown in the following table:

	2013	2014	2015
Purchases	457,025	736,761	663,027
Charges for using and connecting to the NTS	228,920	198,066	217,379
Fuel	252,064	254,762	309,039
NDC-CRD-CES	7,994	9,513	13,294
Total direct costs	946,003	1,199,102	1,202,739

The methodology requires the separation of these costs, but the beneficiaries thereof are service providers, so they could have been added to the corresponding entry in Note 7.

Values expressed in millions of COP.

# NOTES ON THE VALUE GENERATED AND DISTRIBUTED

The economic value generated in 2015 was \$ 1,641,283 million which was distributed among different stakeholders, as shown in Notes 3 to 9.

Note 3: Government and Non-governmental Organizations

ISAGEN pays significant sums in taxes and contributions to the local entities where it operates. These are additional to the national taxes, contributions and other charges. The contributions are used specifically for the environmental conservation and sustainable development of these regions.

The added value distributed to Society is shown in the following chart:

	2013	2014	2015
National taxes	115,342	114,674	89,446
FAZNI	11,822	12,096	15,564
Contributions	8,025	7,824	9,192
Municipal taxes	3,730	2,047	2,384
Departmental taxes	5	0	0
Total Government and governmental organizations	138,924	136,641	116,586

Values expressed in millions of COP.

National taxes include income tax, income tax for equality (CREE), which the government uses to finance the expenditure of the ICBF, SENA and the social security system in health, and financial transaction tax. The vehicle tax is a departmental tax, and industry and commerce tax, land tax, capital gains and outdoor advertising tax are municipal taxes.

Taxes and contributions have decreased primarily due to the tax credit balance receivable for income tax and the decrease in the CREE tax.

The legal stability contract signed between the Company and the Ministry of Mines and Energy remains in force, although it does not apply to the CREE tax.

Contributions are distributed among the different oversight and control entities, such as: the General Comptroller of the Republic, the Gas and Energy Regulatory Commission and the Superintendence of Residential Public Services, among others.

FAZNI funds are used for plans, programs and projects to invest in energy infrastructure in unconnected areas in accordance with the regulations. However, these funds are not managed directly by ISAGEN.

ISAGEN does not receive subsidies from any entity, region or country. However, in line with legal regulations, the Company collects and transfers 20% of the energy consumption of industrial clients as subsidies to residential clients in socio-economic classes 1, 2 and 3.

### Note 4: Investors

In accordance with the shareholder structure, the value is distributed to the owners using the available profits or those subject to future distribution.

	2013	2014	2015
Net Profit	370,387	358,400	297,382
Reserve, Art. 130 of the Tax Code	-72,481	-74,130	-86,733
Release Reserve, Art. 130 of the Tax Code	16,352	22,434	23,946
Credit rating reserve	-215,857	-165,003	-189,838
Equity Tax	-14,590	-44,990	-115,753
Total to investors	83,811	96,711	-70,996

Value expressed in millions of COP.

Reserves include the legal reserve of Article 130 of the Tax Code and the reserve to maintain the Company's credit rating, in order to ensure the funding of the investment plans and projects carried out thereby. Both the creation and release of the reserve are carried out based on information of the previous year, given that the distribution of profits of the current year depends on the decision made in the Ordinary General Meeting of Shareholders.

## Note 5: Employees

The following were distributed, among others: salaries and retirement pensions, bonuses, vacation, training and social wellbeing allowance, sports and recreation expenses, travel allowance, social security payments, union dues, contributions to family compensation funds and occupational hazard insurance.

	2013	2014	2015
Salaries and retirement pensions	87,561	96,896	109,419
Contributions and benefits above payroll	25,315	25,626	28,900
Total employees	112,876	122,522	138,319

Value expressed in millions of COP.

Labor obligations are adjusted at the end of each fiscal year based on the current legal regulations and labor agreements.

The Company has an independent trust administered by Fiducoldex to ensure the payment of pension obligations to ISAGEN's current and former employees.

At December 31, 2015, this independent trust amounted to \$35,420 million and may reach a maximum equal to the amount of the actuarial calculation made as at December 31 of each year. In 2015, \$5,077 million were contributed to this fund.

# Note 6: Financial Service Providers

Company borrowings from credit establishments, financial institutions or outstanding bond deposits.

Financial liabilities increased 10.09% from \$ 3,395,686 million in 2014 to \$ 3,738,224 million in 2015.

	Securities	%
Short term		
External	111.630	15
Long term		
External	612.025	85
Total	723.655	100

Values expressed in millions of COP.

As is customary in this type of operation, the Company acquired a series of mainly financial and environmental commitments. At the end of 2015 and 2014, the Company had fulfilled all these commitments.

The net value between other revenue and other financial expenses, such as the revaluation of the investment portfolio at market prices, interests on accounts receivable, interests on borrowings and exchange rate difference, was taken into consideration. The increase in interest and fees is significant compared to the previous year because, in 2014, the interests associated with the debt directly attributable to the construction of the Sogamoso Hydroelectric Power Plant, which started up commercial operations on December 20, 2014, were capitalized. The following table shows the distribution of value for the financial entities:

	2013	2014	2015
Interest and commission	46,613	33,487	375,406
Exchange rate difference	8,502	47,088	66,883
Financial service provider total	55,115	80,575	442,289

Values expressed in millions of COP.

# Note 7: Suppliers of goods and services

Payments corresponding to security, supplies, equipment leasing, fees for financial, legal and administrative advice and the corporate insurance program.

	2013	2014	2015
Insurance, security and other services	41,895	41,266	48,510
General and other	72,951	78,500	93,076
Suppliers of goods and services	114,846	119,766	141,586

Values expressed in millions of COP.

Different insurance policies have been acquired to cover the risk of material and financial damage, total losses due to damage and theft, civil liability, house fire; the coverage of risks related to the construction and assembly of the equipment associated with the projects. The Company has sufficient insurance policies to protect its assets.

### Note 8: Community

In 2015, ISAGEN made transfers under Law 99 to regional environmental authorities and municipalities in its areas of influence, made environmental management plans for the development of social and biophysical investment programs, focused on community training and involvement in the areas of influence of its power plants and projects, and for the environmental improvement of the tributary basins that drain into its reservoirs.

The data associated with the social and environmental management carried out in the communities of the areas of influence of the projects under construction and study are not provided in this note because they are accounted for as an investment and are not part of the Company's statement of income.

	2013	2014	2015
Law 99 contributions	38,020	39,732	50,185
Environmental Management Plan - biophysical component	11,860	12,661	25,725
Social investment	7,568	7,693	10,570
Environmental Management Plan - social component	939	1,467	3,988
Biophysical investment	2,128	2,054	3,254
Other costs- prevention and service	0	119	95
Total communities in the area of influence	60,515	63,726	93,817

### Note 9: Reinvestment

This refers to the value maintained by the Company to be able to carry on with its operations. It includes entries for the replacement and maintenance of the production capacity of the power plants, the deferred income tax associated with the reversions of the differences between the tax values and the book values of assets and liabilities, as well as the profits generated in 2015 that were not distributed that same year.

Depreciation increased due to the start-up of the Sogamoso Hydroelectric Power Plant, and the deferred income tax was affected due to the use of additional shifts, thus generating a greater tax expenditure.

	2013	2014	2015
Statutory reserves	271,986	216,699	252,625
Depreciation and amortization	150,523	157,182	241,274
Deferred income tax	14,590	44,990	115,753
CREE surcharge	0	0	-11,616
Maintenance and repair	39,035	46,714	65,893
Re-investment total	476,134	465,585	663,929

Values expressed in millions of COP.



# FINANCIAL STATEMENTS

## STATEMENTS OF FINANCIAL POSITION

#### As at december 31, 2015, 2014 and 2013

(Amounts expressed in million Colombian pesos)

Assets	Notes	2015	2014	2013	Liabilities and equity	Notes	2015	2014	2013
NON-CURRENT ASSETS					EQUITY				
Property, plant and equipment	6	7.268.038	7.269.154	6.474.605	Capital	13	133.578	68.152	68.152
Intangible assets	7	73.535	54.841	50.543	Reserves	14	1.697.050	1.807.208	1.590.509
Loans and accounts receivable	8	43.322	19.576	14.322	Capital surplus		49.344	49.344	49.344
Investments	11	84	84	84	Retained earnings		1.284.227	1.362.849	1.402.940
Other assets	9	909	909	1.307	Total comprehensive income (loss) for the year		296.100	357.961	393.875
TOTAL NON-CURRENT ASSETS		7.385.888	7.344.564	6.540.861	TOTAL EQUITY		3.460.299	3.645.514	3.504.820
CURRENT ASSETS									
Inventories	10	97.705	109.847	92.356	NON-CURRENT LIABILITIES				
Loans and accounts receivable	8	475.313	304.690	270.595	Financing operations	15	3.427.738	3.299.149	2.616.413
Other assets	9	43.534	37.539	18.052	Deferred income tax	16	683.425	568.332	523.205
Investments	11	1.822	84.522	20.538	Provisions	17	103.064	96.037	86.950
Cash	12 _	364.513	244.301	229.155	Accounts payable	19 _	13.940	10.101	64.876
TOTAL CURRENT ASSETS		982.887	780.899	630.696	TOTAL NON-CURRENT LIABILITIES		4.228.167	3.973.619	3.291.444
					CURRENT LIABILITIES				
					Accounts payable	19	298.148	309.484	140.224
					Financing operations	15	310.486	96.537	70.535
					Taxes, contributions and rates	18	16.773	23.040	50.140
					Labor liabilities		12.230	10.057	9.701
					Provisions	17	13.879	38.080	61.174
					Other liabilities	20	28.793	29.132	43.519

The accompanying notes form an integral part of the financial statements.

**TOTAL ASSETS** 

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8.125.463

8.368.775

Luis Fernando Rico Pinzón CEO

7.171.557

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**TOTAL LIABILITIES** 

TOTAL CURRENT LIABILITIES

**TOTAL LIABILITIES AND EQUITY** 

**Elvia Luz Restrepo Saldarriaga** Accountant Professional Card No. 37982-T

ORIGINAL DOCUMENT SIGNED

680.309

4.908.476

8.368.775

Jorge Enrique Múnera Durango Statutory Auditor Professional Card No. 25295-T Designated by Deloitte & Touche Ltda. (See enclosed report)

506.330

4.479.949

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375.293

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7.171.557

# STATEMENTS OF INCOME FOR THE PERIOD AND OTHER COMPREHENSIVE INCOME

## For the years ended december 31, 2015 and 2014

(Amounts expressed in million colombian pesos)

	Notes	2015	2014
Profit on ordinary activity	21	2,844,022	2,277,246
Sales and operation costs	22	(1,752,593)	(1,566,370)
GROSS PROFIT		1,091,429	710,876
Other income	23	26,984	12,212
Administrative expenses	24	(153,535)	(118,601)
Other expenses	25	(31,974)	(19,349)
Financial income	26	76,845	27,894
Financial expenses	27	(514,964)	(104,560)
PROFIT BEFORE TAXES		494,785	508,472
TAX INCOME			
Current	17	(81,651)	(105,065)
Deferred	16 Y 31	(115,753)	(44,990)
		(197,404)	(150,055)
NET PROFIT		297,381	358,417
BASIS AND DILUTED EARNINGS PER SHARE (*)	28	109,09	131,48
OTHER COMPREHENSIVE INCOME			
ITEMS THAT WILL NOT BE RECLASSIFIED INTO GAINS AND LOSSES:			
Actuarial losses from defined benefit plans.	31	(1,941)	(319)
Income tax related to components of other comprehensive income	16 Y 31	660	(137)
Other comprehensive income for the year after tax		(1,281)	(456)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		296,100	357,961

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CEO

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Jorge Enrique Múnera Durango Statutory Auditor Professional Card No. 25295-T Designated by Deloitte & Touche Ltda. (See enclosed report)

(\*) Figure expressed in colombian pesos

The accompanying notes form an integral part of the financial statements.

# STATEMENTS OF CASH FLOWS

# For the years ended december 31, 2015 and 2014

(Amounts expressed in million Colombian pesos)

	Notes	2015	2014
CASH FLOWS GENERATED BY OPERATIONS OF THE YEAR:			
COMPREHENSIVE INCOME FOR THE YEAR		297,381	358,417
PLUS (MINUS) EXPENSES (INCOME) THAT DID NOT AFFECT THE WORKING CAPITAL:			
Depreciation	6	237,728	153,668
Amortization of other assets	7	3,546	3,500
Impairment of inventories	10	4,715	567
Deferred tax	16	115,753	44,990
Impairment (recovery) of accounts receivable	8	7,100	(1,903)
Loss on sale or withdrawal of property, plant and equipment, inventories and other assets		4,040	582
Amortized cost of debt		61,550	24,973
Exchange difference in financial obligations		74,828	44,408
	-	806,641	629,202
CHANGES IN ASSETS AND LIABILITIES:			
Loans and accounts receivable		(201,468)	(37,446)
Inventories		42,764	(4,750)
Other assets		(5,994)	(19,089)
Accounts payable		313,184	356,184
Labor liabilities		(282)	1,847
Taxes, liens and rates		(6,267)	(27,100)
Provisions		65,610	64,156
Other liabilities		(339)	(14,387)
CASH PROVIDED BY OPERATION ACTIVITIES	-	1,013,849	948,617

# STATEMENTS OF CASH FLOWS

## For the years ended december 31, 2015 and 2014

(Amounts expressed in million Colombian pesos)

	Notas	2015	2014
Interest paid		(320,681)	(241,696)
Income tax paid		(82,271)	(79,973)
NET CASH PROVIDED BY OPERATION ACTIVITIES	-	610,897	626,948
CASH FLOWS FROM INVESTMENT ACTIVITIES:	-		
Acquisition of property, plant and equipment		(296,247)	(964,997)
Increase in other assets		(1,982)	(1,264)
NET CASH USED IN INVESTMENT ACTIVITIES	-	(298,229)	(966,261)
CASH FLOWS FROM FINANCING ACTIVITIES:	-		
Increase in financing operations		259,330	673,525
Payment of financing operations		(53,171)	(37,815)
Cash dividends		(481,315)	(217,267)
NET CASH PROVIDED BY FINANCING ACTIVITIES	-	(275,156)	418,443
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	-	37,512	79,130
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE YEAR		328,823	249,693
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	=	366,335	328,823
Cash and cash equivalents at year-end comprise:			
Cash		364,513	244,301
Temporary investments		1,822	84,522
	-	366,335	328,823

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CEO

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The accompanying notes form an integral part of the financial statements.

# STATEMENT OF STOCKHOLDER'S EQUITY

## For the years ended december 31, 2015 and 2014

(Amounts expressed in million Colombian pesos)

	Share Capital	Capital Surplus	Reserves	Retained Earnings	Actuarial Gain (Loss)	Total
Balances as at December 31, 2013	68,152	49,344	1,590,509	1,780,394	16,421	3,504,820
Appropriations made by the General Meeting of Shareholders	-	-	239,133	(239,133)	-	-
Actuarial losses	-	-	-	-	(456)	(456)
Cash dividends (\$79.7* per share)	-	-	(22,434)	(194,833)	-	(217,267)
Net profit	-	-	-	358,417	-	358,417
Balances as at December 31, 2014	68,152	49,344	1,807,208	1,704,845	15,965	3,645,514
Appropriations made by the General Meeting of Shareholders	65,426	-	21,307	(86,733)	-	-
Cash dividends (\$176.56* per share)	-	-	(131,465)	(349,850)	-	(481,315)
Actuarial losses	-	-	-	-	(1,281)	(1,281)
Net profit				297,381		297,381
Balances as at December 31, 2015	133,578	49,344	1,697,050	1,565,643	14,684	3,460,299
Notes:	13		14		31	

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CEO

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The accompanying notes form an integral part of the financial statements.

<sup>\*</sup> Figure expressed in Colombian pesos



# GENERAL SHAREHOLDERS' MEETING

### 1. General information

ISAGEN S.A. E.S.P. (hereinafter also referred to as the Company) is a mixed public services company, incorporated as a stock corporation, as set forth in public deed No. 230 from the Single Notary Office of Sabaneta, Department of Antioquia, on April 4, 1995, for an undefined period of duration. Its main offices are located at Carrera 30 No. 10 C – 280 in the Municipality of Medellín, Department of Antioquia, Colombia.

ISAGEN S.A. E.S.P.' main corporate purpose is the generation and marketing of electric power, marketing of natural gas through networks, and the marketing of coal, steam and other energy sources for industrial use.

In furtherance of its corporate purpose, the Company has the following power generation plants:

- o San Carlos Hydroelectric
- Jaguas Hydroelectric
- Calderas Hydroelectric
- Miel I Hydroelectric
- Amoyá Hydroelectric
- Termocentro combined cycle thermal power plant
- Sogamoso Hydroelectric

The Sogamoso Hydroelectric Power Plant started full commercial operation on December 20, 2014, after a period of construction that began in 2009.

These financial statements were approved by the Board of Directors as evidenced in the minutes of the meeting held on February 26, 2016.

# 2. Summary of main accounting policies

The main accounting policies applied to prepare the financial statements are explained below. Such policies have been uniformly applied in all the years presented, unless otherwise noted.

#### 2.1 Basis for preparation

ISAGEN S.A. E.S.P. financial statements have been prepared in accordance with the International Financial Reporting Standard (IFRS) and its corresponding interpretations (IFRIC) issued by the International Accounting Standards Board (IASB). Said financial statements are harmonized with the generally accepted accounting principles in Colombia established under Decree 2784 of 2012 and subsequent amendments thereto approved by the Nation's General Accounting Office under Resolution 743 of 2013. In its article 3°, this same resolution addresses those companies that, in their financial statements from December 31, 2014, had an express and unreserved statement implementing the new regulatory framework from the Decree 2784 of 2012 (IFRS) not requiring preparation of a new statement of financial position for the transition period. ISAGEN makes use of this possibility.

The financial statements have been prepared based on historic cost, with the exception of certain financial instruments that are measured according to amortized cost or fair value, as explained in the accounting policies included hereunder. In general, historic cost is based on the fair value of transactions. Fair value is the price to be received for selling an asset or paid for transferring a liability through an ordered transaction among market participants on the date of its estimate.

Financial statement preparation in accordance with IFRS requires the use of certain critical accounting estimates. And, also requires management to use its judgment in the process of accounting policy application.

The areas involving a higher degree of judgment or complexity or the areas in which assumptions and estimates are significant in the financial statements are described in Note 4 – Estimates and relevant accounting criteria.

#### Transition to Financial Reporting Standards (IFRS)

Financial statements as of December 31, 2015, are the first annual financial statements prepared in accordance with Financial Reporting Standards (IFRS) adopted in Colombia by way of Decree 2784 of 2012, in harmony with the International Financial Reporting Standards (IFRS). Notwithstanding the above, the Company has been applying and publishing its financial statements according to IFRS since the year 2011.

Consequently, and according to legal authorization, the figures appearing in such financial statements correspond to January 1, 2014, and to financial information under IFRS to December 31, 2013.

Equity conciliations for 2014 and 2015 are presented below together with the income statement for 2014, as required by the regulatory authority:

#### **Equity Conciliation**

	Notes	2014	2013
Equity according to Colombian accounting principles		4.248.300	4.029.450
Plus:			
Attributed cost property, plant and equipment	1	698.254	698.254
Equity tax	2	121.286	142.746
Adjustment of debt amortized cost	3	29.316	29.316
Other comprehensive income	4	15.966	16.421
Adjustment of intangibles cost	5	6.790	6.790
Other minor adjustments		663	4.643
Minus:			
Revaluation of property, plant and equipment	1	792.618	793.084
Income differences	6	396.412	318.244
Deferred tax difference	7	129.614	155.055
Long-term labor benefits and actuarial calculation	8	80.270	80.270
Withdrawal of studies and projects in research stage	9	41.955	41.955
Withdrawal of fixed assets with no future benefits	9	30.597	30.597
Adjustment of employee and shareholder debt amortized cost	10	3.595	3.595
Total equity IFRS		3.645.514	3.504.820

#### Income conciliation to December 2014

	Notes	
Local income		436.583
Depreciation and amortization	1	(38.602)
Deferred tax difference	7	(3.160)
Diferencia en cambio costo amortizado	3	(43.680)
Amortized cost change difference	3	10.965
Net amortized cost of financial assets and liabilities	3	(3.271)
Other minor		(418)
Total comprehensive income IFRS		358.417
Actuarial gains (losses) from defined benefit plans	4	(319)
Capital gains taxes associated to components of other comprehensive income	4	(137)
Total comprehensive income		357.961
comprehensive income	4	, ,

#### **Explanatory Notes**

- 1. The Company revaluated its main assets on the date of its opening balance and elected such revaluation as the cost attributed to its properties, plant and equipment on the date of transition as of January 1, 2010, eliminating accumulated revaluations according to local standards and adjusting the useful life of its assets on the basis of technical criteria. As a result of this decision, the expense for depreciation carried to the comprehensive income statement under IFRS was higher than the local expense by \$38.602.
- 2. Pursuant to Colombian standards, equity taxes may be recognized as a debit under the equity revaluation account (accumulated equity inflation adjustments). The Company chose this option on account of local effects, whereas under IFRS it was directly imputed to the income statement. Albeit true that this difference, as concerns equity, disappeared in 2013, it did affect the profits subject to appropriation in 2010, reflected under the item "Income Differences".

- 3. Corresponding to the revaluation of financial liabilities under amortized cost. Under this method, the obligation is recognized according to the present value of future flows associated with the debt (capital, interests, commissions, premiums, guarantees, etc.) discounted at the effective rate of the credit (IRR). This gives rise to differences in financial expenses recognized under local standards and estimated at the nominal rate of the credit and other expenses accrued to the extent the same are generated, as compared with distribution throughout the entire life of the credit of expenses associated therewith included in the effective rate, including, in addition to interests per se, amortization of bond premiums in the amount of \$ 1.577 and insurance premiums of the OPIC credit for \$1.527.
- 4. The item other comprehensive income fundamentally corresponds to non realized earnings and losses expected to be realized only in the long term. Thus, the standard contemplates their reporting during said period of time under an independent item referred to as "other comprehensive income" different to the income for the year. At ISAGEN the only accumulated effect under Other Comprehensive Income is actuarial earnings and losses resulting from deviations in actuarial assumptions used by actuaries to calculate long-term pension and post-employment benefits.
- 5. Adjustment of the accounting value of intangible assets, mainly by eliminating adjustments for inflation remaining to January 1, 2010, generated during the time mandatory recognition thereof was applicable in Colombia. Additionally, technical useful lives were assigned and amortization of same was calculated on this basis.
- 6. ISAGEN has applied IFRS since January 1, 2010, but continued to distribute profits according to income under the local standard, as should be, which generated this accumulation of higher values distributed as dividends or reserves between 2010 and 2013.
- 7. Under the local standard, deferred tax was calculated only on the differences among the items affecting the determination of accounting and tax income (differences in income accounts), whereas under IFRS deferred tax is calculated on practically all differences between accounting assets and liabilities and tax assets and liabilities (differences in balance accounts).

In the local standard, deferred tax was practically generated only by the differences between accounting and tax useful lives that derived a higher tax depreciation cost than the accounting depreciation cost. With IFRS the main difference, in addition to the above, is generated by the higher value of assets recognized under the opening balance which will generate in the future a higher cost of accounting depreciation as compared with that reported for tax effects, where a similar update of asset tax costs was not performed.

- 8. Recognition of all retiree benefits, other than pensions, such as education subsidies and health plans, which report is not mandatory under local standards. Additionally, by way of actuarial calculations long-term benefits were also recognized using the methodology of projected credit unit.
- 9. Pursuant to the policy defined for managing fixed assets, any assets not meeting the conditions for reporting under IFRS were excluded, mainly due to the difficulty of demonstrating future generation of economic benefits. Costs associated with studies and projects in research stage appearing as assets under local standards were also eliminated, however IFRS require the same be recognized in income.
- 10. Corresponding to the incorporation of the financial cost from interest rate benefits for employee loans between 0% and 7%, rates below market rates measured at amortized cost. This calculation does not affect the quota or the time agreed for payment of the loan.

#### 2.2 Accrual Basis of Accounting

The Company prepares its financial statements, with the exception of cash flow statements, applying the accrual basis of accounting.

#### 2.3 Relative importance and materiality

Presentation of economic facts is made according to their relative importance and materiality.

For purposes of disclosure, a transaction, event or operation is material when due to its size or nature, knowledge or the lack thereof depending on surrounding circumstances, has an influence on decisions to be made or evaluations made by users of accounting information.

To prepare and present financial statements, size materiality was determined in relation to, among others, total assets, current and non current assets, total liabilities, current and non current liabilities, equity or period results, whichever the case. In general terms, any item exceeding 5% with respect to a determined total of the above is deemed as material.

# 2.4 Changes in accounting policies and in information to be disclosed

# 2.4.1 New and modified standards and interpretations of mandatory compliance in the rolling year

During the rolling year a series of amendments to IFRS have been generated which compliance is mandatory for the accounting periods beginning on or after January 1, 2015.

## Modification of IAS 19 Defined Benefits Plans: Employee contributions.

Before the amendment, employee discretional contributions to defined benefit plans are accounted as a reduction of the cost of the service when contributions are paid to plans, and employee contributions specified in the defined benefits plan are defined as a reduction of service cost when the service is rendered. The amendment requires accounting employee contributions as follows:

- Account employee discretional contributions to the defined benefits plan as a reduction of the service cost based on plan payments.
- Account the contributions established in defined benefits plans as a reduction in the cost of the service only if such contribution is associated to the services. Specifically, when the amount of such contribution depends on the number of years of service, the reduction of the cost of the service is made by allotting the contributions to the service periods in the same manner as benefit attribution. On the other hand, when such contributions are determined based on a fixed percentage of the salary regardless of the years of service) recognizes the reduction of the cost of the service during the period in which the services referred to were rendered.

In ISAGEN's case, employee contributions to defined benefits plans have not been established.

#### 2.4.2 Standards issued not yet effectively applied

Standards issued but not yet mandatory are listed below. ISAGEN will adopt the same on the date established for their enforcement.

#### IFRS 9 - Financial Instruments

IFRS 9 issued in November 2009 introduced new measuring and classification requirements of financial assets. This standard was modified in October 2010 to include requirements for measurement, classification and derecognition of financial liabilities and in November 2013 to include new requirements for general accounting of hedges. Another revised version of IFRS 9 was issued in July 2014 mainly to include a) requirements for financial asset deterioration b) limited amendments to measurement and classification by introducing the measuring category "At fair value through other comprehensive income", for certain simple debt instruments.

#### Main requirements under IFRS 9:

For all financial assets recognized within the scope of IAS 39 "Financial Instruments: Recognition and Measurement", their subsequent measurement is required at amortized cost or at fair value. Specifically, investments in debt instruments maintained in a business model which purpose is receiving contractual cash flows, and contractual cash flows that are solely payments of principal and interests on outstanding capital generally measured at amortized cost at the end of the period and subsequent periods. Financial instruments maintained within a business model which purpose is to obtain contractual cash flows as well as those associated with the sales of financial assets and having contractual terms that on specific dates provide cash flows that are solely payment of principal and interests on outstanding capital, generally measured at fair value through other comprehensive income. All other debt and equity investment instruments are measured at fair value at the end of the period and subsequent periods. Additionally, under IFRS 9, an entity may make an irrevocable decision to present subsequent changes in the fair value of an equity instrument (not maintained for negotiation purposes) in other comprehensive income and only recognize income from dividends under income.

In respect of financial obligations measurement designated at fair value through profit and loss, IFRS 9 requires that value of the change in the fair value of the financial instrument attributed to changes in liability credit risk, be presented under other comprehensive income, unless said recognition may give rise to an accounting distortion of income. Changes in fair value attributed to the credit risk of the financial obligation are not subsequently reclassified in income. Under IAS 39, the total amount of change in the fair value of the financial obligation designated at fair value through profit and loss is presented in revenue.

With respect to financial asset impairment, the standard requires a model of future credit losses as opposed to the model of credit losses incurred under IAS 39. The model of expected credit losses and the changes in such losses on each reporting date to reflect changes in credit risks since the initial recognition. In other words, it is no longer necessary for a credit default to occur before loss recognition.

The new general hedge accounting keeps the three types of mechanisms for hedge accounting available under IAS 39. Under IFRS 9, greater flexibility was introduced to the types of transactions eligible for hedge accounting, specifically, increasing the types of instruments classified as hedging instruments and the types of risk components of non financial items eligible for hedge accounting. Additionally, the effectiveness test has been revised and replaced by the principle of "economic relationship". The retroactive evaluation of hedge effectiveness is no longer required. Improvements were included to the requirements of disclosure of an entity's risk management activities.

Company management does not foresee a significant impact on its financial statements when application of this IFRS standard begins, it is expected to become mandatory as of January 1, 2018.

#### IFRS 15 Revenue from Contracts with Customers

In May 2014, this standard was issued to establish a single model to be used by entities for accounting revenue derived from contracts with clients. IFRS 15 will replace the current guidelines to recognize income included under IAS 18 "Revenue", IAS 11 "Construction Contracts" and related interpretations when becoming effective.

The basic principle of IFRS 15 is that an entity will recognize income from regular activities in a manner which represents the transfer of goods or services committed to clients in exchange for a price reflecting the consideration at which the entity expects to have the right to change such goods or services. An entity recognizes revenue from regular activities in

accordance with this basic principle by way of applying the following stages:

Stage 1: Identify the contract (or contracts) with the client

Stage 2: Identify performance obligations in the contract

Stage 3: Determine the price of the transaction

**Etapa4:** Allot the price of the transaction among contract performance

obligations

**Stage 5:** Recognize revenue from regular activities when (or to the extent

of) the entity satisfies the performance obligation

Under IFRS 15, an entity will recognize revenue when the obligation is satisfied, for example, when the "control" of the goods or assets underlying the performance of the obligation in particular are transferred to the client. More specific guidelines have been added to the standard for specific scenario management. Additionally, more disclosure is required.

Company management does not expect significant changes in revenue recognition when applying this standard foreseen for January 1, 2018.

# Amendment of IFRS 11 Accounting of interest acquisition in joint arrangements

The amendments to IFRS 11 provide guidelines for accounting the acquisition of joint arrangements that comprise a business as defined in IFRS 3 "Business combinations". Specifically, the amendment establishes that the relevant principle for accounting business combinations according to IFRS 3 and other standards (i.e. IAS 36 Impairment of assets resulting from the impairment test of a cash generating unit to which the mercantile credit generated in a business combination was assigned) may be applied. The same requirements may be applied to the creation of joint arrangements only and only if an existing business is contributed to the joint arrangement by one of the parties participating in the joint arrangement.

It is required that the joint operator disclose relevant information required under IFRS 3 and other standards for business combinations.

Amendments to IFRS 11 prospectively applied for periods beginning as of January 1, 2016. Company management is not considering early application and does not foresee any significant impacts from the implementation thereof.

#### Amendment of IAS 1: Disclosure Initiative

The amendments to IAS 1 provide certain guidelines on how to apply the concept of materiality in practice.

Amendments to IAS 1 are effective for annual periods beginning on or after January 1, 2016

Such amendments will not have a significant impact on ISAGEN.

## Amendments to IAS 16 and IAS 38 Clarification of acceptable methods of depreciation and amortization

The amendments to IAS 16 prohibit entities from using a depreciation method based on income for the items property, plant and equipment. IAS 38 amendments introduce a refutable assumption that income is not an appropriate basis for amortization of an intangible asset. This assumption may only be refuted in the following circumstances:

- When the intangible asset is expressed as a measure of income; or
- When demonstrating that the income or consumption of the economic benefits of the intangible asset are highly correlated.

Amendments are applied prospectively for annual periods beginning on or after January 1, 2016. Currently, the company uses the straight line method for depreciation and amortization of property, plant and equipment and of intangible assets, respectively; however, in neither case in function of income, therefore such amendments will have no impact for the Company.

## Amendments to IAS 16 and IAS 41 Agriculture: Bearer Plants

Amendments to IAS 16 and IAS 41 performed in June 2014 define a bearer plant and requires that biological assets that meet the definition of a bearer plant be accounted as property, plant and equipment as per IAS 16, instead of IAS 41. The resulting product of a bearer plant continues to be reported in accordance with IAS 41.

Since the Company has no biological assets, such amendments have no impact.

# Amendments to IFRS 10 and IAS 28 Sales or contribution of assets of between an investor and its associate or joint venture.

The amendments to IFRS 10 and IAS 28 refer to situations where there is a sale or contribution of assets between an investor and its associate or joint venture. The amendments specifically establish that gains or losses resulting from the loss of control of a subsidiary that does not contain a business in a transaction with an associate or joint venture accounted by the method of equity share, be recognized in the income of the parent company only to the extent of the unrelated investors' interests in the associate or joint venture. Likewise, gains or losses resulting from the remediation of investments withheld in any former subsidiary (converted into an associate or joint venture accounted by the equity method) at fair value be recognized under the income of the former parent company to the extent of the interests of the unrelated investors' interests in the new associate or joint venture.

Amendments shall apply prospectively to transactions occurring in annual periods beginning on or after January 1, 2016 Company management does not foresee significant impacts from these amendments.

# Amendments to IFRS 10, IFRS 12 and IAS 28 Investment Entities: Applying the consolidation exemption

Amendments to IFRS 10, IFRS 12 and IAS 28 clarify that the consolidation exemption from preparing consolidated financial statements is available for a parent entity that is a subsidiary of an investment entity, even if the investment entity measures all of its subsidiaries at fair value according to IFRS 10. These amendments also clarify that the requirements of an investment entity to consolidate a subsidiary that provides services related to former investment activities do not apply if the subsidiary itself is an investment entity.

Currently, these amendments have no impact on the Company.

#### Annual improvements to IFRS cycle 2012-2014

Annual improvements of IFRS cycle 2012-2014 include a series of amendments to several IFRS, presented below:

Amendments to IFRS 5 introduce specific guidelines for an entity to reclassify an asset (or group for disposal) from held for sales to held for distribution among owners (or vice-versa). The amendments clarify that such changes should be deemed as a continuance of the original plan for disposal and, therefore the requirements established under IFRS 5 regarding changes in the sales plan are not applicable. Amendments also clarify the guidelines for accounting for when held for distribution is discontinued.

Amendments to IFRS 7 provide additional guidelines to clarify whether a service contract is continuously involved in a transfer of assets for the purpose of the disclosures required in respect of transferred assets.

Amendments to IAS 19 clarify that the rate used to discount postemployment obligations should be determined by reference to market yields at the end of the reporting period of high quality corporate bonds. The assessment of market depth for high quality corporate bonds shall be at the level of currency (for example, the same currency in which benefits will be paid). For currencies not having a deep market for such high quality corporate bonds, market yields at the end of the reporting period will be used for government bonds denominated in such currency.

Company management deems that these changes will not have significant impact on financial statements.

On the other hand, in January 2016, a series of modifications and issuance of the following standards was given:

- o IFRS 16 leases (January 13, 2016)
- O Amendment to IAS 7 Cash flow statement (January 29, 2016)
- Amendment to IAS 12 Income taxes (January 19, 2016)

Currently, the Company management is carrying out analyses of the impacts of them.

#### 2.5 Conversion of Foreign Currency

#### (a) Functional currency and presentation currency

The items included in financial statements are expressed in the currency of the primary economic environment where the entity operates (Colombian Pesos). Financial statements are presented in "Colombian Pesos", that are the functional currency of the Company and the presentation currency.

#### (b) Transactions and balances

Transactions in foreign currency are translated into the functional currency, applying the exchange rates in effect on the date of the transaction or valuation where items are reexpressed. Gains or losses in exchange differences arising from the payment of such transactions and from exchange rate conversion at year closing of monetary assets and liabilities in foreign currency, are recognized in the statement of income for the period and in other comprehensive income.

Exchange gains related to loans, cash and cash equivalents are presented in the income statement for the period and in other comprehensive income

under the item "financial income" whereas the losses are presented under the item "financial expenses".

#### 2.6 Property, plant and equipment

Property, plant and equipment are presented at their historic cost, minus subsequent depreciation and impairment losses, if any.

Historic cost includes disbursements directly attributed to the acquisition of these items. Cost also includes indebtedness costs incurred during construction stages of projects requiring substantial time before starting operation.

Properties undergoing construction for production, supply or administrative purposes are recognized at cost, minus any recognized impairment loss. Cost includes, for suitable assets, the cost of loans capitalized by the effective interest rate method. These properties are classified under the appropriate categories of properties, plant and equipment when completed and ready for their intended use.

Suitable assets are those assets requiring a substantial period of time to be ready to operate as expected by Management. For ISAGEN, the minimum period of construction or adaptation of an asset is between 6 months and 1 year, depending on the type of asset.

Expenditures that increase the useful life or the ability to use assets supported on a technical concept are capitalized. Other expenditures for maintenance and repairs are charged to costs and expenses when they are incurred; excluding major maintenance, which are recorded as a separate component of the asset.

Depreciation of these assets begins when the assets are ready for their intended use.

Asset depreciation, save for land that is not depreciated, is calculated by the straight line method.

The depreciable basis of an asset which includes its acquisition cost minus its residual value and minus any losses for impairment, is recognized in the income statement of the period and in other comprehensive income during its estimated useful life.

Asset residual values and useful life are revised and adjusted, when necessary, o the date of each statement of financial position.

The book value of an asset is written down immediately to its recoverable value, if the book value is higher than the recoverable value estimate.

An element of property, plant and equipment is derecognized due to its disposal or when no future economic benefits are expected from continuing asset use.

Gains or losses from asset sales correspond to the difference between the income received from the transaction and the book value of the asset. The same are included in the income statement and other comprehensive income.

Properties, plant and equipment subject to financial leases are depreciated in the same way as own assets. If there is reasonable certainty of obtaining ownership at the end of the lease period, the asset is depreciated throughout its expected useful life, otherwise it is depreciated at the end of the lease period, whichever is higher.

#### 2.7 Intangible Assets

Intangible assets acquired separately are initially measured at their cost. Following the initial recognition, the intangible assets are counted at their cost minus any accumulated amortization and any accumulated loss for the impairment of the value that exist.

#### (a) Licenses

Licenses have a defined useful life and are recognized at cost minus accumulated depreciation. Amortization is estimated using the straight line method to report the cost in income at the end of the estimated useful life.

#### (b) Software

Costs associated with software maintenance are recognized as expense when incurred. Amortization is calculated using the straight line method to assign cost to income at the end of the estimated useful life.

The estimated useful life and the amortization method of intangibles are revised at the end of each period.

#### (c) Easements

Easements are acquired rights for the development of productive projects. These assets are considered as finite life assets and are amortized during the time of the duration of the associated project by the straight line method.

#### (d) Research and Development Expenses

The amounts incurred in research activities are recognized as expenses during the period in which they were incurred.

An intangible asset internally generated (derived from the development phase of an internal project) is recognized as asset if, and only if, all the following is evidenced:

- Technical feasibility of completing the intangible asset in a manner such that it will be ready for its intended use or sales.
- The intention to complete an immaterial asset for use or sales.
- The capacity to use or sell the intangible asset.
- The manner in which the intangible asset will generate probable future economic benefits.
- Availability of appropriate technical, financial and other resources to complete development and to use or sell the intangible asset.
- Capacity to measure in reliable manner the disbursement attributable to the intangible asset during its development.

The amount initially recognized at internal level generated by intangible assets is the sum of expenses incurred as of the date the element complies the above-mentioned recognition criteria. Where an intangible asset internally generated is not recognized, development expenses are recognized in income in the period when incurred.

After the initial recognition, assets internally generated are reported at cost minus accumulated amortization and impairment losses, on the same conditions as intangible assets acquired separately.

An intangible asset will be derecognized upon disposal or when future economic benefits are not expected from its use or disposal. Gains or losses derived from the disposal of an un intangible asset, are measured as the difference between asset net income and book value and recognized in the income statement.

When beginning development of an intangible asset associated to a power generation project, the costs are accumulated as ongoing construction.

#### 2.8 Leases

ISAGEN as lessee classifies leases as financial leases provided that the terms of the lease significantly transfer all risks and benefits of the property to the lessee. Other leases are classified as operative leases.

Assets under financial lease are only reported as assets at their fair value at the beginning of the lease agreement or, if lower, at the present value of minimum payments. The present obligation of lease payments and the purchase option are recognized in the statement of financial position as a financial lease obligation.

Lease payments are distributed between financial expenses and reduction of the obligation. Financial expenses are recognized immediately in income, unless they are directly attributable to suitable assets, in which case they are capitalized, according to the general policy on loan costs.

Operative lease payments are reported as expenses in lineal manner throughout the term of the lease, unless another systematic basis is more representative of the temporary pattern of economic benefits consumption of the leased asset.

#### 2.9 Impairment of Non Financial Assets

Assets subject to depreciation or amortization are tested for impairment when events or circumstances occur that indicate that the book value of same may not be recovered.

Impairment losses correspond to the amount in which the book value of the asset exceeds its recoverable value. Asset recoverable value is the higher value between the net amount obtained from its sales or its use value. For purposes of impairment assessment, assets are grouped at the smallest levels in which they generate identifiable cash flows (cash generating units). Balances in non financial asset books subject to derecognition for impairment are revised on each date of reporting to verify possible impairment reversals.

Where an impairment loss is later reversed, the book value of the asset (or of a cash generating unit) is increased to the revised recoverable amount estimate, but in a manner in which the increased book value will not exceed the book value to be determined if no impairment loss had been recognized for the asset (or the cash generating unit) in previous periods. Reversal of an impairment loss is immediately recognized in income.

The cash generating unit is associated with power generation.

#### 2.10 Financial Assets

#### 2.10.1 Classification

The Company classifies its financial assets into the following categories: Financial assets at fair value through profit and loss, loans and accounts receivable, and available for sales.

The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets on the date of initial recognition.

#### (a) Financial assets at fair value through profit and loss

Financial assets at fair value through profit and loss are assets held for negotiation. A financial asset is classified in this category if acquired mainly for the purpose of sales in the short term.

#### (b) Loans and accounts receivable

Loans and accounts receivable are non derivative financial assets that give the right to fixed or determined payments and not quoted in an active market. They are included under current assets, with the exception of those with maturity dates exceeding 112 months as of the date of the statement of financial position. The latter are classified as non current assets.

#### (c) Financial assets available for sales

Financial assets available for sales are non derivative financial assets designated in this category or that do not classify to be designated in other categories. These assets are shown as non current assets unless management has the express intention of selling the asset within 12 months after the date of the statement of financial position, in which case the assets are classified as assets held for sales.

#### 2.10.2 Recognition and measurement

Regular sales and purchases of financial assets are recognized on the date of liquidation, date on which the sales or purchase of the asset is effected. Investments are initially recognized at fair value plus the cost of transaction in the case of financial assets not reported a fair value through profit and loss. Financial assets recognized at fair value through profit and loss are initially recognized at fair value and transaction costs are recognized as expense under the income statement for the period and in other comprehensive income.

Investments cease to be recognized when the rights to receive cash flows from investments expire or all risks and benefits derived from their ownership have been substantially transferred. Financial assets available for sales at fair value through gains or losses are later recognized at fair value. Loans and accounts receivable are recognized at their amortized cost based on the effective interest rate method.

The effective interest rate method is a mechanism to estimate the amortized cost of a debt instrument and the allocation of income from interests during the relevant period. The effective interest rate is the rate to accurately discount future cash flows (including fees and points paid or received that are an integral part of the rate, transaction costs and other premiums or discounts) throughout the expected useful life of the debt instrument or, if the case, a shorter period, with the accounting net value in the initial recognition.

Trade receivables are initially recognized at fair value and subsequently are valuated at amortized cost, using the effective interest method, minus impairment.

Gains and losses arising from changes in the fair value of "financial assets at fair value through profit and loss" are included in the income statement for the period and other comprehensive income under the item "other income /other expenses", in the period in which the referred changes in fair value take place.

Fair value of investments quoted in the stock market are based on the current quoted price. If the market for a financial instrument is not active (or the instrument is not quoted in the market) its fair value is established using valuation techniques. These techniques include the use of values observed in recent transactions carried out on free competition terms, reference to other instruments substantially similar, analysis of discounted cash flows and price fixing option models, extensively using market information and depositing the lowest degree of confidence possible on specific internal information of the entity.

#### 2.10.3 Financial asset impairment

On each date of the statement of financial position, evaluation is made on whether there is objective evidence on the devaluation or impairment in the value of the financial asset or a group of financial assets.

#### (a) Assets at amortized cost

A financial asset or group of financial assets is impaired only if there is objective evidence of impairment as a result of one or more events occurring after the initial recognition of the asset (an event of loss) and the event of loss, (or events), have an impact on estimated future cash flows of the financial asset or group of financial assets which may be estimated in a reliable manner.

Criteria used to determine whether there is objective evidence of a loss due to impairment are:

- O Significant financial difficulties of the issuer or obliged party.
- Breach of contract such as non payment or delay in the payment of interests or principal.
- The Company, for economic or legal reasons associated with financial difficulties of the borrower, provides the borrower a concession that otherwise would not have been considered.
- It is probable that the borrower will go bankrupt or will undergo financial clean-up.

- The disappearance of an active market for the financial asset due to financial difficulties, or
- Observable data indicate that there is a significant reduction in estimated future cash flows based on a portfolio of financial assets from the initial recognition of such assets, despite the reduction not being yet identified with individual financial assets in the portfolio, including:
  - (i) Adverse changes in the status of portfolio borrower payments, and
  - (ii) Local or national economic conditions correlated to non payment in portfolio assets.

The Company first evaluates whether individual objective evidence of impairment exists, otherwise a general or overall analysis is made to determine the impairment.

For loans and the category of accounts receivable, the amount of loss is measured as the difference between the book value of the asset and the present value of future cash flows (excluding future credit losses that have not been incurred) discounted at the original effective interest rate of the financial asset or at a reference rate if the original rate of the asset is below market rates. The book value of the asset is reduced and the size of the loss is recognized in profit and loss for the period and in other comprehensive income. If a loan or investment kept until maturity has a variable interest rate, the discount rate to valuate any impairment loss is the current effective interest determined under the contract.

If in a later period, the amount of the impairment loss is decreased and the decrease may be objectively associated with an event occurring after the impairment was recognized (for example, an improvement in debtor credit rating), the reversal of the impairment loss is recognized in profit and loss.

When an account receivable is deemed uncollectible, it is derecognized under the respective impairment account. Later recovery of previously derecognized amounts is recognized as credit in the account "recoveries" in the income statement for the period and in other comprehensive income.

#### (b) Assets at fair value

The Company evaluates at the end of each balance period, whether there is objective evidence that a financial asset or group of financial assets is impaired. For debt securities, the Company applies the criteria mentioned in the above subparagraph (a). In the event of equity investments classified as available for sales, a significant or prolonged reduction in the fair value of the security below its costs is also evidence that the assets are impaired. If such evidence exists for financial assets available for sales, the accumulated loss (measured as the difference between the acquisition cost and the current fair value, minus any impairment loss of the financial asset) it is eliminated from equity and recognized in profit and loss. If, in a later period, the fair value of a debt security classified as available for sales increases and such increase may be objectively associated with an event occurring after the impairment loss was recognized, the impairment loss is reversed through the same income statement for the period and other comprehensive income.

#### 2.11 Inventories

Inventories are reported at cost or net value of realization, whichever is lower. Cost is determined by applying the weighted average method.

#### 2.12 Cash and cash equivalents

cash and cash equivalents include available cash, bank deposits of free disposal, other short-term highly liquid investments with three month or less maturities as of the date of acquisition of the financial instrument.

#### 2.13 Non current assets held for sale

Non current assets (or groups of assets to be derecognized) are classified as held for sale when their book value is recovered mainly through a sales transaction deemed highly probable. These assets are shown at the lower

value resulting from comparing the balance in books and the fair value minus the costs to carry through the sales.

#### 2.14 Corporate capital

Common shares are classified in equity.

Incremental costs directly attributable to new share issuance or options are shown in equity as a deduction from the amount received, net of taxes.

The Company quotes its shares mainly at the Bogota Stock Exchange. Since 2011, the US SEC (Securities and Exchange Commission) authorized the negotiation of ADR's level 1 by OTC (Over The Counter), where each ADR (American Depositary Receive) gives the investor the right to 10 common shares.

#### 2.15 Reserves

Appropriations authorized by the general Stockholders' Meeting are registered as reserves, charged to profit and loss for the year to comply with legal provisions or to cover expansion plans or financing needs.

Legal provisions contemplating reserve constitution applicable to the Company are the following:

- Article 130 of the Tax Statute contemplates the appropriation of net profits equivalent to 70% of the higher value of tax depreciation over accounting depreciation, calculated on the basis on local accounting standards. This reserve may be liberated to the extent that depreciations later accounted, exceed those annually requested for tax purposes, or the assets generating the higher deducted value are sold.
- The Code of Commerce orders the Company to appropriate 10% of its annual net profits under local accounting standards as legal reserve

until the balance of this reserve is equivalent to 50% of subscribed capital. Mandatory legal reserve may not be distributed prior to Company liquidation, but may be used to absorb or reduce annual net losses. Balances of the reserve exceeding 50% of subscribed capital are freely available to shareholders.

#### 2.16 Financing operations

Loans are initially recognized at fair value, net of costs incurred in the transaction. Thereafter registered at amortized cost. Any difference between the funds received (net of transaction costs) and the value of redemption is recognized in the income statement for the period and other comprehensive income during the period of the loan, using the effective interest method.

The effective interest method is a mechanism to calculate the amortized cost of a financial liability and to allocate interest expenses during the relevant period. The effective interest rate is the rate that exactly discounts future cash payments (including all commissions and basic points paid or received that are an integral part of the effective interest rate, transactions costs and other premiums or discounts) throughout the expected useful life of the financial liability or (if applicable) a shorter period.

Fees incurred to obtain loans are recognized as transaction costs to the extent that it is probable that part or all the loan will be received.

Loans are classified in current liabilities unless there exists an unconditional right to defer payment of the obligation for more that 12 months as of the date of the balance.

The Company derecognizes financial liabilities when, and only when, the obligations are liquidated, cancelled or expire. The difference between book value of the derecognized financial liability and the consideration paid or payable is recognized in profit and loss.

#### 2.17 Loan costs

Loan costs directly attributed to the acquisition, construction or production of suitable assets, understood as assets that necessarily take a substantial period of time to be ready for use or sales, are additional to the cost of these assets, until such assets are substantially ready for use or sales.

Income from the temporary investment of specific credits pending use in suitable assets, is deducted from the costs of credits eligible for capitalization.

# 2.18 Current income tax, income tax for equity (CREE) and deferred tax

The expense for period income tax includes current income tax, income tax for equity (CREE) and deferred income tax. Deferred income tax, in the same way as others, is recognized in profit or loss for the period, with the exception of items recognized in equity or in other comprehensive income. In this case, the tax is also recognized in other comprehensive income.

The charge for current income tax and income tax for equity (CREE) is estimated based on tax laws enacted or substantially enacted prior to the date of the statement on financial position. Management periodically evaluates the position assumed in tax returns, regarding situations where tax laws are subject to interpretation. The Company, where applicable, creates provisions for the amounts expected to be paid to tax authorities.

Deferred income tax is provisioned in its entirety, by the liability method, on temporary differences arising between asset and liability tax basis and their respective values shown in financial statements. Deferred income tax is determined using tax rates (and legislation) enacted before the date of the statement on financial position and expected to be applicable when the deferred income tax is realized or the passive income tax is paid.

Active deferred income taxes are only recognized to the extent that it is probable that future economic benefits will be derived against which temporary differences may be used.

Active and passive deferred income taxes are setoff when an enforceable legal right exists to setoff current tax assets against current tax liabilities and when active and passive deferred income taxes are related with the income tax levied by the same tax authority.

#### 2.19 Labor benefits

#### (a) Retirement pensions

The Company has a pension plan with defined economic benefits that is funded through payments made to a fund managed by a trust.

Pension plans with defined economic benefits establish the amount of the benefit per the pension to be received by the employee upon retirement, that usually depends on one or more factors, such as employee age, years of service and compensation.

The liability recognized in the statement of financial position regarding pension plans with defined benefits, is the present value of the defined benefit obligation to the date of the statement of financial position, minus the fair value of the assets destined to cover such obligations, together with adjustments for non recognized actuarial gains or losses and the cost of past services. The obligation of the defined benefit is annually calculated by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting cash outflows estimated by using interest rates calculated on the basis of the yield curve of Colombian government bonds (TESB curve) denominated in real value units (RVU) with terms similar to the terms of the pension obligation until expiry.

Actuarial gains and losses arising from adjustments based on experience and changes in actuarial assumptions for post-employment benefits, are charged or credited in other comprehensive income for the period in which they arise.

The cost of past services is immediately recognized in profits and loss, unless changes in the pension plan are contingent on the employee continuing in service for a determined period of time (period to grant the right). In this case, the cost of past services is amortized using the straight line method during the period to grant the right.

#### (b) Other obligations after the labor relationship

The Company gives its retired employees medical service benefits, contributions to social security and education. The right to this benefit largely depends on the fact that the employee has worked until retirement age. The expected costs of these benefits are vested during the period of employment using a methodology similar to that of defined benefit plans. Actuarial gains and losses arise from the adjustments based on experience and changes in actuarial assumptions and charged or credited in other comprehensive income for the period in which they occur. These obligations are revaluated every year by qualified independent actuaries.

Severance pay retroactivity deemed as post-employment benefits is liquidated to workers belonging to the former labor regime Law 50 of 1990 and who did not accept the regime change (49 workers). Liquidated for the entire period worked on the basis of the last salary received and the actuarial gains or losses arising from adjustment for experience and changes in actuarial assumptions, charged or credited to other comprehensive income.

#### (c) Participation in profits and rewards

The Company recognizes a liability and an expense for worker participation in profits, on the basis of a formula that takes into account compliance with established goals. A provision is recognized charged to profit and loss for the period in which the benefit accrues.

#### (d) Long-term benefits

The Company awards its employees benefits associated with their time of service, such as the premium for seniority and five-year benefits. The expected costs of these benefits are accrued during the period of employment, using a methodology similar to that used for defined benefits plans. Actuarial gains and losses arise from the adjustments based on experience and changes in actuarial assumptions and charged or credited in other comprehensive income for the period in which they occur. These obligations are revaluated every year by qualified independent actuaries.

The seniority premium is based on the recognition of an annual monetary subsidy equivalent to one day of salary for each year of service starting in the fifth year of services to the Company.

Five-year benefits are subsidies corresponding to 0,33 of the minimum legal salary in effect for every 5 years. That is, when completing 10 years, the benefit will correspond to 0,66 and so on.

#### 2.20 Provisions

Provisions for legal claims are recognized when there is a present legal obligation or an assumed obligation resulting from past events, and it is probable that an outflow of resources will be necessary to pay this obligation and its amount has been reliably estimated.

Where similar obligations exist, the probability of requiring resource outflow for their payment is determined taking into account the type of obligations as a whole.

Provisions are measured at the fair value of disbursements expected to be required to pay for the obligation, using updating variables according to normal conditions of proceedings.

#### 2.21 Trade payables

Accounts payable are initially recognized at fair value. Long-term accounts payable are measured at amortized cost, using the effective interest method.

#### 2.22 Revenue recognition

Revenue includes the fair value of accounts received or receivable for the sales of goods and service provision throughout the normal course o operations.

Revenue is recognized when the amount may be measured in a reliable manner, it is probable that economic benefits will flow to the entity in the future and the transaction meets specific criteria for each activity, as described below. It is deemed that the amount of revenue cannot be reliably measured until all contingencies relating to the sales have been resolved. The Company bases its estimates on the information provided by the agent controlling the market, taking into account the type of client, type of transaction and the specific terms of each contract

#### (a) Energy sales

ISAGEN concentrates its marketing activities in Colombian short and long term markets, serving final industrial and wholesale clients. Eventually, it satisfies energy needs abroad through bilateral agreements.

Energy prices are agreed with clients in advance. Supply is guaranteed to clients through own generation or resorting to the Energy Exchange where generation surpluses are marketed or shortages of committed energy are covered.

Revenue derived from energy sales are recognized in the month in which energy was delivered or when it is marketed through the Energy Exchange, notwithstanding the date on which the invoice is prepared. Consequently, at the end of each month energy sales not yet invoiced are registered as estimated revenue.

#### (b) Gas sales

ISAGEN participates in the Colombian gas market selling generation surpluses from the Termocentro thermal plant. This energy is marketed to final and wholesale clients through bilateral agreements or private auctions managed by ISAGEN.

The realization of revenue is perfected by the delivery of gas to client facilities, regardless if an invoicing process takes place or not. Therefore, at the end of each month gas sales not yet invoiced as registered as estimated revenue.

The amount to be recognized is the fair value of the counterpart received. This value may be the nominal value established in accordance with legally fixed tariffs and contractual agreements, unless payment terms are agreed that are longer than those commercially accepted. In this latter case, the fair value will be determined by the present value of future payments.

#### (c) Technical service provision

Adjunct to its marketing of energy solutions, ISAGEN offers its clients engineering, maintenance and equipment supply services.

The provision of technical services is given upon satisfactory reception by client of the services provided.

Revenue is recognized in the month in which services were provided.

The amount recognized is the fair value of the counterpart received. This value may be the nominal established in accordance with legally fixed tariffs and contractual agreements, unless payment terms are agreed that are longer than those commercially accepted. In this latter case, the fair value will be determined by the present value of future payments.

#### (d) Other revenue

Revenue from interests is recognized on the basis of the proportion of time elapsed, using the effective interest rate. Where the value of an account receivable is impaired, its book value is reduced to its recoverable amount, the same as the estimated future cash flow discounting the original effective interest rate of the instrument. Revenue from interests on impaired loans or placements is recognized using the original effective interest rate of the instrument.

Financial revenue mainly includes interest on debtor balances, commissions, interests on bank deposits and profits from the valuation of investments, with the exception of those classified as available for sale.

Interests are recognized as revenue at the time the legal right for collection arises. In the event of clients that have been subject to impairment recognition, accrual of interests is suspended and revenue will only be recognized when payment is effectively received.

Interests on financial deposits are recognized as revenue when confirmation is received from the financial entity on its credit to the account.

Revenue from portfolio valuation are recognized each month using the process of valuation at market prices.

#### 2.23 Cost and Expense Recognition

The Company recognizes costs and expenses to the extent of economic events occurring in a manner to be systematically registered in the corresponding accounting period (accrual), independently from the flow of monetary or financial resources (cash).

Under costs expenses accrued in favor of employees or third parties directly associated with the sales or provision of the services are included. In like manner, costs are included that despite not being directly associated with the sales or provision of services are an essential element thereof.

Under the first, energy purchases, fuels, personnel costs, depreciations, amortizations, among others, are included. Under the latter, asset maintenance, transmission system costs, taxes, public utilities, among others, are included. All incurred in the processes responsible for the sales or provision of services.

Other expenditures not classified to be registered as cost or investment are included under expenses.

Costs directly associated with the formation or acquisition of an asset requiring a substantial period of time before being in condition for sale or use are included as investment. Among others, personnel costs directly associated with project construction, interest costs of debt destined to finance projects and major maintenance costs that increase the useful life of assets are capitalized as ongoing constructions.

#### 2.24 Dividend distribution

Dividend distribution to Company shareholders is recognized as a liability in financial statements in the period of its approval by Company shareholders.

#### 2.25 Operation segments

An operation segment is a component of an entity:

- a) That develops business activities that provide income from normal activities and incur expenses (including income from normal activities and transaction expenses with other components of the same entity),
- **b)** Which operative results are revised in regular manner by the maximum decision making authority of the entity to decide on resources that must be allocated to a segment and evaluate performance; and
- c) In respect of which differentiated financial information is available.

The Company for financial information reporting purposes, according to IFRS 8 guidelines has a single operation segment associated with the energy business.

#### 2.26 Investments

Investments are recognized at their acquisition cost and are updated to meet the intention, ability to implement and availability of the information in

the market, through the application of methodologies that approximate their economic reality.

The Company has agreements that due to their characteristics are included under a category of joint arrangements. These are not created by way of separate vehicles as provided under IFRS, and therefore classified as joint operations.

Existing agreements establish the rights of the parties over the assets and obligations in respect of liabilities related to the agreement, and the rights to income from regular activities and the obligations regarding the expenses of the parties, describing hereunder the nature of activities subject to the agreement and the manner in which the parties intend to carry out such joint activities.

# 2.27 Limitations and/or deficiencies of operative or administrative nature

During the periods 2015 and 2014, no limitations or deficiencies of operative or administrative nature occurred which might affect the normal development of the accounting process, the consistency or reasonability of figures.

### 3. Financial Risk Management

#### 3.1 Financial risk factors

The Company manages the risks inherent to financing of activities associated with its corporate purpose, as well as those derived from the placement of liquidity surpluses and treasury operations. The Company does not perform investments, operations with derivatives or foreign exchange positions for speculative purposes.

Among the risks assessed are: market, liquidity and credit risks.

**Market risk:** risk associated with financial instruments and bank position of treasury surpluses is managed through the evaluation of macroeconomic conditions and the impact of variation in its financial statements, applying the methodology of value at risk (VaR), that allows estimating portfolio potential loss; periodically, a maximum limit of exposure is defined for VaR which is monitored.

**Credit risk:** risk associated with issuer and counterparty risk, managed in accordance with the policies for treasury surpluses, that is how the Company stimulates investments in institutions and instruments with high credit rating and limits concentration by establishing maximum investment amounts per entity, thus applying fundamental criteria of security, liquidity and profitability included in the policy

On the other hand, a methodology is applied to allocate issuer and counterparty quotas which contemplates the qualitative and quantitative analysis of entities used as intermediaries in financial instrument operations. Additionally, during 2015 and 2014, the Company performed as direct depositor, for the purpose of minimizing counterparty risks in operations involving security titles.

**Liquidity risk:** the Company maintains a policy of liquidity, according to the flow of working capital, performing payment commitments to vendors in accordance with the established policy. This process is based on the preparation of cash flows and budget, that are periodically revised allowing to determine the necessary treasury position to satisfy liquidity needs.

#### 3.2 Capital Risk Management

The Company's objectives in capital management are safeguarding its capacity to continue as an on-going enterprise, generate returns to its shareholders, benefits to other stakeholders and maintain an optimum capital structure to reduce capital costs.

To maintain or adjust the capital structure, the Company may adjust the amount of dividends pad to shareholders, return capital to shareholders, issue new shares or sell assets to reduce its debt.

Consistent with the industry, the Company monitors its capital on the basis of the leverage ratio.

This ratio is calculated dividing total capital by net debt. Net debt is total indebtedness (including current and non current debt minus available cash). Total capital is equity as shown in the statement of financial position plus net debt.

#### 3.3 Fair value estimate

Fair value is the price that would be received from the sales of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

By estimating the fair value of an asset or liability, ISAGEN takes into account the characteristics of the asset or liability if market participants would take such characteristics to determine the price of the asset or liability on the date of measurement. Fair value for purposes of valuation or

disclosure in the present financial statements are determined on this basis, with the exception of lease operations and other measurements that have any similarity with its fair value, but are not its fair value, as for example, the realizable net value of inventories or the value of use in the determination of impairment.

Furthermore, for financial information purposes, measurements made at fair value are classified in levels 1, 2 or 3 based on the degree in which the input for fair value measurement are observable and the importance of the input for fair value measurement in its entirety are described as follows:

- Level I Inputs are quoted prices (not adjusted) in active markets for identical assets or liabilities that the entity may access on the date of measurement.
- Level 2 Inputs are inputs, other than quoted prices included in Level 1 which are observable for the asset or liability, either directly or indirectly.
- O Level 3 Inputs are unobservable inputs for the asset or liability.

It is assumed that book value minus impairment of accounts receivable and payable are similar to their fair value.

# 4. Estimates and relevant accounting criteria

The estimates and criteria used are continuously evaluated and are based on historic experience and other factors, including the expectation of occurrence of future events deemed reasonable in accordance with circumstances.

The Company makes estimates and assumptions regarding the future. Resulting accounting estimates, by definition, are very seldom equal to actual results. Estimates and assumptions having a significant risk of

causing a material adjustment of asset and liability balances during the following year are included below.

#### (a) Income tax and CREE tax

The Company and its legal consultants apply their professional criteria to determine the provision for income and CREE taxes. There are many transactions and calculations for which the final tax determination is uncertain during the normal course of business. The Company recognizes liabilities for situations observed in preliminary tax audits on the basis of estimates if corresponding to the payment of additional taxes. Where the final tax result of said situations is different to the amounts initially registered, the differences are imputed to current income tax and deferred asset and liability, for the period in which this event is determined.

#### (b) Financial instrument fair value

The fair value of financial instruments not traded in a market is determined by using valuation techniques allowed under FRS that are in line with those established by the financial Superintendence.

#### (c) Revenue recognition

On each date of financial statement presentation estimates of accrued revenue and costs are made on the basis of available information of energy dispatches or transactions in the secondary market, provided by market operator. Normally these estimates do not have significant variations with later actual measurements.

#### (d) Pension plan benefits and post-employment benefits

The present value of obligations arising from pension plans and postemployment benefits depend on a number of factors determined on actuarial basis, using a number of assumptions. The assumptions used to determine the net cost of pensions and post-employment benefits include the discount rate. Any change in these assumptions will have impact on the book value of the obligation arising from pension plans and postemployment benefits. The Company determines the best discount rate at the end of each year. This is the interest rate that must be applied to determine the present value of estimated future outflows of cash, foreseen as required to pay the obligations of pensions plans and post-employment benefits. Upon determining the most appropriate discount, government bond interest rates (TES B curve) are taken into account denominated in real value units (RVU) and having similar maturity terms or similar to the terms of the respective pension plan and post-employment benefits obligations.

Other key assumptions to establish pension plan and post-employment benefits obligations are based, in part, on current market conditions. In Note 16 further information in this regard is included.

#### (e) Cost recognition

Cost and expenses are registered on the basis of accrual.

On each date of financial statements presentation estimates are made of the cists accrued based on information available regarding energy purchases or transactions in the secondary market, provided by market operator. Normally these estimates do not significantly vary from later actual measurements.

# SPECIFIC NOTES

### 5. Transactions in foreign currency

Basic standards existing in Colombia allow free negotiation of foreign Exchange through Banks and other financial institutions, at free Exchange rates. Notwithstanding, the majority of foreign exchange transactions still require official approval.

Operations and balances in foreign currency are converted at existing exchange rates, certified by the Financial Superintendence of Colombia. Peso to dollar exchange rates used to prepare financial statements to December 31, 2015, 2014 and 2013 were \$3.149,47\* \$2.392,46\* and \$1.926,83\* respectively.

\* Values expressed in Colombian pesos

The foreign currency position to December 31, in US dollars and in Colombian pesos was the following:

	2015		2014		2013	
	USD	\$Col.	USD	\$Col.	USD	\$Col.
Assets						
Cash (1)	62.376	196.451	4.498	10.761	3.250	6.262
Debtors (2)	1.529	4.816	178	426	2.340	4.509
	63.905	201.267	4.676	11.187	5.590	10.771
Liabilities						
Financing Operations (3)	96.149	302.820	97.336	232.872	97.255	187.395
Acreedores y proveedores (4)	11.439	36.028	28.475	68.125	7.222	13.915
	107.588	338.848	125.811	300.997	104.477	201.310
Passive position in foreign currency	(43.683)	(137.581)	(121.135)	(289.810)	(98.887)	(190.539)

- (1) Bank account with J.P Morgan Chase Bank N.Y, Banco de Bogotá Miami, and Bank of America Miami Florida USA.
- (2) Includes the balance in dollars (USD) of the advanced payment made to a Chevron Petroleum Company for provision of fuel gas for power generation at the Termocentro plant and the advanced payment made to Consorcio Syr Whistler Vrton for the development

- of prefeasibility studies for the binational geothermal project Tufiño-Chiles-Cerro Negro in the border area between the department of Nariño in Colombia and the Province of Carchi in Ecuador.
- (3) Corresponds to loan agreements in dollars executed with the Japan Bank for International Corporation - JBIC, Bank of Tokyo-Mitsubishi UFJ Ltd., Banco Bilbao Viscaya Argentaria S.A. con with guarantee from Japanese ECA Nexi and with Banco Santander of Spain with guarantee from German ECA Hermes, to finance the Sogamoso Hydroelectric Project (see note 15).
- (4) Main vendors with which the company has trade relations in foreign currency are: Siemens Power Generation Service, Siemens Energy, Inc. and Iris Power LP During 2015 resources in USD were returned to the companies Mitsui & Co., Plant Systems and Andritz Hydro Gmbh for contractual withholdings performed.

The effects on exchange differences are recognized in income statement (Notes 26 and 27).

### 6. Properties, plant and equipment

Breakdown of the book value of properties, plant and equipment are included below:

2015	2014	2013
8.178.851	7.943.738	6.996.877
(910.813)	(674.584)	(522.272)
7.268.038	7.269.154	6.474.605
	8.178.851 (910.813)	8.178.851 7.943.738 (910.813) (674.584)

Breakdown of properties, plant and equipment net of depreciation:

	2015	2014	2013
Generation plants	6.671.641	6.662.164	2.810.333
Land (1)	167.222	166.429	178.584
Buildings	241.261	244.542	180.498
Equipment under financial leasing (2)	118.557	112.403	76.103
Equipment	16.409	21.488	27.547
Communication and computers	4.705	5.516	8.202
Transportation equipment	3.284	2.729	1.328
Assets in construction (3)	44.959	53.883	3.192.010
Total property, plant and equipment	7.268.038	7.269.154	6.474.605

In 2015 assets were acquired and construction works were begun in the amount of \$536.323 (2014 - \$989.318) and assets were written off in the amount of \$2.149 (2014 - \$1.946).

In May 2013 Hydroelectric Amoyá, located south of the department of Tolima in the municipality of Chaparral, started operating as a generating plant for \$ 453,499.

Similarly, the diversion of the Manso river, which increased energy production of Miel I hydroelectric plant in eastern Caldas, began operations in June 2013, increasing this item in \$ 117,683.

The charge to income during the year was \$237.728 (2014 - \$153.668).

(1) below is a summary of all the land owned by the Company, with breakdown of legal status and the actions carried out in accordance therewith:

Real estate registration in name of ISAGEN   Plots pending legal status definition   Possession – Interview (No registration background)   Plots materially possessed (No registration background)   Plots materially possessed (With registration background)   Plots (With registration backgro					
Real estate registration in name of ISAGEN  Plots pending legal status definition  Possession — Plots where ISAGEN purchased material possession. Safeguard areas. (No registration background)  Possession — Plots materially possessed Remediation is being pursued (With registration background).  Possession — Plots materially possessed (With registration background)  Possession — Plots materially possessed (With registration background).	Legal status	Observations	Action		Value
registration in name of ISAGEN  Plots pending legal status definition  Possession — Plots where ISAGEN purchased material processes are possession and exercises it but does not appear (No registration background)  Possession — Plots materially possessed linstruments due to the absence of registration data.  Possession — Plots materially possessed Remediation is being pursued (With registration background).  Possession — Plots materially possessed being furthered before competent authorities.  Remediation is 41 \$1.358 being pursued through ownership complaints.  Subtotal	Full Ownership				
Possession – Plots where ISAGEN purchased material processes are material possession. Safeguard areas. (No registration background) the Office of Public Instruments due to the absence of registration data.  Possession – Plots materially possessed Remediation is by ISAGEN but with false (With registration background).  Possession – Plots materially possessed (With registration data) being pursued through ownership complaints.  Subtotal 100 \$544  Plot award 100 \$544  Plot award 100 \$544  Plot award 100 \$544  Processes are being furthered before competent authorities.  Pelos materially possessed Remediation is by ISAGEN but with false being pursued through ownership complaints.	registration in name	, ,	None	861	\$165.320
Inherited rights or material possession.  Safeguard areas. (No registration background)  Possession — Plots materially possessed tradition (With registration background).  Possession — Plots materially possessed (With registration tradition background).  Possession — Plots materially possessed through ownership complaints.  Public authorities.  Remediation is being pursued through ownership complaints.  141 \$1.902					
False tradition by ISAGEN but with false being pursued (With registration tradition through background).  Subtotal by ISAGEN but with false being pursued through ownership complaints.	Inherited rights or material possession. Safeguard areas. (No registration	purchased material possession and exercises it but does not appear registered before the Office of Public Instruments due to the absence of registration	processes are being furthered before competent	100	\$544
	False tradition (With registration	by ISAGEN but with false	being pursued through ownership	41	\$1.358
Total Plots 1.002 \$167.222	Subtotal			141	\$1.902
	<b>Total Plots</b>			1.002	\$167.222

(2) Corresponding to rights under machinery and equipment leasing agreements executed with Leasing Bancolombia for the Sogamoso hydroelectric project. The agreement contemplates advanced and gradual payments during equipment construction and the beginning of the contractual amortization term as of the physical delivery of said assets.

Property, plant and equipment cost movement breakdown follows:

	Land	Generation plants	Buildings	Equipment under financial leasing	Equipment	Communications and computers	Transportation equipment	Assets in construction	Total
31/12/2013	178.584	3.293.269	198.502	76.103	38.941	17.182	2.286	3.192.010	6.996.877
Additions	233	-	-	3.651	-	256	1.216	983.962	989.318
Advances	-	-	-	-	-	-	-	(28.658)	(28.658)
Transfers	(12.388)	3.991.549	68.965	32.649	372	-	431	(4.093.431)	(11.853)
Write-offs	-	(1.767)	(135)	-	(5)	-	(39)	-	(1.946)
31/12/2014	166.429	7.283.051	267.332	112.403	39.308	17.438	3.894	53.883	7.943.738
Additions	165	6.865	162	4.470	-	1.041	813	296.725	310.241
Advances								(18.104)	(18.104)
Transfers	1.001	221.644	3.189	6.587	65	184	-	(287.545)	(54.875)
Write-offs	(373)	(1.405)	-	-	(349)	-	(22)	-	(2.149)
31/12/2015	167.222	7.510.155	270.683	123.460	39.024	18.663	4.685	44.959	8.178.851

#### Accumulated depreciation movements were as follows

	Generation plants	Buildings	Equipment	Communication and computers	Transportation equipment	Equipment under financial leasing	Total
31/12/2013	(482.936)	(18.004)	(11.394)	(8.980)	(958)		(522.272)
Write-offs	1.313	12	-	-	31	-	1.356
Depreciation expense	(139.264)	(4.798)	(6.426)	(2.942)	(238)	-	(153.668)
31/12/2014	(620.887)	(22.790)	(17.820)	(11.922)	(1.165)	-	(674.584)
Write-offs	1.133	-	349	-	17	-	1.499
Transfers	(8)	8	-	-	-	-	-
Depreciation expense	(218.752)	(6.640)	(5.144)	(2.036)	(253)	(4.903)	(237.728)
31/12/2015	(838.514)	(29.422)	(22.615)	(13.958)	(1.401)	(4.903)	(910.813)

Useful life used for depreciation are:

Generation Plants	10-70 years
Buildings	10-70 years
Equipment	5-40 years
Communication and computers	5-16 years
Transportation equipment	8-20 years

During 2015 loan costs were not capitalized (2014 - \$226.492) - (2013 - \$165.484)

#### (3) Main assets under construction correspond to the following projects:

Assets under construction	2015	2014	2013	Entrada en operación
Sogamoso hydroelectric plant	27.284	52.358	3.158.548	2014
Assets in transit	6.372	132	6.240	ND*
Construction and remodeling of the administrative building at the Miel plant	5.394	-	-	ND
Upgrade of the supervision and control system of Termocentro plant	1.760	-	-	ND
Overhaul Termocentro	1.300	-	-	ND
Excitation system modernization San Carlos	774	-	-	ND
Impellers San Carlos	-	-	8.468	ND
Amoyá hydroelectric plant	-	19	9.618	ND
Other minor projects	2.075	1.374	9.136	ND
Total assets under construction	44.959	53.883	3.192.010	

<sup>\*</sup> Non determined

The following is the gross value of totally depreciated assets that continued in operation to December 31 of each year:

Group	2015	2014	2013
Generation plants	41.098	30.377	12.968
Communications and computers	7.886	5.276	3.421
Equipment	2.435	2.401	1.738
Transportation equipment	102	102	14
Buildings	10	10	10
Total	51.531	38.166	18.151

For protection of its goods, ISAGEN S.A. E.S.P. has secured different insurance policies, amongst which:

Insured Good	Risks covered	Insured value	Expiry
a) Civil works, equipment, buildings, contents, warehouses and lost profits	All risks, material damages and lost profits (single combined limit USD500 M)	1.668.840	Junio 20 de 2017
b) Company equity	Civil liability Directors and Managers	40.000	Junio 21 de 2016
	Infidelity and Financial Risks	30.000	Diciembre 21 de 2016
	Liability in Tort	40.000	Diciembre 21 de 2016
	Money and security instruments management	250	Noviembre 30 de 2016
c) Machinery (loaders, motor-	All risk Machinery	4.419	Noviembre 30 de 2016
graders, bulldozers, etc.)	Liability in Tort	750	Noviembre 30 de 2016
d) Vehicles	Total losses from damages or theft.	1.451	Noviembre 30 de 2016
	Liability in Tort	3.000	Noviembre 30 de 2016
e) Vessels	All risks Vessels	1.431	Noviembre 30 de 2016
	Liability in Tort	500	Noviembre 30 de 2016
f) Multi Risk minor assets (Wind measuring towers, Hydrometric stations, Magnetotelluric equipment, Warehouse goods Satellite)	All risks Material damages	10.439	Septiembre 17 de 2016
g) Balance of debt to employees	Death by any cause and total and permanent incapacity of the insured worker	27.960	Junio 30 de 2016
h) Employee housing under loans	Fire and earthquake Housing.	23.608	Junio 30 de 2016

Commitments to purchase fixed assets and investments for 2016 and following years associated	d
with projects under construction are summarized below:	

Project	Value	Start-up Date
Sogamoso		
Contracts	7.375	2014
Work orders	89	2014
Agreements	1.981	2014

## 7. Intangible Assets

The following are breakdown of the book value of intangibles:

	2015	2014	2013
Cost	106.863	84.623	76.825
Accumulated amortization	(33.328)	(29.782)	(26.282)
Total intangible assets	73.535	54.841	50.543

#### Net cost details of intangibles:

	2015	2014	2013
Software (1)	27.309	27.309	27.309
Software accumulated amortization	(19.249)	(17.536)	(15.789)
Licenses (2)	23.369	20.441	18.168
License accumulated	(13.883)	(12.112)	(10.367)
Studies under development	52.896	33.705	26.862
Easements (3)	3.289	3.168	4.486
Easement accumulated amortization	(196)	(134)	(126)
Total intangible assets	73.535	54.841	50.543

- (1) Mainly includes software for corporate management system of \$12.515 (2014 \$12.515) and remaining useful life of 4 years. Also includes fully amortized software for \$9.543 (2014 \$9.517) (2013 \$9.388).
- (2) Corresponding mainly to license MYSAP ERP for a value of \$6.592 (2014 \$6.592) (2013 \$6.592).
- . The Company has fully amortized licenses in operation for a gross value of \$4.489 (2014 \$4.214) (2013 \$1.075).

#### (3) Detail developing studies shown below:

Stage development assets (intangible)	2015	2014	2013	Start-Up
Hydroelectric Project Cañafisto	29.424	15.614	12.721	ND*
Promoting Projects	6.685	4.127	5.494	ND
Hydroelectric Project Piedra del Sol	5.549	5.260	2.309	ND
Binational Geothermal Project	3.753	2.132	666	ND
Hydroelectric Project Patía	2.699	2.132	1.752	ND
Hydroelectric Project Samaná	1.831	1.831	1.831	ND
Wayuu Wind Farm Project	1.689	1.519	1.462	ND
Hydroelectric Project AYNA	826	795	436	ND
Hydroelectric Project Andaquí	295	295	191	ND
Proyecto Hidroeléctrico San Bartolomé	128	-	-	ND
Proyecto Geotémico MVR	17	-	-	ND
Total assets under development	52.896	33.705	26.862	

<sup>\*</sup> Non determined

<sup>(4)</sup> In 2015 18 easements were acquired for \$121, in December 2014 22 easements were derecognized which corresponded to the resettlement program of the Sogamoso hydroelectric plant for \$1.341. In 2013 were acquired eight easements for \$443.

Intangibles cost movement breakdown is included below:

	Studies in development	Licenses	Software	Easements	Total
31/12/2013	26.862	18.168	27.309	4.486	76.825
Additions	6.843	2.273	-	-	9.116
Transfers	-	-	-	(1.318)	(1.318)
31/12/2014	33.705	20.441	27.309	3.168	84.623
Additions	19.191	1.860	-	121	21.172
Transfers	-	1.068	-	-	1.068
31/12/2015	52.896	23.369	27.309	3.289	106.863

Accumulated amortization movements breakdown is included below:

	Licenses	Software	Easements	Total
31/12/2013	(10.367)	(15.789)	(126)	(26.282)
Amortization	(1.745)	(1.747)	(8)	(3.500)
31/12/2014	(12.112)	(17.536)	(134)	(29.782)
Amortization	(1.771)	(1.713)	(62)	(3.546)
31/12/2015	(13.883)	(19.249)	(196)	(33.328)

Useful lives used for amortization are:

Licenses	2 - 10 years
Software	5 - 11 years
Easements	26 - 70 years

### 8. Loans and receivables

Breakdown of loans and receivables is as follows:

	2015	2014	2013
Trade receivables (1)	436.071	297.313	262.285
Trade doubtful receivables (2)	8.465	1.421	1.435
Minus: impairment of trade receivables (3)	(8.521)	(1.421)	(3.324)
Trade receivables - net	436.015	297.313	260.396
Suppliers advances (4)	22.418	-	-
Accounts receivable from shareholders (5)	1.803	2.185	-
Accounts receivable from employees (6)	22.479	19.579	15.587
Trusts (7)	1.429	1.338	1.260
Advance payment of taxes and contributions (8)	30.376	1.827	2.768
Advanced payment of travel expenses	4	-	15
Other receivables	4.111	2.024	4.891
Total loand and receivables	518.635	324.266	284.917
Minus current portion			
Trade receivables	436.015	297.185	262.171
Minus: impairment of trade receivables	-	-	(1.976)
Anticipos a proveedores	-	-	-
Other receivables	3.555	881	4.121
Accounts receivable from employees	3.352	2.879	2.236
Advance payment of taxes and contributions	30.376	1.827	2.768
Trusts	1.429	1.338	1.260
Accounts receivable from shareholders	582	580	-
Advance payment of travel expenses	4	-	15
Total current portion	475.313	304.690	270.595
Total non current portion	43.322	19.576	14.322

#### (1) The balance of this account comprises the following:

	2015	2014	2013
Energy sales			
Clientes no regulados	221.025	137.427	91.523
Regulated clients	111.014	101.260	98.174
Energy Exchange	95.022	57.317	47.636
	427.005	296.004	237.333
Gas sales			
Non regulated clients	-	196	20.645
Regulated clients	6.910	79	1.687
	6.910	275	22.332
Technical services	2.100	1.034	2.620
	436.071	297.313	262.285

The sales term for energy is 30 days. For non compliance the maximum rate for delinquent interests is charged.

#### (2) The balance of this account comprises:

	2015	2014	2013
Exchange energy sales (*)	7.182	-	-
Energy sales to non regulated clients	811	856	856
Other debtors	472	565	579
	8.465	1.421	1.435

- \* Accounts receivable doubtful XM Company Market experts by \$7,182 per sales bag Termocandelaria...
- (3) Mainly includes provisions for receivables from XM Compañía de Expertos en Mercado of \$7.182 for exchange sales to Termocandelaria, Aluminio Reynolds Santo Domingo S.A. \$484 (2014 \$484) (2013 \$484), Megaproyectos S.A. \$271 (2014 \$271) (2013 \$271), Britilana Benrey S.A. of \$56 (2014 \$94) (2013 \$94), Siderúrgica Colombiana S.A. of \$57 (2014 \$114) (2013 \$114), Caloto Municipality \$401 (2014 \$401) (2013 \$401), other \$71 (2014 \$72) (2013 \$72).

Movement of impairment of accounts receivable from clients comprises:

	2015	2014	2013
Initial balance	(1.421)	(3.324)	(7.175)
Impairment	(7.182)	-	-
Recovery (*)	82	1.903	3.851
Final balance	(8.521)	(1.421)	(3.324)

(\*) Includes the recovery of Britilana Benrey of \$38, of Siderúrgica Colombiana S.A of \$57 and for impairment measurement recovered on December 31 for \$13.

In 2014 impairment of the account receivable from Empresas Municipales de Cali E.I.C.E. E.S.P. was recovered \$1.903 (2013 - \$3.063). In 2013 impairment of the account receivable from Texpinal was recovered for \$788.

To determine recoverability of Company receivables any changes in the credit rating of the debtor are taken into account from the date the credit was initially granted and the reporting date at the end of the period. Concentration of credits risks is limited due to non existence of concentration of sales per client or debtor.

The impairment recognized represents the difference between the accounting value of receivables and the present value of future flows expected to be received.

- (4) Corresponde a anticipos entregados a Biomax para el suministro de combustible líquido para la operación de la central Termocentro.
- (5) Mainly includes the account receivable from FEISA for said entity to provide financing to workers to purchase shares in the sales program of the Nation's share of \$2.185, divided into share credit of \$286 payable in 5 years at an interest rate 4% EA and an incentive credit of \$2.954 payable in 6 years.
- (6) Includes worker housing credits for \$14.108 (2014 \$14.998) (2013 \$11.256), vehicle purchase loans to workers for \$3.193 (2014 \$3.193) (2013 \$3.144) and other loans to employees of \$1.388 (2014 \$1.388) (2013 \$1.187).
  - The interest agreed for employee loans is between 6% and 7% effective annual rate.
- (7) Includes the Health Solidarity Fund, created for the purpose of attending serious health situations affecting workers that are beneficiaries of the Collective Agreement or Convention or members of the basic family group, regarding which existing alternatives for coverage have been exhausted. Fund resources, in addition to the initial Company contribution of \$200, are derived from semester contributions from employees and the Company, liquidated in the months of June and December, in equal proportions, equivalent to one percent (1%) of the value of the basic salary of each worker.

### (8) Corresponds to the following advanced payments and balances in favor:

	2015	2014	2013
Advance on income tax surcharge – CREE (*)	27.776	-	-
Sales tax in favor	1.633	1.396	2.744
Advances and balances in favor of Industry and Commerce taxes	967	431	24
Total	30.376	1.827	2.768

(\*) For 2014 and 2013 the net value between taxes and advances was payable, therefore is showing in liabilities.

Expiry of the non current portion of diverse clients and debtors for the next years is the following, without deducting the portfolio provision:

The real discussion ig a re-per trene provision.				
Year of expiry	Value			
2017	26.341			
2018	3.923			
2019	3.923			
2020	3.923			
2021 and following	5.212			
	43.322			

Age composition of debtor balances to December 31, 2015 was:

Type of Debtor	Not expired	Expired 1 to 180 days	Expired 181 to 360 days	Expired more than 360 days	Total
Accounts receivable from clients	435.582	489	-	-	436.071
Doubtful accounts	-	-	-	8.465	8.465
Doubtful accounts	30.380	-	-	-	30.380
Other debtors	50.811			-	50.811
Trust account	1.429	-	-	-	1.429
Impairment	(56)	-	-	(8.465)	(8.521)
	518.146	489	-	-	518.635

Age composition of debtor balances to December 31, 2014 was:

Type of Debtor	Not expired	Expired 1 to 180 days	Expired 181 to 360 days	Expired more than 360 days	Total
Accounts receivable from clients	297.196	117	-		297.313
Doubtful accounts	-	-	-	1.421	1.421
Doubtful accounts	1.827	-	-	-	1.827
Other debtors	61.018	20	1	-	61.039
Trust account	1.338	-	-	-	1.338
Impairment	-	-	-	(1.421)	(1.421)
	361.379	137	1	-	361.517

### Guarantees extended by debtors:

In general terms to secure client debts blank promissory notes are set up with instruction letters, advance payments are required, bank guarantees, real estate guarantees, resource management by trust funds in charge of making payments to ISAGEN and pledging of resources (owned by the client and subsidies granted by the Ministry of Mines and Energy).

For employee debts mortgages, pledges are secured and promissory notes are signed.

### 9. Other assets

#### Breakdown of other assets:

	2015	2014	2013
Prepaid expenses *	43.315	37.251	17.687
Land **	950	950	950
Rights in trust – WESP agreement ***	219	288	365
Other	357	357	357
Impairment	(398)	(398)	-
Total other assets	44.443	38.448	19.359
Minus current portion	(43.534)	(37.539)	(18.052)
Total non current portion	909	909	1.307

#### (\*) Breakdown prepaid expenses:

	2015	2014	2013
Combined material damage insurance	40.388	34.602	15.175
Surgery and hospitalization insurance	1.769	1.504	1.449
Civil liability insurance	409	467	497
Accident life insurance	377	362	312
Infidelity and financial risk insurance	91	91	78
Performance bond	8	64	65
Other policies	273	161	111
	43.315	37.251	17.687

(\*\*) Corresponding to land received in payment in the liquidation process of Textiles Espinal S.A. to pay for the debt acquired for energy sales. Said company entered into liquidation and the Corporation Superintendence distributed its goods among creditors. ISAGEN has a share of approximately 7,61% of the undivided property.

In 2014 an impairment of \$398 was recognized resulting from real estate appraisal at market prices.

(\*\*\*) Commercial and payment management trust created with Corficolombiana to manage the contributions made by the companies Wayuú S.A. E.S.P. and ISAGEN as part of the agreement executed for the development of a wind farm in Guajira. On December Al 31, 2015 this management trust was in process of accounting liquidation.

### 10. Inventories

Breakdown of the value of inventories is included below:

	2015	2014	2013
Materials and supplies (*)	53.281	77.866	73.594
Parts (**)	45.483	17.609	14.918
Advances (***)	4.287	14.972	3.872
Other inventories	238	269	274
Impairment (****)	(5.584)	(869)	(302)
Total inventories	97.705	109.847	92.356

- (\*) The variation is mainly due to the sales of Jet A1 fuel that, to December 31 had a balance of \$5.789 (2014 – \$41.273) and to larger purchases of materials and supplies for Termocentro and San Carlos plants.
- (\*\*) In 2015 larger purchases of parts for production centers were made and Sogamoso project inventories were entered.
- (\*\*\*) Chevron Petroleum Company for gas supply contract for \$ 4,287. In 2014 an advance it also had to Ecopetrol for the supply of gas for \$ 12,569.

Note: Inventories of the Company are mostly in order to ensure the availability of plants and in that sense are kept at reasonable levels and the possibility of being used immediately.

(\*\*\*\*) Inventory impairment movement includes:

	2015	2014	2013
Initial balance	(869)	(302)	(743)
Charge	(4.715)	(567)	-
Recovery	-	-	441
Final balance	(5.584)	(869)	(302)

In 2015, the value of inventories recognized as consumption expenses or operation and maintenance costs was \$26.820 (2014 - \$16.854) (2013 - \$22.869).

For 2015, the value recognized as expense for inventory losses due to obsolescence and damage was \$420 (2014 - \$138) (2013 - \$296).

On its part, during the period a recovery of \$1.154 (2014 - \$434) (2013 - \$427) was obtained corresponding to income from inventory surpluses.

### 11. Investments

Investments to December 31, comprise financial assets measured at fair value with change to period income on account that the same are financial assets mainly acquired to negotiate and generate short term profits.

The Company also has investments in equity instruments acquired in 2011 which have been kept at acquisition cost and corresponds to shares in a company whose corporate purpose

in integrating information sources and resolve problems concerning sufficient operative and commercial information for gas management, the Company does not have control and are not held for negotiation or generation of short term profits.

The balance of investments December 31, included:

### Investments at fair value with changes to income

	Interest rate EAR 2015	2015	2014	2013
Debt Instruments				
Certificates of Deposit (CD)	4,80 - 4,85%	-	80.157	-
TIDIS		-	-	17.084
		-	80.157	17.084
Participative Securities				
Collective Portfolios (1)	3,91% - 4,71%	1.822	4.365	3.454
Total investments at fair value with changes to income		1.822	84.522	20.538

### Investments held for sales (Equity investments in non controlled entities)

	Economic activity	Common shares	% Interest	2015	2014	2013
Participative securities shares						
Gensa S.A. E.S.P	Energy	154.270.818	0,03	2.106	2.106	2.106
Electricaribe S.A. E.S.P.	Energy	7.623.656	0,02	320	320	320
Concentra Inteligencia en energía S.A.S. E.S.P.	Data Processing	84.000	5,00	84	84	84
				2.510	2.510	2.510
Minus: Impairment (2)				(2.426)	(2.426)	(2.426)
Total non current investments				84	84	84
			1			

The rating assigned to the market risk of investments recognized at fair value through profit or loss was "2" and credit risk was "AAA".

#### (1) Breakdown for 2015, 2014 and 2013 was:

Counterparty	Rate %	2015	2014	2013
Fiduciaria Bogotá	4,43	536	284	239
Fiduciaria Bancolombia	4,37	519	229	220
Corredores Asociados	4,71	504	934	451
Valores Bancolombia	4,40	116	339	206
Credicorp Capital	3,91	95	473	207
Fiduciaria de Occidente	4,12	52	911	873
Corficolombiana	-	-	715	802
Fiduciaria BBVA	-	-	480	456
Total		1.822	4.365	3.454

(2) Corresponds to impairment recognition of investments in Gensa S.A. E.S.P. and Electricaribe S.A. E.S.P. which do not have an active market.

No investment had restrictions in 2015, 2014 and 2013.

#### Issuer and counterparty risk

Every month, the Company applies a model of issuer and counterparty quotas for the purpose of defining maximum credit exposure for different financial entities that meet the guidelines established by ISAGEN. Quotas are permanently monitored and approved by a committee in order to alert of possible excesses in the use of these limits. To December 31, 2015, 2014 and 2013, all entities were within the allowable limits.

Investments with cutoff date to December 2015 show eleven (11) local banking entities and two (2) international entities (JP Morgan and Bank of America); six (6) collective investment funds. Portfolio yield in the month of December were 4,86% EAR for the position in pesos. It is important to note that the position in dollars is for complying with debt payment and treasury commitments which the Company has in other currencies. Currently, these resources are with national entities having credit ratings of AAA/AA+, and supervised by the Financial Superintendence of Colombia; and international entities with A+/A, thus complying with internal regulations.

#### Market risk

Regarding market risks, the Company has a model for estimating VaR (Value at Risk), monthly applied to Company's treasury position, with a confidence level of 99% and a time horizon of 1 year.

At the closing of 2015, VaR was 594.20 (0,36%) of the portfolio value that includes bank accounts and investments measured at fair value.

At the closing of 2014, el VaR was 1,297 (0,04%) of the portfolio value, including bank accounts and investments measured at fair value.

Average life (duration) of treasury position at the closing of 2015 was 1 day, whereas for 2014 it was 20 days. The strategy of payment on demand instruments is maintained.

ISAGEN has agreements which, on account of their characteristics are categorized as joint agreements, these agreements have not been established by way of separate vehicles as provided under FRS, to be considered joint ventures, and therefore are classified as joint operations described below:

Name	Domicile (Country)	Participation percentage	Nature	Scope
Academic and scientific cooperation (National University agreement 47_52)	Colombia	50%	Generate knowledge to support the design, development and management of the environment from a technical, social and environmental perspective	<ul> <li>Formulation and execution of environmental research studies and/or projects.</li> <li>Scientific, technical and/or academic exchanges.</li> <li>Organization of multidisciplinary groups for research or specific tasks.</li> <li>Organization of technical or scientific events.</li> <li>Publication and exchange of research outcomes.</li> </ul>
Geothermal (National University agreement 47_118)	Ruiz volcanic massif Colombia	85.5%	Conceptual geothermal model research through magnetotelluric techniques.	<ul> <li>Geological, geophysical and geochemical review of the area under study</li> <li>Field work.</li> <li>Processing of gathered information.</li> <li>Interpretation of the information generated.</li> <li>Institutional strengthening.</li> </ul>
AYNA (agreement HMV engineers 47_48)	Perú	50%	Feasibility studies for hydroelectric project	<ul> <li>Perform field work and supplementary studies for feasibility study.</li> <li>Geological and geotechnical research.</li> <li>Review of drawings at feasibility level of main and supplementary civil works.</li> <li>Review general technical characteristics of hydromechanic, mechanic and electric equipment.</li> </ul>
LAGEO (Cooperation framework agreement)	Salvador - Colombia	50%	Technical cooperation in areas of common interest relating to the industry of electric power generation from conventional sources (hydroelectric) and non conventional (wind and geothermal).	<ul> <li>Exchange of technical, scientific, economic, legal and environmental information.</li> <li>Presentation of technical consultancies.</li> <li>Development of joint research activities to evaluate, develop, explore and exploit geothermal fields, hydric resources and non conventional energy sources.</li> <li>Identification of new markets and opportunities for joint investment.</li> </ul>

Name	Domicile (Country)	Participation percentage	Nature	Scope
Hydroelectric Project	Department	50%	Carry out all preliminary activities before commencement of construction of	Field work and supplementary work for design execution.
Piedra del Sol (HMV 47_23)	of Santander- Colombia		hydroelectric project.	<ul> <li>Preparation of detailed designs, drawings and technical specifications for civil works.</li> </ul>
				<ul> <li>Preparation of designs for provision of hydromechanics, mechanic and electric equipment.</li> </ul>
				Design, drawings and specifications for interconnection works.
Binational Geothermal Project	Colombia	50%	Planning, development and execution of	Information gathering and analysis.
Colombia - Ecuador	Colombia - Ecuador - Ecuador project pre-feasibility phase (CELEC 46 4233) Border	project pre-feasibility phase	Financial resource management.	
(00000 40_4200)	Dorder			Review the extension and the limits of the area of interest.
				Mapping restitution.
				Secure environmental license.
				Geology studies.
				<ul> <li>Geochemical and geophysical studies.</li> </ul>
				Well drilling.
				<ul> <li>Geothermal field analysis and feasibility.</li> </ul>
Wesp Agreement (National University 46_2020)	Colombia	64%	Regulate terms and conditions of parties in the structuring of a wind generation project in La Guajira of 32 MW	Develop, at own risk and account, the self-generation plant.

### 12. Cash

Available to December 31, comprising the following:

	2015	2014	2013
ash in hand, banks and corporations:			
Cash	46	43	79
Bank of America Miami Florida USA	169.505	120	96
Bancolombia (*)	124.466	98.180	152.009
J.P. Morgan Chase	22.722	6.042	1.421
BBVA	17.523	23.694	43.834
Banco de Bogotá	15.701	10.375	8.597
Banco GNB Sudameris (**)	4.696	42.739	4.008
Banco de Bogotá Miami	4.224	4.600	4.744
Davivienda	2.129	4.494	261
Banco Agrario de Colombia	1.200	256	492
Colpatria	724	57	656
AV Villas	577	4.705	251
Banco de Occidente	468	7.876	11.932
Helm Bank	278	33.068	264
Corficolombiana	252	89	7
Corpbanca (formerly Banco Santander)	2	3.331	443
Citibank	-	4.632	61
Banks and corporations	364.467	244.258	229.076
otal Cash	364.513	244.301	229.155

These accounts provide an average yield of 4,86% EAR (2014 - 3,90% EAR)

(\*) Including \$195 (2014 - \$215) (2013 - \$212) collected from the Share Democratization Program corresponding to Nation resources.

(\*\*) It includes \$4,119 corresponding to the security of the supply contract of liquid fuels for Termocentro center, which supports a possible breach of Biomax equivalent Reliability Charge. These resources may only be used in case of breach of Biomax.

Derived from OPIC insured credit commitments, Bancolombia savings and current accounts keep, as minimum, the value of debt service for one semester of this loan.

There are no additional restrictions or limitations to those above indicated.

# 13. Capital

Al 31 de diciembre el capital suscrito y pagado estaba conformado así:

	2015				
Shareholder	Number of shares	Value	%		
The Nation (1)	1.570.490.767	76.954	57,61		
Empresas Públicas de Medellín - E.S.P.	358.332.000	17.558	13,14		
Protección Pension Fund	126.868.047	6.217	4,66		
Fondo de Pensiones Porvenir	191.163.739	9.367	7,01		
Minorities (2)	479.217.447	23.482	17,58		
Total corporate capital	2.726.072.000	133.578	100		

Annual General Meeting held on March 25, 2015, decided to release some of the occasional reserves to increase capital account and paid \$65,426 for a new subscribed and paid capital \$133,578.

	2014				
Shareholder	Number of shares	Value	%		
The Nation (1)	1.570.490.767	39.262	57,61		
Empresas Públicas de Medellín - E.S.P.	358.332.000	8.958	13,14		
Protección Pension Fund	152.555.521	3.814	5,60		
Fondo de Pensiones Porvenir	89.577.492	2.239	3,29		
Minorities (2)	555.116.220	13.879	20,36		
Total corporate capital	2.726.072.000	68.152	100		

	2013				
Shareholder	Number of shares	Value	%		
The Nation (1)	1.571.919.000	39.298	57,66		
Empresas Públicas de Medellín - E.S.P.	352.960.000	8.824	12,95		
Protección Pension Fund	133.639.132	3.341	4.90		
Fondo de Pensiones Porvenir	109.235.240	2.731	4,01		
Minorities (2)	558.318.628	13.958	20,48		
Total corporate capital	2.726.072.000	68.152	100		

(1) On September 10, 2015 the national Government reactivated the sales process of its share participation in the Company. Consequently, in the month of December, the National Government established a new minimum share price and the date for the auction which was scheduled for January 13, 2016.

To December 31, date of presentation of financial statements, the auction of 57,61% shares owned by the Nation had not taken place, and the same were subsequently awarded to BRE Colombia Investments LP, from the Canadian investment fund Brookfield Asset Management, and therefore do not include any adjustment arising from the change of control.

(See Note 34 Subsequent events)

(2) Minority shareholders are all the owners, beneficiaries or managers of common shares that, as a whole, represent as maximum three percent (3%) o common shares in circulation.

Company capital was represented in 2015, 2014 by 2.726.072.000 authorized, subscribed and paid shares of a nominal value of \$49 and \$25 per share respectively.

There are no restrictions on the distribution of dividends or the reimbursement of capital concerning these shares, Nonetheless, Company bylaws define the formula by way of which liquid profit is defined, used by the General Stockholders' Meeting as a basis to define the annual distribution of dividends. This formula establishes that from earnings after taxes, reserves mandated by law (legal reserve and the reserve provided under Article 130 of the Tax Statute) are subtracted, stem losses, if any, and other reserves (if defined) are subtracted to preserve credit rating and/or honor commitments with Financial Creditors.

### 14. Reserves

The balance of reserves to December 31 includes:

	2015	2014	2013
Occasional reserve for credit rating (1)	720.906	910.744	745.741
Tax mandated reserves (2)	869.671	806.884	755.188
Legal reserve (3)	68.027	51.134	51.134
Occasional reserve for investments (4)	38.446	38.446	38.446
Total reserves	1.697.050	1.807.208	1.590.509

- Occasional reserve approved by the Stockholder's Meeting to maintain the Company's credit rating and compliance with commitments with creditors and investors. The value established for 2015 was \$ 189.838 (2014 - \$165.003).
- (2) The General Stockholders' Meeting, in compliance with Article 130 of the Tax Statute has appropriated this reserve since 2004 from net profits equivalent to 70% of the higher value of tax depreciation over accounting depreciation. According to legal provisions this reserve may be liberated to the extent that depreciations later accounted exceed those annually required for tax purposes, or assets are sold generating the higher deducted value. The value established for 2015 was \$86.733 (2014 \$74.130) and liberated \$23.946 (2014 \$22.434).

- (3) Pursuant to law, the Company has the obligation to appropriate 10% of its annual net profits as legal reserve until the balance in this reserve is equivalent to 50% of subscribed capital. The mandatory legal reserve cannot be distributed before Company liquidation, but may be used to absorb or reduce annual net losses. Balances in the legal reserve exceeding 50% of subscribed capital are freely available to shareholders. To December 31, 2015 and 2014, the amount of this reserve was the minimum mandatory amount.
- (4) Occasional reserve for investments approved by the General Stockholders Meeting in 2009.

# 15. Financing Operations

The balance of financing operations on December 31 included:

	Interest rates 2015	2015	2014	2013	Maturity
Banking Club Deal (1)	IBR+4,30%	1.560.625	1.540.698	1.085.574	2025
Power Finance Trust Limited (2)	IPC+5,25%	364.844	379.718	412.650	2025
Bonds 15 (3)	IPC+6,99%	411.432	409.642	410.706	2024
Bonds 10 (3)	IPC+6,48%	301.807	299.388	301.053	2019
Bonds 7 (3)	IPC+5,93%	209.777	207.984	209.887	2016
Bank Loan (4)	IBR+4,30%	245.559	242.622	-	2026
Bank Loan (5)	IBR+4,05%	251.859	-	-	2026
Banco Santander Spain (6)	LIBOR+1.40%	157.624	118.220	87.974	2032
Financial leasing (7)	DTF+4,1%	89.996	82.761	79.683	2031
JBIC (8)	LIBOR+2,85%	108.407	77.897	60.863	2025
Banco of Tokyo-BBVA (9)	LIBOR+1%	36.294	36.756	38.558	2018
Total financing operations		3.738.224	3.395.686	2.686.948	
Menos – Porción corriente		(310.486)	(96.537)	(70.535)	
Non current portion (10)		3.427.738	3.299.149	2.616.413	

- (1) Corresponding to the internal loan agreement signed in 2010 with ten (10) banks for \$1.545.000 to finance the Sogamoso Hydroelectric project.
- (2) Corresponding to the loan with Power Finance Trust Limited obtained in 2005 with a term of 20 years, a grace period of 5 years, amortization in 30 semester installments, guaranteed by the Nation and OPIC (Overseas Private Investment Corporation) bond.
- (3) Corresponding to bonds for \$850.000 to finance the Sogamoso project. Management of securities is conducted by Deceval S.A. and issuance has a AAA rating from Fitch Ratings Colombia.

- (4) Corresponding to the internal loan agreement executed in June 2014 with Bancolombia and Banco de Bogotá for \$240.000 destined to finance the Sogamoso Hydroelectric project. Credit conditions are: term 12 years, grace period 3 years and IBR+4,30% rate.
- (5) Corresponding to the loan agreement executed in December 2014 with Davivienda for \$250.000 destined to finance the Sogamoso Project. Credit conditions are: term 12 years, grace period 3 years and IBR+4,05% rate.
- (6) Corresponding to the amount disbursed under a credit agreement for a total amount of USD73, executed in November 2012 to finance the turbines for the Sogamoso project. The agreement is financed by Banco Santander Spain, has ECA (Export Credit Agency) guarantee Alemana Euler Hermes, for a term of 20 years, grace period 1,3 years and 6-month amortization.
- (7) Corresponding to financial leasing agreements with Leasing Bancolombia S.A., acquired in 2010, to finance equipment for the Sogamoso Project by vendors IMOCOM and SIEMENS, term 15 years as of the date of delivery of the equipment, principal grace period 5 years and payment of 24 rentals every 6-months at FCD+4,1%.
- (8) Corresponding to the amount disbursed under tranche A of the credit agreement for a total amount of USD 66, executed in 2012 to finance Sogamoso Project generators. The agreement is financed by Japan Bank for International Corporation (JBIC) for a term of 12 years, grace period 6 years and 6-month amortization.
- (9) Corresponding to the amount disbursed of tranche B of the credit agreement for a total of USD 66, executed in 2012 to finance Proyecto Sogamoso generators. The agreement is financed by Bank of Tokyo-Mitsubishi UFJ Ltd. and Banco Bilbao Vizcaya Argentaria S.A., for a term of 5 years, grace period 1,5 years, 6-month amortization and ECA (Export Credit Agency) NEXI guarantee.

#### (10) Maturity of non current financial obligations in following years is:

Maturity Year	Value
2017	236.912
2018	278.023
2019	566.709
2020	287.315
2021 and following	2.058.779
	3.427.738

In 2015 financial obligations were paid in the amount of \$53.171 (2014 - \$37.815).

La Company has its financing operations guaranteed as follows:

- Pledging of income for \$47.199 (2014 \$39.283) (2013 \$35.390) every 6-months as counter-guarantee in favor of the Nation for its guarantee of the credit with Power Finance Trust Limited.
- Notes signed in favor of Bancolombia S.A., Banco de Bogotá S.A., Banco Agrario S.A., Banco Davivienda S.A., Banco Popular S.A., Banco de Occidente S.A., Banco BBVA Colombia S.A., Banco Corpbanca Colombia S.A., Banco AV Villas S.A. and Helm Bank S.A until December 2025.
- Notes signed in favor of Bancolombia S.A., Banco de Bogotá S.A. until February 2026.
- O Notes signed in favor of Banco Davivienda S.A. until December 2026.
- Notes signed in favor of Leasing Bancolombia S.A. as guarantee of the financial leasing agreements to acquire equipment for the Sogamoso Project, supplied by SIEMENS S.A, and IMOCOM S.A. until the end of 2029.
- Note signed in favor of Power Finance Trust Limited until December 2025 and letter of credit to secure payment of semester installments.

Pending disbursement of \$812 (2014 - \$21.285) (2013 - \$24.987) under leasing agreements.

Currently ISAGEN has negotiated with national and international creditors, financial commitments to control Company debt (Debt/EBITDA) and obligations that require cash generation levels to secure coverage of debt service (EBITDA/Debt service). Additionally, there are a series of environmental commitments set forth in each of the financing agreements signed

Commitments are permanently monitored by creditors and risk rating agencies and to this date ISAGEN has complied with all its acquired commitments.

The credit with political risk insurance of American Agency OPIC and guaranteed by National Government, includes an indexing operation to mitigate exchange rate and interest rate risks. Agreement conditions stipulate that in the event of a change of control, namely, if the Nation decreases its participation in ISAGEN to less than 50%, a mandatory prepayment of the credit is generated within the following 90 days and the indexing operation must be liquidated, thus implying recognition of the respective impact in the income statement for the period in which this event materializes. To December 31, 2015, said impact derived in an expense of \$87.870 (\*); however, since the value depends on the evolution of market interest rates, the same will be calculated on the date the event occurs.

To December 31, 2015 the event of obligation prepayment did not occur, and neither has any impact been generated. (See Note 34 Subsequent Events).

(\*) Estimated as the difference between the net present value of the current credit expected flows and the net present value of credit expected flows on the terms initially agreed.

ISAGEN evaluates, controls and follows risk exposure derived from debt operations, applying management policies to defined Company risks, seeking to minimize negative impacts arising from adverse movements in financial markets and/or detriment of economic variables applying controls to mitigate operative risks.

Under the policy devised to manage market risks associated with the debt, debt service for the year was hedged by maintaining active positions in dollars, thus allowing to reduce paid debt service by approximately \$2.117. Likewise, at the end of the year 50% of principal owed in dollars and the debt service for 2016 is hedged. With this strategy, the impact of the exchange rate was mitigated by \$8.941.

Debt operations may be performed up to the total amount allowed by maximum debt capacity.

Capitalization decisions are made taking into account the defined financial structure and/or the established strategic objectives.

Debt operations are aimed at covering Company resource needs for working and investment capital and are performed under market conditions, taking into account opportunity, term, cost and financial risk criteria; amortization terms are defined according to the investment or cash flow behavior.

Different debt variables are analyzed for the purpose of defining the need to carry out hedging operations.

### 16. Deferred income tax

Deferred income tax breakdown was the following:

	2015	2014	2013
Active deferred tax	43.367	33.727	27.374
Passive deferred tax	(726.792)	(602.059)	(550.579)
Passive deferred tax, net	(683.425)	(568.332)	(523.205)

Deferred income tax movement was the following:

	2015	2014	2013
Initial balance	(568.332)	(523.205)	(497.046)
Charged to comprehensive income statement	(115.753)	(44.990)	(14.590)
Effect deferred tax other comprehensive income	660	(137)	(11.569)
Final balance	(683.425)	(568.332)	(523.205)

Active and passive deferred tax movement for the year was:

#### Active deferred taxes

	Property plant and equipment	Other assets	Financial Obligations	Other liabilities	Total
31-12- 2013	-	11.397	15.977	-	27.374
Charged to comprehensive income statement		190	6.163	-	6.353
31-12-2014	-	11.587	22.140	-	33.727
Charged to comprehensive income statement	-	(3.933)	13.573	-	9.640
31-12-2015	-	7.654	35.713	-	43.367

#### Passive deferred taxes

	Property plant and equipment	Other assets	Financial Obligations	Other liabilities	Total
31-12-2013	(545.624)	-	-	(4.955)	(550.579)
Charged (credited) to comprehensive income statement	(54.667)	-	-	3.324	(51.343)
Charged (credited) to other comprehensive income	-	-	-	(137)	(137)
31-12-2014	(600.291)	-	-	(1.768)	(602.059)
Charged (credited) to comprehensive income statement	(124.189)			(1.204)	(125.393)
Charged (credited) to other comprehensive income	-	-	-	660	660
31-12-2015	(724.480)	-	-	(2.312)	(726.792)
Total deferred tax, net	(724.480)	7.654	35.713	(2.312)	(683.425)

#### Breakdown of the charge to income was:

	2015	2014
Active deferred taxes	9.640	6.353
Passive deferred taxes	(125.393)	(51.343)
Total deferred taxes expense	(115.753)	(44.990)

# 17. Provisions

#### Provision breakdown is included below:

	2015	2014	2013
Provision for retirement pension and post-employment benefits <sup>(1)</sup>	87.540	84.850	82.535
Provision for income and income related taxes $\sp(2)$	-	22.278	43.156
Provision for social benefits (3)	24.400	19.436	17.625
Provision for contingencies (4)	4.201	4.342	2.929
Other provisions (5)	802	756	916
Total provisions	116.943	131.662	147.161
Minus current portion:			
Retirement pensions	6.683	5.893	9.677
Provision for income and income related taxes	-	22.278	43.156
Provision for social benefits	6.394	5.528	4.668
Other provisions	802	756	916
Total current portion	(13.879)	(34.455)	(58.417)
Total non current portion (6)	103.064	97.207	88.744

<sup>(1)</sup> Provisions for pensions and post-employment benefits in the statement of financial position are:

	2015	2014	2013
Pensions (*)	42.032	41.644	42.969
Medical benefits post-employment (**)	41.952	39.515	36.562
Education subsidy and contributions	3.556	3.691	3.004
	87.540	84.850	82.535

#### (\*) the amounts recognized in the statement of financial position are determined as follows:

	2015	2014	2013
Current value of obligations (a)	77.452	76.968	78.634
Plan assets' fair value (b)	(35.420)	(35.324)	(35.665)
Total pensions	42.032	41.644	42.969

#### (a) Liability movement recognized in the statement of financial position was:

	2015	2014	2013
Initial balance	76.968	78.634	92.964
Interest cost	5.216	5.380	5.737
Payments	(6.356)	(5.718)	(7.569)
Actuarial profit	1.624	(1.328)	(12.498)
Final balance	77.452	76.968	78.634

#### (b) Plan asset fair value movement:

	2015	2014	2013
Initial balance	35.324	35.665	36.987
Contributions	-	1.281	3.257
Pension payments	(6.356)	(5.718)	(7.569)
Yields	1.412	1.482	1.219
Actuarial profit	5.040	2.614	1.771
Final balance	35.420	35.324	35.665

A trust managed by Fiducoldex was established to support pension liabilities and post-employment benefits; the investment portfolio of this trust to December 31 comprises the following:

Tuno of invoctment	2015		2014		2013	}
Type of investment	Value	%	Value	%	Value	%
Public debt fixed rate	15.937	45	14.251	43	13.752	39
Bonds inflation rate	7.162	20	8.438	25	10.338	29
CD interbank rate	6.080	17	4.714	9	4.369	12
Bonds fixed rate	3.238	9	3.326	10	3.353	9
CD inflation rate	2.503	7	2.076	6	1.495	4
Liquidity	-	-	1.759	5	1.923	6
Securitization Mortgage fixed rate	353	1	468	1	-	-
Securitization inflation rate	147	1	292	1	435	1
Total	35.420	100	35.324	100	35.665	100

The fund currently established was formalized by execution of an agreement on March 14, 2011 for a term of 5 years.

(\*\*) Liability movement recognized in the statement of financial position was:

, ,			
	2015	2014	2013
Initial balance	39.515	36.562	54.236
Interests cost	2.725	2.555	3.417
Services cost	1.488	1.258	2.033
Payments	(1.170)	(1.139)	(1.072)
Actuarial loss (gain)	(606)	279	(22.052)
Final balance	41.952	39.515	36.562

Charges to the comprehensive income statement for pensions and postemployment benefits was:

	2015	2014	2013
Net pension expense – Interests cost	3.804	3.898	4.518
Post-employment medical benefits expense (i)	4.213	3.813	5.450
Education subsidy and contributions expense (ii)	376	277	281
Total	8.393	7.988	10.249

(i) Amounts recognized in the comprehensive income statement for medical benefits were determined as follows:

	2015	2014	2013
Interests cost	2.725	2.555	3.417
Services costs	1.488	1.258	2.033
Total	4.213	3.813	5.450

(ii) Amounts recognized in the comprehensive income statement for education subsidies and contributions were determined as follows:

	2015	2014	2013
Social security contributions			
Interests cost	54	65	77
<b>Education subsidy</b>			
Services cost	134	79	82
Interests cost	188	133	122
Total	376	277	281

Charges in other comprehensive income for pensions and postemployment benefits were as follows:

	2015	2014	2013
Actuarial (loss) gain for pensions	(2.129)	1.328	12.498
Actuarial (loss) gain for severance payments	(462)	(1.167)	343
Actuarial gain (loss) for post-employment medical benefits	605	(279)	22.051
Actuarial gain (loss) for education subsidy and contributions <sup>(i)</sup>	45	(201)	165
Total	(1.941)	(319)	35.057

#### (i) Includes:

2015	2014	2013
(36)	(117)	91
81	(84)	74
45	(201)	165
	(36) 81	(36) (117) 81 (84)

For purposes of valuation it is assumed that the annual cost of the education subsidy will increase according to expected inflation.

According to the analysis performed in previous years, it is believed that an acceptable range for long-term inflation rate in Colombia is from 3% to 5%. As a better estimate to December 31, 2015 within the above mentioned range, the actuary suggests using a 3,5% rate. This inflation rate is consistent with future expectations and is included at the proposed discount rate.

Pursuant to the terms of the collective labor convention and the collective agreement, ISAGEN will recognize an education subsidy for active and retired employee children until reaching the age of 25, and the amounts of the subsidy are determined as described below:

- For preschool, grade and high school, the subsidy is equivalent to three (3) minimum legal monthly salaries in effect, per year per child.
- For higher education, the subsidy is equivalent to three point forty-three (3,43) minimum legal monthly salaries in effect, per year and per child.

Main estimates used for actuarial calculations were:

2015	2014	2013
7,6%	7,0%	7,1%
7,6%	7,0%	7,1%
3,5%	3,0%	3,0%
4,5%	4,0%	3,5%
4,0%	3.5%	3,5%
3,5%	3,0%	3,5%
	7,6% 7,6% 3,5% 4,5% 4,0%	7,6%       7,0%         7,6%       7,0%         3,5%       3,0%         4,5%       4,0%         4,0%       3.5%

Pursuant to IAS 19, the type of interest applied to discount post-employment benefits payable to workers, must be determined using market yields as reference, on the date of the balance, for bond issuance or high quality corporate obligations. In countries where a large market for these instruments does not exist, the yield of government issued bonds shall be used, on the date of the balance.

Colombia does not have a large market of fixed income, high quality and long term financial instruments that may be used as reference. Consequently, ISAGEN established its discount rate hypothesis based on the inflation assumption and the yield curve of Government Bonds (TES B curve) denominated in real value units (RVU), with have "Investment Grade" since 2010.

The rates of the real yield curve are obtained from the information published daily by the Colombian Stock Exchange.

The table below shows the behavior in present value of the obligation for each of the benefits defined in respect of the percentage variation of 100 basic points above or below that used for actuarial calculations.

Assumptions	Pension	Social security contributions	Severance	Education	5-years	Seniority	Medical
Obligation base	77.452	572	3.869	2.985	541	13.583	41.952
Changes in discount rate							
Discount rate increase +1%	69.949	564	3.540	2.747	509	12.740	36.241
Discount rate reduction -1%	87.644	579	4.239	3.260	576	14.535	49.171
Changes in salary increase							
Salary increase rise +1%	-	-	4.386	-	580	14.624	-
Salary increase reduction -1%	-	-	3.400	-	505	11.377	-
Changes in benefits increase							
Benefit increase rise +1%	-	-	-	3.283	-	-	-
Benefit increase reduction -1%	-	-	-	2.724	-	-	-
Changes in medical trend							
Medical trend increase +1%	-	-	-	-	-	-	47.890
Medical trend reduction -1%	-	-	-	-	-	-	37.237

#### Summary of main demographic hypothesis

Item	Assumption
Age of retirement (employees included in the pension plan of the collective labor convention or collective agreement de ISAGEN)	55 years for men and 50 years for women, 20 years of service, for both men and women.
Age of retirement (remaining employees)	According to date of birth:  • Men born before 1/1/1954 and women born before 1/1/1959: 60 years (men) and 55 years (women)  • Men born after 31/12/1953 and women born after 31/12/1958: 62 years (men) and 57 years (women)
Mortality	RV-08 (Valid retirees)
Disability	Not applicable
Rotation	Not applicable

Actuarial calculations include 135 retirees of which 111 retirees with shared pension (2014 – 113) (2013 – 95), 17 retirees and expecting pension from Colpensiones (2014 – 18) (2013 – 39), 6 life substitutions (2014 – 4) (2013 – 2), 1 active worker having met retirement requirement and awaiting process completion with Colpensiones (2014 – 2) (2013 – 2).

#### (2) Provision for ordinary income tax

To calculate income taxes the following criteria were taken into account, among others:

- Tax revenues are levied at a 25% rate.
- On June 4, 2010, ISAGEN and the Nation (Ministry of Mines and Energy) signed an agreement
  for legal stability for the entire Company for a period of 20 years. By way of this agreement, tax
  provisions, certain customs requirements and other provisions relating to public utilities were
  stabilized. Among tax provisions the following are noted: ordinary income tax tariff, special
  deduction of 30% for new investments in productive fixed assets, tax discount of VAT paid
  upon importing heavy machinery for basic industries, exclusion of nominal revenue for residential public utility companies and companies developing supplementary activities of power
  generation and tax exemption for external public credits.
  - This agreement guarantees that, in the event of adverse modifications to the provisions stabilized thereunder, such stabilized provisions will continue to apply throughout the term of the agreement
- Law 1430 of 2010, eliminated the special deduction for investments made in productive fixed assets established in article 158-3 of the Tax Statute, however, by executing the legal stability agreement mentioned above, this provision was stabilized for a period of 20 years.

Enforcement of this provision and based on the investments performed, both in direct purchase as by financial leasing with irrevocable purchase option, ISAGEN decreased ordinary liquid income for the period by \$36.675 (2014 - \$270.399) (2013 - \$258.720).

- Power generation companies are not subject to the nominal income regime.
- Deductibility of 100% of industry and commerce, signs and boards and real estate taxes, effectively paid during the year or the taxable year, provided the same are associated with the economic activity taxpayer.
- Deductibility of 50% of the tax on financial movements.
- The 2012 Tax Reform, included a limitation to the deductibility of interest expenses, ignoring
  interests exceeding the average debt limit of 3 times the liquid equity of a company in the
  preceding year. At the closing of 2015, the Company did not have to limit any amount in this
  regard.

#### Income tax for equity - CREE-

- The applicable tariff is 9%.
- The taxable base is composed of income susceptible of increasing company equity, clear of devolutions, income not taxed and permitted deductions by law and regulations.

- Does not allow to eliminate from the taxable base, special deductions for productive fixed assets and other special deductions not expressly included in regulations.
- A minimum taxable base of 3% of liquid equity in the preceding year is established.

#### Surtax on income tax for equity CREE

Law 1739 of 2014 created a surtax for legal entities for the years 2015 to 2018. Technically corresponds to an increase in the rate CREE and not a surtax. That is because this surtax is applied to the taxable base CREE and not to the tax.

Taxable Base: Obtained in the same way that applies to the CREE.

- o Rate: 2015: 5%, 2016: 6%, 2017: 8% 2018: 9%.
- O Payment in advance: during the years 2015-2018 legal persons settled a payment in advance deposit of 100%. The tax base used will be calculated for the CREE of the previous year. It will be paid in two annual installments within the time limits set by the Government.

#### Tax on Wealth

Taxes paid in this respect in 2015 were \$29.983, corresponding to the tax created under Law 1739 of 2014, estimated on liquid equity held on January 1, 2015, at a rate of 1.15%. This value was charged to the income statement.

For legal obligations should result in 2016 and 2017, the company will determine the value according to the rate marginalizes 1% and 0.4% respectively.

#### Other taxes

Discount of VAT paid for importing or acquiring heavy machinery for basic industries. The estimated discount value generated by this provision in 2015 was \$474 (2014 - \$2.797).

Determination of ordinary income tax to December 31, is included below:

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	2015	2014
Earnings before the provision for income taxes	494.518	508.472
Plus non deductible expenses or taxable income:		
Provisions	24.793	9.653
Other non deductible expenses	114.530	106.250
Income from investment valuation	-	-
Other income	180	104
Minus non taxable income and deductible expenses:		
Non taxable income from recoveries	5.132	3.657
Deductible provisions	401	3.965
Higher expense tax depreciation	391.271	106.177
Adjustment for inflation inventory retirement	93	79
Deduction productive fixed assets	36.675	270.399
Other deductible expenses	1.168	1.753
Other non taxable income	3.065	981
Profit from fixed asset sales	-	-
Liquid taxable income	196.216	237.468
Tax rate	25%	25%
Ordinary income tax	49.054	59.367
Total current income tax	49.054	59.367
Withholdings and balances in favor	(48.862)	(48.502)
Tax discount	(486)	(2.797)
(Balance in favor) balance payable	(294)	8.068

Determination of the income tax for equity CREE to December 31 is Conciliation of the effective income tax rate is included below: included below:

	2015	2014
Ordinary taxable liquid income	196.216	237.468
Plus special deductions:		
Deduction productive fixed assets	36.675	270.399
Donations	332	-
Minus non taxable income		
Nominal taxes	102	104
CREE taxable base	233.121	507.763
CREE minimum base	78.307	73.823
Tax rate	9%	9%
CREE income tax	20.981	45.698
CREE surcharge 5%	11.616	-
CREE self-withholdings	(35.060)	(31.471)
Advanced payment on surcharge previous year	(24.974)	-
(Balance in favor) balance payable	(27.437)	14.227

Charges to income statement for income taxes and income taxes for equity CREE were:

	2015	2014
Income tax	49.054	59.367
CREE income tax	20.981	45.698
CREE surcharge	11.616	-
Total	81.651	105.065

llam	201	5	2014	
ltem –	Value	Rate %	Value	Rate %
Tax on accounting profit	123.630	25	127.118	25
Plus non deductible expenses and taxable income:				
Provisions	6.198	1	2.413	1
Other non deductible expenses	28.632	6	26.563	5
Other income	45	0	26	0
_	34.875	7	29.002	6
Minus non taxable income and deductible expenses:				
Non taxable income recoveries	1.283	0	914	1
Deductible provisions	100	0	991	0
Higher tax depreciation expense	97.818	20	26.544	5
Adjustment for inflation inventory retirement	23	0	20	0
Deduction productive fixed assets	9.169	2	67.600	13
Other deducible expenses	292	0	438	0
Other non taxable income	766	0%	245	0%
	109.451	22%	96.752	19%
Current income tax	49.054	10%	59.367	12%
Capital gains tax	-	-	-	

Conciliation of the effective rate for income tax for equity CREE is included below:

Item	201	5	2014	
Itelli	Value	Rate %	Value	Rate %
Tax on accounting profit	44.507	9	45.762	9
Plus non deductible expenses and taxable income:				
Non deductible expenses	12.569	3	10.431	2
Taxable income	7	0	-	-
Minus non taxable income and deductible expenses:				
Non taxable income	738	0	417	0
Deductible expenses	35.364	7	10.078	2
CREE tax	20.981	5	45.698	9
CREE surcharge	11.616	2	0	0

On July 13, 2012, the Sectional Tax Directorate of Medellin, issued a special requisition concerning the tax return for the taxable year 2009. This requisition questioned the basis for the special deduction for productive fixed assets requested by ISAGEN regarding substitute works (Bucaramanga-Barrancabermeja road) and the transfer of the Galán-Chimitá polyduct) of the Sogamoso Hydroelectric Project, duly answered by ISAGEN, stating for each point the reasons for which it is deemed that the deduction is applicable and attaching the necessary documents in support thereof.

Notwithstanding the above, the DIAN (National Tax Administration) issued an official revised settlement on April 12, 2013, denying the arguments presented by ISAGEN. For the purpose of exhausting all proceedings foreseen at the administrative level, the company presented within legal terms, a motion for reconsideration of the official revised liquidation for the tax return of 2009. This motion denied by the tax administration for which reason the Company, within legal terms, filed a complaint against the above mentioned administrative acts (means of control) and seeking nullity thereof and the restitution of rights.

ISAGEN management and external tax consultants believe that there are solid defense arguments in support of the position adopted by the Company. The amount in discussion is \$3.589 and the fine for inaccuracy is \$5.743.

Income tax returns for the taxable years 2013 and 2014, have not yet become firm, and therefore may be subject to revision by national tax authorities.

In respect of the taxable year 2015, Company management believes that the amount accounted as tax provision suffices to cover any liabilities that may arise relating to this year. Income tax return for the year 2015 must be presented at the latest by April 12, 2016.

(3) Mainly corresponding to the provision to cover labor benefits as severance (The former regime that are recognized as post-employment benefits), seniority premium and worker variable compensation according to the following:

	2015	2014	2013
Severance pay			
Previous balance	3.625	2.756	2.888
Service cost	175	126	138
Interests cost	232	174	184
Actuarial losses	462	1.167	(343)
Year payments	(625)	(598)	(110)
Total severance pay	3.869	3.625	2.757
Long-term labor benefits			
Previous balance	12.727	11.149	11.353
Service cost	1.322	1.117	1.157
Interests cost	840	745	692
Actuarial losses	695	999	(907)
Year payments	(1.461)	(1.283)	(1.146)
Total long-term labor benefits	14.123	12.727	11.149
Other provisions	6.408	3.084	3.719
Total	24.400	19.436	17.625

Charges to income for these items were as follows:

#### Retroactive severance pay

Item	2015	2014	2013
Services cost	175	126	138
Interests cost	232	174	184

#### Long-term benefits

Itom	Sen	iority premiu	ım		5-years	
Item	2015	2014	2013	2015	2014	2013
Services cost	1.270	1.071	1.111	52	46	46
Interests cost	806	716	665	33	30	27

Charges to other comprehensive income for these items were as follows:

#### Retroactive severance pay

value of one energy point is \$172 \*

Item	2015	2014	2013
Actuarial losses	462	1.167	343

- (4) Includes, among others, provision to cover the contingency of losing the Nullity and Restitution of Rights proceedings against Municipality of Victoria, Caldas administrative acts regarding collection of royalty payments for exploitation of materials to be used in the construction of the Miel I plant. In the first instance ruling proffered on November 23, 2006, by the Administrative Court of Caldas, Company pleadings were denied. An appeal was filed before the Council of State. The estimated amount to be paid plus interests is \$294.
  - Likewise, provisions were established for joint liability in labor proceedings with Coopaneleros for \$536 (2014 \$1.758). Provisions of \$305 (2014 \$426) for electric power easements imposed in the Amoyá project and a provision to cover retroactive severance pay proceedings of \$978 (2014 \$1.111). Legal cost in the proceedings against Mundial de Seguros for \$660 ordered under the second instance ruling of this proceeding. Provision for Nullity Resolution No 2010-058 dated August 9, 2010, issued by the Municipal Treasury secretary of the Municipality of Tuta (Boyacá), concerning industry and commerce taxes for the taxable year 2008 in the amount of \$895.
- (5) The sum of \$802 (2014 \$756) corresponding to the provision to cover benefits awarded to clients under the loyalty program, consisting in awarding points for energy purchases that may be redeemed later through the use of technical services. Points are effective for a period of 2 years, but will become void if payments are not timely made. Company statistics show a high rate of use. For every 1.000 kWh of invoiced and timely paid power one (1) point is awarded, likewise, as an efficiency incentive for every 2 MVARh\* (reactive energy) charged in the invoice one (1) ISAGEN Energy Point is voided in the invoice for consumption. The current

- \* Amount expressed in Colombian pesos
- (6) Yearly projection of the non current portion of estimated liabilities is the following:

Expiry year	Value
2017	5.893
2018	5.893
2019	5.893
2020	5.893
2021 and subsequent	93.371
	116.943

# 18. Taxes, contributions and rates

The balance of taxes, contributions and rates to December 31 includes:

	2015	2014	2013
Withholdings	12.516	14.197	10.555
Contributions	3.378	8.548	9.797
Municipal taxes	879	295	890
Equity tax (*)	-	-	28.898
Total taxes, contributions and rates	16.773	23.040	50.140

(\*) The Company settled the equity tax based on the net assets (calculated in accordance with tax law) at January 1, 2011 at a rate of 4.8% plus a 25% surcharge. The taxes were filed in May 2011 and payment was made in eight equal installments in May and September of 2011, 2012, 2013 and 2014. The value recorded in the statement of comprehensive income corresponds to the actual net value of these future payment commitments, discounted with the Company's WACC.

# 19. Accounts payable

The balance of accounts payable includes:

	2015	2014	2013
Vendors (1)	254.985	193.741	125.735
Escrow accounts (2)	16.309	74.428	59.990
Creditors (3)	30.375	44.837	14.389
Resources received for management (4)	10.419	6.579	4.986
Total accounts payable	312.088	319.585	205.100
Minus: current portion	(298.148)	(309.484)	(140.224)
Non current portion (5)	13.940	10.101	64.876

(1) The balance of this account includes

	2015	2014	2013
Investment projects	-	72.652	50.171
Power purchases	148.052	65.266	24.192
Gas purchases	59.096	21.848	20.067
Charges for use and connection	20.818	17.668	17.706
Acquisition of gods and services	13.425	13.253	11.208
Acquisition of goods and services Sogamoso	10.184	-	-
FAZNI	1.067	1.355	1.120
SIC	1.428	1.030	609
Others	915	669	662
Total vendors	254.985	193.741	125.735

To December 31 bank guarantees were obtained to guarantee gas supply to Chevron Petroleum Company for USD3,1, payment of insured debt service to OPIC of USD14 and gas transportation by TGI for \$27.537 (2014 - \$19.867) (2013 -\$17.913).

For the purpose of ensuring compliance with Energy Exchange transactions, reconciliations, supplementary services, STN use charges, CND services and CRD; and, in general, any payments to be made to SIC Manager, as provided in Resolution CREG No.19 of 2006 and its amendments and Resolutions CREG 157 and 158 of 2011, bank guarantees have been obtained in favor of XM Compañía de Expertos de Mercados S.A. E.S.P. for \$115.000 (2014 - \$110.000) (2013 - \$75.000).

For purposes of compliance with Resolution CREG 061 of 2007 guarantees were secured to cover the reliability charge of USD 20,1 (2014 - USD 80,2) (2013 – UD 64,0) and guarantees for the environmental management plan in the construction of the transmission line of 116 KV of the Amoyá Project \$370 (2014 - \$370) (2013 - \$370).

2010 for \$4,998.

- (2) Corresponding to accounts payable for contractual withholdings made to contractors developing the construction of productive project as guarantee. The above withheld amounts will be returned when client satisfactorily receives the corresponding works. Also, from BIOMAX \$3.622 (2014 -\$3.622) (2013 - \$3.738) were received to guarantee supply of Jet A1 liquid fuel for Termocentro generation.
- (3) Includes, among others, combined material damages insurance policy for \$25.027 (2014-\$34.783), Civil Liability and Tort Liability insurance for \$349 (2014-\$336), contributions to pension funds for \$1.620 (2014-\$1.481), social security contributions for \$1.144 (2014-\$1.050) and parafiscal contributions \$985 (2014-\$886), transportation and cartage \$518 (2014-\$466).
  In 2014, account payable to the Nation as premium of the legal stability agreement executed in
- (4) Includes resources managed by the Company from the health solidarity fund for workers of \$1.334 (2014 \$1.245) (See note 8). The non reimbursable deposit of the Inter-American Development Bank (IBD) under the technical cooperation agreement to conduct the studies of the geothermal project of \$6.351 (2014 \$2.600). Also, a deposit by CELEC EP Ecuador in the agreement with ISAGEN for prefeasibility studies of the Binational Geothermal Project Tufiño Chiles Cerro Negro located in the border area between Colombia and Ecuador, in the Department of Nariño and the Province of Carchi in the amount of \$2.734 (2014-\$2.734).
- (5) The non current portion mainly includes \$1.234 (2014 \$1.145) (2013 \$3.738) of the health solidarity fund, deposits received for management: \$9.084 (2014 \$5.334) (2013 -\$3.816) and creditors \$3.622 (2014 -\$3.622) (2013 \$3.738). 2013 included contractual withholdings in amount of \$56.252

## 20. Other liabilities

The balance of other liabilities included:

	2015	2014	2013
Advances for energy sales (*)	26.487	28.697	42.774
Democratization collection	187	211	212
Prima legal stability contract (**)	1.819	-	57
Other (***)	300	224	476
Total other liabilities	28.793	29.132	43.519

- (\*) Advances received from clients for future deliveries of power. Main balances correspond to Distribuidora y Comercializadora de Energía \$8.320 (2014 \$932), Proeléctrica & Cía. S.C.A. E.S.P. 7.548 (2014 \$6.871), Generarco S.A.S. E.S.P. \$3.431 (2014 \$4.774) (2013 \$1.532), Ruitoque S.A. E.S.P. \$2.213 (2014 \$3.052) (2013 \$1.383), Colenergía S.A. E.S.P. \$538, Durman Colombia S.A.S \$453 (2014 \$472) y Compañía de Energía del Valle del Sibundoy \$206. 2013 including in addition: Corporación Eléctrica Nacional S.A. CORPOELEC S.A. \$15.370, Energéticos S.A. E.S.P. \$4.821, Empresas Municipales de Cali E.I.C.E. E.S.P. \$2.878, Proeléctrica & Cía. S.C.A. E.S.P. \$1.532 and GRUPO ICT II S.A.S. \$1.468.
- (\*\*) Principal and interests under the legal stability agreement executed with the Nation (Ministry of Mines and Energy)
- (\*\*\*) Includes accounts payable under the agreement signed by the Company to act as portfolio collector of public lighting charges \$163 (2014 \$80) (2013 \$144). Additionally, includes \$100 (2014 \$99) (2013 \$96) of yields and capital payable for resources collected from accounts receivable from the Energy Exchange and belonging to the Nation for reduction of capital and 37 (2014 \$37) (2013 \$36) of interests payable for contributions to the WESP agreement.

# 21. Income from regular activities

Income from regular activities to December 31 included:

	2015	2014
Energy sales under agreements (*)	2.013.793	1.865.895
Energy sales at Exchange	967.945	494.136
Gas sales	12.759	2.838
Technical services	8.523	8.689
Calderas substation compensation (**)	615	575
Reliability charge return (***)	(159.613)	(94.887)
Total operational income	2.844.022	2.277.246

\*) Energy sales under agreements comprise \$1.191.677 with regulated companies (2014 - \$1.058.235), with non regulated companies \$822.116 (2014 - \$800.606). In 2014 sales to Venezuela for \$7.054.

(\*\*) Corresponding to income from payments for use of the 115 kV substation, associated to Calderas plant, owned by ISAGEN and part of the Center-South Regional Transmission System whose operator is Empresas Públicas de Medellín E.S.P. as per agreement number 299990441287 executed between the parties, in accordance with CREG Resolutions -105 of 2009 and CREG - 026 of 2010.

At the end of the 2015 period, clients having more than 10% share in Company regular income were:

- Codensa S.A. E.S.P., 15% for an amount of \$179.922
- Empresas Públicas de Medellín, 19% for an amount of \$218.575
- Electrificadora del Caribe S.A. E.S.P., 26% for an amount of \$301.375

2014 customers with greater than 10% in the operating income of the company were as follows:

- Codensa S.A. E.S.P. 11.1% con un valor de \$204.338.
- Electrificadora del caribe S.A. E.S.P. 14.68% con un valor de \$270.239.
- (\*\*\*) At the end of 2015, a modification was made to the accounting procedure of reliability charges return and AGC commercial responsibility costs AGC. The first was accounted as cost whereas the second was registered net of AGC service provision income according to liquidations made by market agent. It was observed that presenting reliability charges returns as a lower value of income and registering the commercial responsibility charge as costs more accurately reflect the nature of such transactions. Consequently, the figures for the year 2014 have been re-expressed for purposes of comparability. The amounts of these items for each year are presented below:

	2015	2014
Reliability charge return	(159.613)	(94.887)
AGC commercial responsibility	65.361	42.513
Total effect	94.252	52.374

This reclassification does not affect operating profits nor net profits.

# 22. Sales and operation costs

Sales and operation costs to December 31 included:

	2015	2014
Energy purchases	621.428	684.388
STN use and connection charges	217.378	198.067
Fuel (*)	309.039	254.763
Depreciation (**)	233.268	148.813
Personnel expenses	85.188	74.346
Maintenance and repairs	57.162	39.725
Transfer Law 99/93	50.185	39.732
Environmental management plan	29.713	14.128
Insurance	26.106	17.114
Security	16.602	14.330
Fazni contribution	15.564	12.096
Transportation and freights	15.061	14.665
Community relations	13.825	9.747
CND, CRD'S and SIC	13.294	9.513
Client Service	10.931	10.443
Cleaning and cafeteria	7.906	6.986
Professional fees	7.085	4.301
Research studies	4.865	1.528
Leases	4.670	3.443
Taxes and contributions	3.771	2.744
Chemical products	3.040	606
Readings	1.627	179
Publicity and advertising (***)	290	318
Studies and projects	-	1.009
Other	4.595	3.386
Total sales and operation costs	1.752.593	1.566.370

- (\*) Fuel purchases were higher due to higher thermal generation on account of the low hydrology occurring during the year which gave rise to market conditions favoring higher dispatch for Termocentro.
- (\*\*) The increase in depreciation is mainly due to the commencement of operation of the Sogamoso plant.
- (\*\*\*) Advertising breakdown is included below:

	2015	2014
Relationship Marketing Program with commercial clients	269	256
Advertising panels and signal boards	19	28
Update of corporate visual identity	-	19
Editorial content publication	-	15
Design and installation of decorative vinyls	2	-
	290	318

### 23. Other income

Other income to December 31 included:

	2015	2014
Recoveries (1)	7.732	8.008
Provisions (2)	4.942	1.280
Other <sup>(3)</sup>	4.447	336
Fines and penalties (4)	3.921	34
Adjustment of commercial operation (5)	3.605	1.001
Surplus	1.154	434
Other services	813	928
Indemnifications	108	45
Worker sustenance	103	76
Commissions of collection	68	50
Profit from assets sales	57	-
Procurement sheets sales	34	20
Total other income	26.984	12.212

- (1) Mainly including recoveries for incapacities \$851 (2014 \$2.765), recovery of the contribution to SSPD for the year 2011 of \$1.479, recovery of the income provision for 2014 \$3.245, recovery of debt guarantees \$ 174, recovery of portfolio provision Britilana \$38 and Sicolsa \$57, recovery of expense billing \$1.634. In 2014, recovery of impairment of the account receivable from EMCALI for \$1.903 was recovered.
- (2) Mainly including recovery of administrative contingencies provision for Arauca Municipality of \$3.652 due to public lighting, provision for the easement imposition proceeding with Yamile Criollo for \$742 and labor contingencies for \$341.
- (3) Mainly including the extraordinary income from the material damages policy from the new negotiation \$3.865.
- (4) Corresponding to a premium charged to Celsia S.A "E.S.P" for failure to comply with the stipulations under the Secondary Market Reliability Charge agreement of \$3.920.
- (5) Mainly from adjustments to sales revenue from energy sales of \$434 and adjustment to income from Hermes and JBIC credit premiums of \$3.143.

# 24. Administrative Expenses

Administrative expenses to December 31 included:

	2015	2014
Personnel expenses (1)	50.080	45.838
Taxes and contributions (2)	45.583	16.737
Leases	11.987	11.928
Professional fees (3)	11.936	13.478
Maintenance and repairs	7.870	6.322
Depreciation and amortization	7.825	8.234
Information processing (4)	2.981	2.696
Public utilities	2.188	2.174
Communications and transportation	2.165	1.949
Legal expenses	2.100	339
Cleaning and cafeteria	1.908	1.915
Advertising (5)	1.890	1.834
Security	1.479	1.467
Insurance	663	668
Materials and supplies	179	112
Other general expenses	2.701	2.910
Total administrative expenses	153.535	118.601

- (1) Includes an adjustment to long-term and post-employment benefits liabilities such as: seniority premium, 5-years, and retroactive severance pay. These items are recognized using the projected credit unit method and the interest rate of long-term Colombian government bonds. For more details see Note 17.
- (2) Tax and contribution expense includes:

	2015	2014
Wealth Tax	29.983	-
Financial movements tax	7.730	9.551
Utilities Superintendence Contribution	4.401	2.732
Inspection fee Comptroller General's Office	2.470	3.110
CREG contribution	941	940
Real estate tax	36	19
Industry and commerce tax	20	379
Rates and Tolls	2	1
Stamp tax	-	3
	45.583	16.737

- (3) Mainly including professional fees for financial consulting services \$1.020 (2014 \$1.925), administrative consulting \$3.410 (2014 \$3.894), legal consulting \$1.302 (2014 \$1.727), audits \$736 (2014 \$833), brokerage fees \$1.281 (2014 \$1.251) and help desk services \$2.088 (2014 \$2.006).
- (4) Mainly including expenses for comprehensive consulting on information management and insurance brokerage of \$1.205, virtual media communications consulting of \$456, design of corporate publications to improve contracting processes for \$382, subscription to knowledge bases and consulting services for information technology and systems for \$274, Consultoría Análisis Integral consulting services on TIC needs in NSE SOA for \$134.
- (5) Advertising expense breakdown is included below:

	2015	2014
Institutional and community sponsoring	1.605	1.144
Preparation of accessories with logotype	119	117
Media plan	82	483
Memberships	52	-
Equipment lease for events and assemblies	-	45
Production of communication materials	-	5
Photographic coverage	-	3
Other	32	37
	1.890	1.834

# 25. Other expenses

Other expenses to December 31 included:

	2015	2014
Provisions (1)	21.874	4.263
Operational, commercial an labor expenses from previous periods $\sp(2)$	4.526	3.223
Bank commissions and other bank expenses	2.436	3.105
Employee loan interests	1.272	1.847
Loss from fixed assets write-off	552	582
Trust fees	58	60
Other (3)	1.256	6.269
Total other expenses	31.974	19.349

- (1) Mainly including the provision for exchange debtors XM Expertos \$7.157, inventory provision \$\$ 9,211 (of which correspond to inventory valuation), client loyalty program points provision \$ 624 (2014 - \$481), provision for contingencies and litigation \$5.102 (2014 - \$2.789) comprising severance pay retroactivity claims \$7 (2014 - \$2.032), administrative complaints \$5.095. In 2014, legal costs in the proceedings against Mundial de Seguros of \$660, Municipality of Tuta of \$97 and solidarity \$834.
- (2) Mainly including the adjustment to worker labor benefits \$1.957 (2014-\$368), and lower estimated amounts of charges for use \$2.086 (2014- \$1.724)
- (3) In 2014, extraordinary expenses of \$5.656 were incurred, arising from the economic compensation to Ecopetrol, as a result of Cusiana and Cupiagua gas supply negotiations to ensure fuel for reliability charges and Termocentro generation until November 2015, compensated by an increase in the supply capacity of these fields and a reduction in gas prices.

### 26. Financial Income

Financial income to December 31 included:

	2015	2014
Interests and yields (1)	18.178	20.484
Exchange difference	57.126	6.235
Profit from investment valuation (2)	1.541	1.175
Total financial income	76.845	27.894

- (1) Mainly including bank deposit yields of \$12.294 (2014 \$13.869), pension fund yields of \$1.439 (2014 2.045) and interests on loans to employees and former employees to purchase housing and vehicles.
- (2) Corresponding to the profit derived from the monthly adjustment of investments in debt securities to market prices.

# 27. Financial expenses

Financial expenses to December 31 included:

	2015	2014
Exchange difference	124.008	53.323
Interests cost (1)	383.750	40.724
Pension and labor benefits interests (2)	7.011	9.054
Tax obligations interests (3)	195	1.459
Total financial expenses	514.964	104.560

- (1) This increase in mainly due to the fact that as of December 20, 2014, the Sogamoso Hydroelectric Plant commenced operation, date on which interest costs were capitalized.
- (2) Pension and labor benefit interests estimated according to IAS 19 methodology were as follows:

ltem	2015	2014
Pension plan	3.804	5.380
Health plan	1.953	2.555
Seniority premium	807	716
Retroactive severance pay	232	174
Education subsidy	136	133
Contributions	46	65
5-years premium	33	31
	7.011	9.054

<sup>(3)</sup> Amount corresponding to debt interests of equity taxes which last payment was made in September and the premium for legal stability, estimated at the effective tax rate.

# 28. Earnings per basic and diluted shares

#### Earnings per basic and diluted shares

Earnings per basic share are estimated by dividing the profits attributable to Company shareholders by the weighted average of common shares in circulation during the year, excluding common shares acquired by the Company and kept as treasury shares (See Note 13).

Earnings per diluted share are estimated by adjusting the average of common shares in circulation to simulate the conversion of all potentially dilutable common shares. The Company des not have any potentially dilutable shares.

	2015	2014	2013
Earnings attributable to Company shareholders	297.381	358.417	370.387
Weighted average of common shares in circulation	2.726.072.000	2.726.072.000	2.726.072.000
Earnings per basic and diluted share $(\hat{\ })$	109,09	131,48	135,87

(\*) Amount expressed in Colombian pesos

# 29. Dividends per share

Dividends paid in 2015 and in 2014 were \$ 481.315 (\$176,56 (\*) per share) and \$217.267 (\$79,70 (\*) per share) respectively.

With respect to the current year, Management does not anticipate paying dividends in consideration of the results presented and the level of legal reserves that should be

(\*) Amount expressed in Colombian pesos

# 30. Transactions and balances between related parties

	Shareholder (*)		Shareholder (*)		Board of
	EPM	National Government	Management	Directors	
2015					
Balance sheet balances					
Accounts receivable	6.942	-	618	-	
Obligations	6	100	-	-	
Transactions related to profit & loss					
Energy sales	218.575	-	-	-	
Gas sales	9.362	-	-	-	
Use of Local Distribution System	18.684	-	-	-	
Direct inputs combustion gas	8.729	-	-	-	
Discounts	1	-	-	-	
Interests	-	195	-	-	
Power, water and telephone utilities	109	-	-	-	
Professional fees	-	-	-	872	
Salaries and labor benefits	-	-	5.118	-	
Commissions	17	-	-	-	
Other transactions					
Dividends	63.267	277.286	26	-	

	Shareholder (*)			Shareholder (*)		D 1.7
	EPM	National Government	Management	Board of Directors		
2014						
Balance sheet balances						
Accounts receivable	-	-	801	-		
Obligations	5	5.097	-	-		
Transactions related to profit & loss						
Energy sales	56.317	-	-	-		
Gas sales	844	-	-	-		
Use of Local Distribution System	17.774	-	-	-		
Interests	-	444	-	-		
Power, water and telephone utilities	100	-	-	-		
Professional fees	-	-	-	656		
Salaries and labor benefits	-	-	5.428	-		
Commissions	23	-	-	-		
Other transactions						
Dividends	28.131	125.168	10	-		

- (\*) ISAGEN is based on the definition of related party set out in the International Accounting Standard No. 24 or in lieu thereof, to establish its affiliates or related parties. For this purpose, ISAGEN understands by affiliates or related parties to:
  - Shareholders owning more than 10% of the shares of ISAGEN.
  - Companies in which any shareholder who owns more than 10% of the shares of ISAGEN, have corporate control.
  - Companies related to the shareholders holding more than 10% of the shares of ISAGEN.
  - Members of the Board, Board Committees, General Manager, members of senior management as well as the companies where these directly or indirectly exert corporate control.
  - People who keep kinship within the fourth degree of consanguinity, affinity two civil first of any
    of the above.

Operations and relationships with ISAGEN's affiliated or economic related parties, for the purchase and sale of goods and services will be made in accordance with the policy of transactions with affiliates and related parties approved by the General Assembly of Shareholders and tending the following guidelines in mind:

- Prices and conditions shall be the market;
- The terms and conditions shall be that the company usually use with unrelated third parties,
- o It must implement trade criteria approved by the Board.
- They must implement mechanisms for risk management (insurance policies or similar) and relationships with suppliers that the company usually use with unrelated third parties.
- Must be strictly applied the specific internal external regulation (e.g. industry) e (e.g. status of staff) to apply according to the type of operation.

# 31. Other comprehensive income, net of taxes

Other comprehensive income breakdown is as follows:

Other comprehensive income	2015	2014	2013
Items not reclassified in profit & loss:			
Actuarial (losses) gains from defined benefits plan	(1.941)	(319)	35.057
Deferred tax on items not reclassified in profit & loss $(*)$	660	(137)	(11.569)
Total items not reclassified in profit & loss	(1.281)	(456)	23.488
Other comprehensive income for the period, net of taxes	(1.281)	(456)	23.488

Movement of other comprehensive income, net of taxes is the following:

	2015	2014	2013
Previous balance	15.965	16.421	(7.067)
Actuarial (loss) gain on labor benefits	(1.941)	(319)	35.057
Deferred tax effect	660	(137)	(11.569)
Final balance	14.684	15.965	16.421

### 32. Donations

In 2015 donations were made in the amount of \$ 332, as evidenced in Board of Directors' meeting minutes # 254 of January 30, 2015 and # 258 of May 29, 2015 to the initiative "unidos por los bosques" (united for the forests) for \$212 and \$120 to the corporation "encuentro de dirigentes" (leaders encounter), respectively.

In 2015, no donations in kind were made; in 2014, the Company delivered to Asociación Computadores para Educar, laptop and desk computers valuated at \$70 to promote the use of information and communications technology as educational tools.

## 33. Other disclosures

The Company, to December 31, 2015 and 2014, had the following events that might give rise to assets:

- Complaint against Grodco in the amount of \$63.720 (2014 \$63.720) requesting payment of damages arising from problems under contract No. 46/3851, construction of the substitute road Bucaramanga Barrancabermeja, in the sector Capitancitos Puente la Paz, under the Sogamoso Hydroelectric Project.
- Complaint against the Municipality of Caloto for industry and commerce taxes in the amount of \$4.572 (2014 \$4.371).
- Claim for damages from possession and liquidation of Electrochocó to the Ministry of Mines and Energy and the Residential Public Utilities Superintendence in the amount of \$17.968 (2014 - \$17.178).
- Complaint against the Nation (Residential Public Utilities Superintendence) for damages in the liquidation of Empresas Públicas de Caucasia in the amount of \$3.495 (2014 - \$3.341).

- Complaint against Megaproyectos for damages arising from the early termination of Contract No. 46/2629 in the amount of \$5.005 (2014 - \$4.784).
- Complaint against the Municipality of Cimitarra for industry and commerce tax payments in the amount of \$9.306 (2014 \$8.897).
- Complaint against Residential Public Utilities Superintendence resolutions by way of which energy and gas contributions for 2011 and 2013 were established, in the amount of \$4.102 (2014 - \$2.161).
- Complaint against Liberty Seguros and AXXA Colpatria in the amount of \$8.746, arbitral proceedings in the dispute on construction of the substitute road Bucaramanga – Barrancabermeja, Capitancitos – Puente la Paz.
- Claim to Mundial de Seguros seeking indemnification of damages arising from the accident at Termocentro Plant in the amount of \$15.284 (2014 - \$9.310).
- Lawsuit against Transportadora de Gas Internacional (TGI) by \$ 91,556 which seeks a declaration of the annulment of the contract ESTF-025-G2392008 declaration and TGI order to return all value in respect of that contract paid ISAGEN, updated to current value from the payment date to the date you become final arbitration award.

La Company had the following events that might generate liabilities:

- Long-term energy sales negotiations for an approximate value of \$6.144.116 (2014 - \$6.524.765). It is estimated that the Company will not endure any losses in this regard.
- The Company has made comments to the invoices issued by TGI S.A. associated to the gas transportation agreement for \$19.057 (2014 \$15.054).
- Complaint from Producciones Punch in the amount of \$8.896 (2014 \$8.504) seeking damages for power rationing.
- O Impleader in XM Expertos en Mercados S.A. E.S.P 128 legal proceedings in which ISAGEN has been brought in, filed by several market agents against capacity charges settlement from 2001 to 2006. The estimated amount of pleadings is \$167.531 (2014 - \$167.514). The methodology

used by the Company to arrive at this estimate was multiplying the total amount plead in the complaint by the proportion of the capacity charge received by ISAGEN relating to the total compensation for system capacity charges after discounting the compensation received by the plaintiff agent.

Company management and its consultants believe the possibility of loss is low given that there are strong arguments in defense of the impleaders. Additionally, in the hypothetical case the complaint is successful, an active contingency may arise for the Company consisting in the possibility of recovering non settled portion of capacity charges to all hydraulic generators.

The increase as compared to 2014, is the result of including and valuating new processes.

- O Complaint from the Ministry of Mines and Energy relating to Resolution No. 180436 of April 10, 2006, by way of which payment of fees in the Urrá project was sought in the amount of \$11.476 (2014 - \$10.971) previously delivered in the capital reduction process of ISAGEN.
- Complaint filed by the Municipality of Tuta for industry and commerce taxes in the amount of \$6.963 (2014 \$5.609).
- Complaint filed by the Municipality of Arauca for public lighting in the amount of \$3.402(2014 \$3.898).
- O Complaint filed by Esgamo Ingenieros Constructores for civil and administrative liability of ANLA and ISAGEN from the direct and immediate effect of the Sogamoso Hydroelectric Project, as continuing with the mining exploitation under concession contract No. AIG-091 became impossible for defendants. Pleadings include payment of material damages and lost profits in the amount of \$25.808 (2014 - \$24.918).
- Complaint filed by Dioconda Poveda for damages arising from the easement established to carry energy to the Amoyá Project for \$5.344 (2014 - \$5.109).
- Complaint filed by Reinaldo Oliverio Vega for damages caused to plaintiff in his capacity as possessor of land located on the islands of the

- Sogamoso river dedicated to agricultural production, flooded by the Sogamoso river as a direct consequence of Sogamoso Hydroelectric plant construction in the amount of \$3.925 (2014 \$3.752).
- O Complaint filed by Alfonso Suárez Pinto for damages caused to plaintiffs, in their capacity as possessors of land located on the islands of the Sogamoso river, as a direct consequence of Sogamoso river floods caused by artificial deviations of the river to build the Sogamoso dam in the amount of \$1.199 (2014 \$1.199).
- O Complaint filed by the Municipality of Nobsa in the amount of \$7.525 (2014 \$4.260) for industry and commerce taxes in 2011 on energy marketing according to Resolution 2014-002 of October 14, 2014.
- Complaint filed by the Municipality of Yumbo in the amount of \$3.571 (2014 -\$5.313) for industry and commerce taxes for the years 2006, 2007, 2009 and 2010.
- Complaint filed by Grodco in the amount of \$46.760 seeking damages for problems under contract No. 46/3851, for the construction of the substitute road Bucaramanga – Barrancabermeja, in the sector of Capitancitos – Puente la Paz, under the Sogamoso Hydroelectric Project.
- Complaint filed by the Municipality of Guachené in the amount of \$810 (2014-\$774) for industry and commerce taxes in the years 2007 to 2011, on energy marketing.
- Complaint filed by Megaproyectos in the amount of \$3.463(2014-\$2.878) seeking damages arising from the early termination of Isagen Contract No. 46/2629.
- Complaint filed by Corporación Autónoma Regional, to defend the Bucaramanga plateau in the amount of \$ 7.345, declaration of nullity of Resolution No. 000871, for the forest exploitation charge estimated for the Sogamoso Hydroelectric Project
- O Complaint filed by Enertolima in the amount of \$17.956, seeking ISAGEN be declared liable for the damages caused in performance of the energy connection agreement between ISAGEN and ENERTOLIMA, for the transportation of power generated by Amoyá La Esperanza Hydroelectric plant.

On July 13, 2012, the Sectional Tax Directorate of Medellin, issued a special requisition regarding the income tax return for the taxable year 2009. This requisition questions the basis for the special deduction in productive fixed assets requested by ISAGEN concerning substitute works (Bucaramanga- Barrancabermeja road and transfer of the Galán-Chimitá polyduct) under the Sogamoso Hydroelectric Project, which was duly answered by ISAGEN, arguing the reasons for which such deduction is believed applicable and submitted the necessary supporting documents therefor.

Notwithstanding the above, DIAN issued and official revised settlement on April 12, 2013 denying the arguments presented by ISAGEN. For the purpose of exhausting all proceedings foreseen at the administrative level, the company presented within legal terms, a motion for reconsideration of the official revised liquidation for the tax return of 2009. This motion denied by the tax administration for which reason the Company, within legal terms, filed a complaint against the above mentioned administrative acts (means of control) and seeking nullity thereof and the restitution of rights.

ISAGEN and external tax consultants believe that there are solid defense arguments to support the position assumed by the Company. The amount under discussion is \$3.589 and the penalty for inaccuracy is \$5.743.

- On August 4, 2014, Claudia Patricia Ortiz G., filed a class action with other persons against ISAGEN and ANLA before the Administrative Court of Santander, for alleged damages caused in the construction of the Sogamoso plant. ISAGEN, within the appropriate legal terms, submitted its answer on October 7, 2014.
- The complaint seeks to guarantee the collective rights of Plant neighboring communities to a healthy environment, to ecological balance in the area of the dam, to the rational use and management of natural resources, to safety and the prevention of technically foreseeable disasters, that may affect the communities downstream of the dam.

Management and attorneys believe that said class action will not be successful given that the Company applies the highest standards of quality and social responsibility to ensure compliance with its obligations without affecting natural resources and the communities in the areas of influence of its projects.

At year closing, this proceeding continued in first instance.

O Complaint filed against official statement filed un No. 936 dated October 8, 2014 and the resolution filed under No 151 dated May 6, 2015, both administrative acts proffered by the Special Administrative Unit of Pension and Parafiscal Contributions to Social Protection Management (UGPP) By way of these administrative actions the UGGP ordered payment by ISAGEN, allegedly for default and inaccuracies in the self settlement and payment of contributions to the social security system in the period from January to December 2012 for an amount of \$937.

# 34. Subsequent events

The Nation, on January 13, 2016, carried out an auction to sell its interest (57,6%) as controlling company of ISAGEN, all its shares were awarded to BRE Colombia Investment L.P. of the Canadian investment fund Brookfield Asset Management. The sales became effective upon payment and account entry in DECEVAL on January 22, 2016. This event for ISAGEN implies the obligation to effect prepayment of the OPIC secured loan within a term of 90 days for an amount of \$367.050 and assume the costs of terminating the hedging operation associated therewith relating to interest rates amounting to USD 21,700, on January 22, 2016.

La Company has different options to address this impact, one of which is changing the line of current operations, such modification does not imply undoing the hedging operation and assuming the above-mentioned termination costs This alternative is being negotiated, if an agreement is not reached, the current credit may be replaced with other financing sources already approved in the local and in the international markets.

# Accronym reference table

ational Environmental License Authority
ational Dispatch Center
egional Dispatch Center
nergy and Gas Regulating Commission
ffective Annual Rate
xport Credit Agency
inancial Support Fund to Provide Energy to Non interconnected Areas
onsumer Price Index
verseas Private Investment Corporation
rade Exchange System
ational Transmission System
nergy Mining Planning Unit
nited States Dollar
i

# STATUTORY AUDITOR'S REPORT

#### Deloitte.

Deloitte & Touche Ltda. Ed. Corficolombiana Calle 16 Sur No. 43A - 49 P. 9 y 10 A.A. 404 Nit: 860.005.813-4 Medellín

Tel: +57(4) 313 88 99 Fax: +57(4) 313 93 43

#### STATUTORY AUDITOR'S REPORT

To the stockholders of ISAGEN S.A. E.S.P.:

I have audited the financial statements of ISAGEN S.A. E.S.P., which consist of the Statement of Financial Position as of December 31, 2015, 2014 and 2013 and the profit and loss and other comprehensive income statements, statements of changes in the equity and of cash flow for the years ended on December 31, 2015 and 2014, a summary of the significant accounting policies as well as other explanatory notes.

Management is responsible for the preparation and accurate presentation of these financial statements in accordance International Financial Reporting Standards. This responsibility includes: designing, implementing and maintaining an internal control system adequate for the preparation and presentation of financial statements free from material misstatements, whether due to fraud or error; selecting and applying appropriate accounting policies, as well as making accounting estimates that are reasonable in the circumstances.

My responsibility is to express an opinion on these financial statements based on my audit. I obtained the information necessary to comply with my duties and carry out my work in accordance with International Auditing Standards. Such standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit of financial statements includes examining, on a selective basis, the evidence supporting the amounts and disclosures in the financial statements. The audit procedures selected depend on the auditor's professional judgment, including the assessment of the risk of material misstatements in the financial statements. In making that risk assessment, the auditor considers the internal control of the Company that is relevant to the preparation and reasonable presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes assessing the accounting principles used and significant estimates made by Management, as well as evaluating the overall financial statement presentation. I believe that my audit provides me a reasonable basis to express my opinion.

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Deloitte se refiere a una o más de las firmas miembros de Deloitte Touche Tohmatsu Limitled, una compañía privada del Reino Unido limitada por garantia, y su red de firmas miembro, cada una como una entidad única e independiente y legalmente separada. Una descripción detailada de la estructura legal de Deloitte Touche Tohmatsu Limitled y sus firmas miembro pueden verse en el sitú oveb www.deloitte.com/about.

Deloitte Touche Tohmatsu Limited es una compañía privada limitada por garantía constituída en Inglaterra de Gales bajo el número 07271800, y su domicilio registrado: Hill House, 1 Little New Street, London, EC4A 3TR, Reino Unido\* In my opinion, the financial statements referred to above, taken from the accounting books, reasonably present, in all material respects, the financial situation of ISAGEN S.A. E.S.P. as of December 31, 2015, 2014 and 2013, the results of its operations and the cash flows for the years ended on December 31, 2015 and 2014, in conformity with International Financial Reporting Standards

As part of my Audit of the financial statements as of December 31, 2015, 2014 and 2013, I also audited the adjustments indicated in note 21 to the financial statements in respect to the accounting for the refunds of the reliability charge and the costs for commercial liability of AGC. In my opinion such adjustments are appropriate and have been correctly applied.

Further, based on the scope of my audits, I report that the Company has kept its accounting books in accordance with legal rules and accounting technique; the operations recorded in the accounting books and management actions conform to the bylaws and to the decisions of the General Stockholders' Meeting and the Board of Directors; the correspondence, account vouchers and books of minutes and the stockholder ledger are duly kept and preserved; the management report from the administrators is duly in conformity with the basic financial statements and the Company is not in default for contributions to the Integral Social Security System, and the mechanisms for money laundering prevention and control have been implemented in accordance with the provisions of External Circular No. 60 of 2008 from the Financial Superintendency of Colombia. My evaluation of internal control, conducted for the purpose of establishing the scope of my audit tests, did not make evident that the Corporation had failed to follow adequate internal control and preservation and custody measures for its assets and those of third parties that are in its possession.

JORGE ENRIQUE MÚNERA DURANGO

Statutory Auditor Professional Card 25295-T

Designated by Deloitte & Touche Ltda.

February 19, 2016.

## COMPANY'S LEGAL REPRESENTATIVE AND ACCOUNTANT CERTIFICATION

February 19, 2016

### To ISAGEN SA E.S.P. shareholders

As the legal representative and accountant of ISAGEN S.A. E.S.P, we certify that:

- 1. The Company's financial statements as of December 31, 2015 and 2014 have been faithfully taken from the accounting books. Before disclosing them to you and third parties, we have made the following verifications:
  - a) All assets and liabilities included in the Company's financial statements as at December 31, 2015 and 2014 exist. All transactions included in these statements were made during the years that terminated on the aforementioned dates.
  - b) All of the Company's economic activities that took place in the years that ended on December 31, 2015 and 2014 have been recorded in these financial statements.
  - c) Assets represent likely future economic benefits (rights). Liabilities represent likely future economic losses (obligations) acquired or assumed by the Company as at December 31, 2015 and 2014.
  - d) All elements have been included with their proper values according to the accounting principles generally accepted in Colombia.

- e) All economic activities that affect the Company have been properly classified, described and disclosed in the financial statements.
- f) adequate systems of regulation and control over financial reporting were established and maintained
- g) In order to ensure that financial information is presented properly, control procedures and disclosure were implemented properly.
- 2. The financial statements and other relevant public reports do not contain flaws, inaccuracies or errors that obscure the true nature of the Company's assets, liabilities or operations.

ORIGINAL DOCUMENT SIGNED

**Luis Fernando Rico Pinzón** Legal Representative ORIGINAL DOCUMENT SIGNED

Elvia Luz Restrepo Saldarriaga Accountant Professional License No. 37982-T

# DECLARATION OF THE GLOBAL COMPACT NETWORK IN COLOMBIA REGARDING ISAGEN'S COMPLIANCE WITH THESE PRINCIPLES



NIT: 900.327.192-5

Bogotá, D.C. March 8, 2015

Mr. LUIS FERNANDO RICO PINZÓN CEO ISAGEN S.A. E.S.P. Medellin

Below, the Global Compact Network Colombia presents its view resulting from reading and analyzing ISAGEN S.A. E.S.P.'s 2015 Comprehensive Sustainable Management Report in line with the advanced COP criteria. Advanced COP is a policy for reporting progress on adoption of and commitment to the following themes assessed by twenty one criteria:

- 1. Implement the 10 principles in strategies and operations
- 2. Strong human rights management policies and procedures
- 3. Strong workforce management policies and procedures
- 4. Strong environmental management policies and procedures
- 5. Strong anti-corruption management policies and procedures
- 6. Take actions to support the widest reaching UN objectives and issues
- 7. Corporate Sustainability Leadership and Governance

Report content demonstrates 99% progress according to the methodology for analyzing advanced COP criteria. The instrument used to asses indicators and the thematic assessment document are attached.

The Global Compact Network Colombia makes honorable mention of ISAGEN S.A. E.S.P. for its commitment to and management in line with Global Compact principles and objectives in its operations and with its stakeholders.

Sincerely.

Mauricio López González Managing Director

Calle 93 N° 13 24 Ofic. 204 Teléfonos (57-1) 384 8220 - 616 1358 - 616 1427 - Bogotá Colombia www.pactoalobal-colombia.org

info@pactoglobal-colombia.org

### EXTERNAL VERIFICATION



### INDEPENDENT REVIEW REPORT 2015 Management Report ISAGEN S.A. E.S.P.

This report has been prepared for the exclusive use of ISAGEN S.A. E.S.P.

We have examined the contents of the ISAGEN S.A. E.S.P. 2015 Management Report following the guidelines set forth in the Global Reporting Initiative Sustainability Reporting Guidelines (GRI) version G4, the AA1000AS:2008 Sustainability Assurance Standard, the ISAE 3000:2013 Assurance Engagements Other than Audits or Reviews of Historical Financial Information and the sustainability report assurance procedures defined by the Colombian Institute of Technical Standards and Certification (ICONTEC).

The preparation, content and self-declaration of the ESSENTIAL level for the 2015 Management Report, is the responsibility of the company, ISAGEN S.A. E.S.P., which is also responsible for defining, adapting and maintaining the management and internal control systems from which the information is obtained.

We are responsible for providing an independent report based on the processes applied in our limited review. This was planned and carried out according to the ICONTEC Sustainability Report Assurance Service protocol, which is based on GRI quidelines.

The scope of the assurance engagement was developed according to that agreed with ICONTEC. This includes the certification of a sampling of social responsibility activities and a review of GRI, version G4 indicators that demonstrate sustainability compliance over the January 01, 2015 to December 31, 2015 period.

We have reviewed and verified the information in the 2015 Management Report, which allows us to provide an opinion about the nature and the scope of compliance with the organization's transparency principles and a conclusion about the reliability of their performance indicators.

The review consisted of collecting evidence and included interviews to confirm information about various company processes. Said interviews were held with those responsible for the management approach and who participated in preparing the 2015 Management Report. We focused on the reliability of the information.

The verification was conducted on the days between March 9 and March 17 of 2016 in Medellín.

Below we describe the analytical procedures and tests used to review each sampling to reach our conclusions:

Reading and review of the 2015 Management Report completed to evaluate the
activities of ISAGEN S.A. E.S.P. with and in consideration of the stakeholders,



and to understand the scope, relevance and integrity of the information included therein, as well as the company's understanding of the stakeholders' requirements.

- Verification plan development was sent to the company on March 4, 2016.
   Changes and modifications were made to this document in accordance with the availability of those interviewed.
- Report content was analyzed to determine "Compliance" with the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI), version GR4.
- Meetings with personnel responsible for the content of the Report to learn the management approach applied, and to obtain the necessary information for the external assurance. Nineteen interviews were held with the teams of each one of the processes responsible for the activities, which were selected in our assurance exercise carried out on March 9, 10, 11, 14, 15, 16 and 17 of 2016.
- Analysis of the Management Report design process and the data collection and validation processes, as well as the review of information relative to the management approach applied to disclosures, carried out on March 9, 2016.
- Confirmation from a sampling of the qualitative and quantitative information of the indicators included in the 2015 Management Report and confirmation of the indicators and report contents correspond with those recommended by said standard. Said confirmation included 34 indicators of the general standard disclosures and 49 indicators of the specific standard disclosures in the following categories: Economics: G4-EC1, G4-EC2, G4-EC5, G4-EC6, G4-EC7; Environmental: G4-EN3, G4-EN4, G4-EN4, G4-EN5, G4-EN8, G4-EN11, G4-EN12, G4-EN13, G4-LA13, G4-LA14, G4-LA2, G4-LA3, G4-LA5, G4-LA6, G4-LA9, G4-LA11, G4-LA12, G4-LA13, G4-LA14, G4-LA15, G4-LA16, G4-HR1, G4-HR2, G4-HR3, G4-HR5, G4-HR7, G4-HR8, G4-HR9, G4-HR10, G4-S01, G4-S02, G4-S03, G4-S04, G4-S05, G4-S06, G4-S07, G4-S010, G4-PR1, G4-PR2, G4-PR5, G4-PR7, G4-PR9, and 6 indicators of the sector disclosures: EU1. EU2. EU11. EU18. EU22 and EU30.
- None of the relevant information provided by the company that we analyzed contradicted the contents of the Report.
- On March 17, 2016, meetings were held with the following stakeholder groups: ISAGEN S.A. E.S.P. suppliers and collaborators were interviewed in focus groups.



### Conclusion:

As a result of our limited review we conclude that the ISAGEN S.A. E.S.P. 2015 Management Report was prepared, in all significant aspects, in accordance with the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI), version G4. It complies with document creation principles and is accurate according to the procedures followed. Additionally, it complies with the provisions established in AA1000AS:2008 Sustainability Assurance Standard and the ISAE 3000:2013 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. There is no information that would lead us to believe that the aspects reviewed, as described herein, contained significant errors.

Application of the principles of content and quality is demonstrated throughout the report, demonstrating timely and balanced information, challenges and achievements. Nevertheless, it is important that more emphasis be made on application of the principles of content in clarity and precision.

The scope of a limited review is substantially less than an audit. Therefore, we will not provide an audit opinion about the 2015 Management Report.

A detailed report of aspects to improve in preparing the report, which were encountered in our assurance exercise, has been submitted to the organization.

### Independence:

We carried out our work in line with code of ethics requirements, which require that the assurance team members and the sustainability assurance firm, are not related to client, including those that were not involved in writing the report. The code also includes detailed requirements to ensure the behavior, integrity, objectivity, professional competence, diligence, confidentiality and professionalism of the verifiers. ICONTEC International has implemented systems and processes to monitor compliance with the code and to prevent conflicts of interest.

### Use and disclosure restrictions:

This report was prepared exclusively to **provide assurance** of the contents in the **ISAGEN S.A. E.S.P.** 2015 Management Report for the year ending as at December 31, 2015. It was prepared in line with the sustainability report assurance procedures created by ICONTEC International, and may not be used for any other purpose.



Our report is for the sole and exclusive presentation to interested parties reading the 2015 Management Report and should not be distributed or used by others.

Colombian Institute of Technical Standards and Certification (ICONTEC)

Adriana María Alonso Rozo Regional Director, Antioquia Date: 3/18/2016

Reviewer: Camilo Andrés Carvajal Guerra



GLOBAL REPORTING INITIATIVE (GRI)
TABLE OF INDICATORS

			G	ENERAL STAND	OARD DISC	LOSURES					
	General Standard Disclosures	Page	External Verification	Material Aspect	Global Compact	Water Mandate	Caring for Climate	Guiding Principles	Millennium Development Goals (MDG)	CDP - Climate Change	Dow Jones Sustainability Index
STRAT	EGY AND ANALYSIS										
G4-1	Statement from the organization's highest decision-making body about the relevance of and strategy of sustainability.	5	Χ		Χ					Χ	
G4-2	Provide a description of key impacts, risks, and opportunities.	9, 39 - 42, 71 - 74, 140	Х		X					Χ	Χ
ORGAI	NIZATIONAL PROFILE										
G4-3	Name of the organization.	28	Χ		Χ						
G4-4	Primary brands, products and services.	30	Χ		Χ						Χ
G4-5	Location of the organization's headquarters.	31	Χ		Χ						
G4-6	Report the number of countries where the organization operates.	31	Χ		Х						Х
G4-7	Describe the nature of ownership and legal form.	30	Χ		Χ						
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	33, 116, 121	Х		Χ						
G4-9	Scale of the organization (employees, operations, and sales).	9, 28 - 42	Χ		Χ						Χ
G4-10	Labor indicators (total number of employees by gender, region, and employment contract)	254 - 255	Χ		Χ						Х
G4-11	The percentage of total employees covered by collective bargaining agreements.	241 - 242	Х	Comprehensive Employee Development	Χ						Х
G4-12	Describe the organization's supply chain.	265 - 267	Χ	Supply Chain	Χ						Χ

	GENERAL STANDARD DISCLOSURES												
	General Standard Disclosures	Page	External Verification	Material Aspect	Global Compact	Water Mandate	Caring for Climate	Guiding Principles	Millennium Development Goals (MDG)	CDP - Climate Change	Dow Jones Sustainability Index		
G4-13	Report any significant changes during the reporting period regarding the organization size, structure, ownership, or its supply chain.	28 - 42	Χ		Χ								
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	109	Χ										
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	86	Χ						X	Χ			
G4-16	List memberships of associations and national or international advocacy organizations.	82 - 86	Х						X	Χ			
MATER	RIAL ASPECTS AND BOUNDARIES												
G4-17	Entities included in the organization's consolidated financial statements or equivalent documents, and any entity that is not covered by the report.	15	Χ										
G4-18	Explain the process for defining the report content and the Aspect Boundaries.	16 - 26	Χ								Χ		
G4-19	List all the material Aspects identified in the process for defining report content.	21	Χ								Χ		
G4-20	Report whether the aspect is material within the organization.	22 - 24	Χ							Χ	Χ		
G4-21	For each material aspect, report the aspect boundary outside the organization.	22 - 24	Χ										

			G	ENERAL STAN	DARD DISC	LOSURES					
	General Standard Disclosures	Page	External Verification	Material Aspect	Global Compact	Water Mandate	Caring for Climate	Guiding Principles	Millennium Development Goals (MDG)	CDP - Climate Change	Dow Jones Sustainability Index
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements	15	Χ								
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	20	Χ								
STAKE	HOLDER ENGAGEMENT										
G4-24	Provide a list of stakeholder groups engaged by the organization.	35	Χ	Sustainable Relations	Χ						Х
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	34	Χ	Sustainable Relations	Χ						X
G4-26	Report the organization's approach to stakeholder engagement.	34, 296 - 311	Χ	Sustainable Relations	Χ						Χ
G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, included through its reporting.	21 - 24, 305 - 310	Х	Sustainable Relations	Χ						Х
<b>REPOF</b>	RT PROFILE										
G4-28	Reporting period for information provided.	14	Χ								
G4-29	Date of most recent previous report (if any)	14	Χ								
G4-30	Reporting cycle.	14	Χ								
G4-31	Provide the point of contact for questions regarding the report or its contents.	27	Χ								
G4-32	GRI G4 Content Index.	401	Χ		Χ					Χ	

	GENERAL STANDARD DISCLOSURES												
	General Standard Disclosures	Page	External Verification	Material Aspect	Global Compact	Water Mandate	Caring for Climate	Guiding Principles	Millennium Development Goals (MDG)	CDP - Climate Change	Dow Jones Sustainability Index		
G4-33	Report the organization's policy and current practice on seeking external verification of the report.	25	Χ		Χ					Χ			
GOVER	NANCE												
G4-34	Report the governance structure of the organization.	10 - 12, 59 - 63	Χ		Χ					Χ	Χ		
G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to upper management and other employees.	61, 63	X		Χ						Χ		
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	60											
G4-37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	62 - 63	X		Х						X		
G4-38	Report the composition of the highest governance body and its committees.	60	Χ		Χ						Х		
G4-39	Report whether the Chairman of the highest governance body is also an executive officer. If so, describe his or her function within the organization's management and the reasons for this arrangement.	59, 60	X		Х						Χ		

	GENERAL STANDARD DISCLOSURES											
	General Standard Disclosures	Page	External Verification	Material Aspect	Global Compact	Water Mandate	Caring for Climate	Guiding Principles	Millennium Development Goals (MDG)	CDP - Climate Change	Dow Jones Sustainability Index	
G4-40	Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members.	60	X		Χ						Χ	
G4-41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders.	64	X		X						Х	
G4-42	Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	61	X		Χ						Χ	
G4-43	Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	61	X		X						Х	
G4-44	Report the processes for evaluation of the highest governance body's performance. Report actions taken in response to evaluation of the highest governance body's performance	63	X		X						Х	
G4-45	Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities	61 - 63	Χ		Х					Х	Х	

	GENERAL STANDARD DISCLOSURES												
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G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	62, 71	Х		Х					Χ	X		
G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	61, 71	Χ		Χ					X	X		
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material aspects are covered.	25	Χ		Χ						X		
G4-49	Report the process for communicating critical concerns to the highest governance body.	59 y 62	Χ		Χ						X		
G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	62	X		Χ						X		
G4-51	Report the remuneration policies for the highest governance body and senior executives.	62	Χ		Χ					Χ	Χ		
G4-52	Report the process for determining remuneration.	62 and 257 - 258	Х		Х						Х		
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration.	62, 237	X		X						X		

	GENERAL STANDARD DISCLOSURES											
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G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees.	258	Χ		Χ						Χ	
G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees.	259	X		Χ						Х	
ETHICS	S AND INTEGRITY											
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	33 and 46	Χ	Ética empresarial	Χ						Х	
G4-57	Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity.	50 - 51	Χ	Ética empresarial	X						Χ	
G4-58	Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity.	50	Х	Ética empresarial	Х						Х	

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CATEG	ORY: ECONOMIC										
ECONO	MIC PERFORMANCE										
G4-EC1	Report the direct economic value generated and distributed.	9, 38, 319 - 325	Χ	Company value							Х
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	39 - 42, 185 - 195	Χ	Comprehensive Climate Change Management	Χ		X			Χ	Χ
G4-EC3	Extent of the company's social benefit programs obligations.	241		Comprehensive Employee Development							
MARKE	ET PRESENCE										
G4-EC5	Ratios of Standard Entry Level Wage by Gender Compared to Local Minimum Wage at Significant Locations of Operation.	259	Χ	Comprehensive Employee Development	Χ				X		
G4-EC6	Percentage of senior management at significant locations of operation that are hired from the local community.	63 and 259	Χ	Comprehensive Employee Development	Χ						
INDIRE	CT ECONOMIC IMPACTS										
G4-EC7	Development and Impact of Infrastructure Investments and Services Supported.	212 - 231	Χ	ISAGEN as an agent of change in the regions where it operates					X		Х
CATEG	ORY: ENVIRONMENTAL										
Energy											
G4-EN3	Energy Consumption within the Organization.	107	Χ	Comprehensive Climate Change Management Energy Production and Sales	X				Х	Х	

	SPECIFIC STANDARD DISCLOSURES  Millennium											
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G4-EN4	Energy Consumption outside of the Organization	107	X	Comprehensive Climate Change Management Energy Production and Sales	X		Χ					
G4-EN5	Energy Intensity.	108	X	Comprehensive Climate Change Management Energy Production and Sales	Χ				Χ			
G4-EN6	Reduction of Energy Consumption.	108	X	Comprehensive Climate Change Management Energy Production and Sales	X				Χ			
WATER												
G4-EN8	Total Water Withdrawal by Source	174 - 175	Х	Comprehensive water management	Χ	Х			Χ		Х	
G4-EN11	Operational Sites Owned, Leased, Managed in, or Adjacent to, or Located in Protected/ Unprotected Areas of High Biodiversity Value.	201	Χ	Biodiversity management	X				Χ		Х	
BIODIVE	ERSITY											
G4-EN12	Description of Significant Impacts of Activities, Products, and Services on Biodiversity or Located in Protected/ Unprotected Areas of High Biodiversity Value.	111, 200	Х	Biodiversity management	Х				Х		Х	

	SPECIFIC STANDARD DISCLOSURES											
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G4-EN13	Habitats Protected or Restored.	201	Χ	Biodiversity management	Χ				Χ		Χ	
G4-EN14	Total Number of IUCN Red List Species and National Conservation List Species with Habitats in Areas Affected by Operations, by Level of Extinction Risk.	202	Х	Biodiversity management	Х				Χ		X	
EMISSI	ONS											
G4-EN15	Direct Greenhouse Gas Emissions (Scope 1).	190	Χ	Comprehensive Climate Change Management	Χ		Χ		Χ	Χ	Χ	
G4-EN16	Energy Indirect Greenhouse Gas Emissions (Scope 2).	190	Χ	Comprehensive Climate Change Management	Χ		Χ		Χ	Χ	Χ	
G4-EN18	Greenhouse Gas (GHG) Emissions Intensity.	190	Χ	Comprehensive Climate Change Management	Χ		Χ		Χ	Χ	Χ	
G4-EN19	Reduction of Greenhouse Gas (GHG) Emissions.	190	Χ		Χ		Χ			Χ		
G4-EN21	NOx, SOx, and Other Significant Air Emissions.	315	Χ	Comprehensive Climate Change Management	Χ		Χ		Χ		Χ	
EFFLUE	NTS AND WASTE											
G4-EN22	Total water discharge by quality and destination (method of treatment and reuse)	176	Χ	Comprehensive water management	Χ	Χ						
G4-EN24	Total Number and Volume of Significant Spills.	176		Comprehensive water management	Χ	Χ			Χ		Х	
COMPL	IANCE											
G4-EN29	Monetary Value of Significant Fines and Total Number of Non-Monetary Sanctions for Non-Compliance with Environmental Laws and Regulations.	176		Business Ethics Energy Production and Sales	Х				Х		X	

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TRANSF	PORT										
G4-EN30	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	190		Comprehensive Climate Change Management	Χ						
OVERAL	LL										
G4-EN31	Total Environmental Protection Expenditures and Investments by Type.	9, 111 and 150	Χ	Company value	Χ				Χ		Х
SUPPLI	ER ENVIRONMENTAL ASSESSMENT										
G4-EN32	Percentage of New Suppliers that Were Screened Using Environmental Criteria.	271		Supply Chain	Χ	Χ	Χ			Χ	
G4-EN33	Significant Actual and Potential Negative Environmental Impacts in the Supply Chain and Actions Taken.	271		Supply Chain	Χ					Χ	
CATEGO	ORY: SOCIAL										
LABOR	PRACTICES AND DECENT WORK										
Employ	ment										
G4-LA1	Total Number and Rates of New Employee Hires and Employee Turnover by Age Group, Gender and Region.	256	Χ	Comprehensive Employee Development	Χ						Χ
G4-LA2	Benefits Provided to Full-Time Employees that Are Not Provided to Temporary or Part-Time Employees, by Significant Locations of Operation.	241	X	Comprehensive Employee Development							Χ
G4-LA3	Return to Work and Retention Rates after Parental Leave, by Gender.	244	Χ	Comprehensive Employee Development	Χ				Х		Χ

	SPECIFIC STANDARD DISCLOSURES												
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Occupa	tional Health and Safety												
G4-LA5	Percentage of Total Workforce Represented in Formal Joint Management-Worker Health and Safety Committees that Help Monitor and Advise on Occupational Health and Safety Programs.	251	X	Occupational Safety and Health							Χ		
G4-LA6	Type and Rates of Injury, Occupational Diseases, Lost Days, and Absenteeism, and Number of Work-Related Fatalities, by Region and by Gender.	252 - 253	Х	Occupational Safety and Health Value Chain	Χ						Χ		
G4-LA7	Employees with High Incidence or High-Risk of Diseases Related to Their Occupation.	252		Occupational Safety and Health							Χ		
G4-LA8	Health and Safety Topics Covered in Formal Agreements with Trade Unions.	241		Occupational Safety and Health							Χ		
Training	and Education												
G4-LA9	Average Hours of Training per Year per Employee by Gender, and by Employee Category.	248	Χ	Comprehensive Employee Development	Χ				X		Χ		
G4-LA11	Percentage of Employees Receiving Regular Performance and Career Development Reviews, by Gender and by Employee Category.	237	Х	Comprehensive Employee Development	Χ				X		Х		
Diversit	y and Equal Opportunity												
G4-LA12	Composition of Governance Bodies and Breakdown of Employees According to Professional Category and Gender, Age Group, Minority Group Membership and Other Indicators of Diversity.	60, 259 - 260	X	Comprehensive Employee Development	Χ								

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Equal R	emuneration for Women and Men										
G4-LA13	Ratio of Basic Salary and Remuneration of Women to Men by Employee Category, by Significant Locations of Operation.	260	Χ	Comprehensive Employee Development	Χ				Х		
Supplie	r Assessment for Labor Practices										
G4-LA14	Percentage of New Suppliers that Were Screened Using Labor Practices Criteria.	260	Χ	Value Chain	Х						
G4-LA15	Significant Actual and Potential Negative Impacts for Labor Practices in the Supply Chain and Actions Taken.	273	Χ		Χ						
Labor P	ractices Grievance Mechanisms										
G4-LA16	Number of Grievances about Labor Practices Filed, Addressed, and Resolved through Formal Grievance Mechanisms.	241	Χ	Comprehensive Employee Development							X
HUMAN	RIGHTS										
Investm	ent										
G4-HR1	Total Number and Percentage of Significant Investment Contracts and Agreements that Include Human Rights Clauses or that Underwent Human Rights Screening.	288	Χ	Supply Chain Human Rights	X			Χ			
G4-HR2	Total Hours of Employee Training on Human Rights Policies and Procedures Concerning Aspects of Human Rights that Are Relevant to Operations, Including the Percentage of Employees Trained.	292 - 293	X	Comprehensive Employee Development Human Rights	X			Х			

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Non-dis	crimination										
G4-HR3	Total number of incidents of discrimination and corrective actions taken.	291	Χ	Supply Chain Comprehensive Employee Development Human Rights	Х			X			
Child La	abor										
G4-HR5	Operations and Suppliers Identified as Having Significant Risk for Incidents of Child Labor, and Measures Taken to Contribute to the Elimination of Child Labor.	272 and 288	Х	Supply Chain Human rights	Х			Х	Χ		
Security	/ Practices										
G4-HR7	Percentage of Security Personnel Trained in the Organization's Human Rights Policies or Procedures that Are Relevant to Operations.	292	Χ	Supply Chain	Χ			Χ			
Indigen	ous Rights										
G4-HR8	Total Number of Incidents of Violations Involving Rights of Indigenous Peoples and Actions Taken.	291	Х	Human Rights	Χ			Χ			
Assessi	ment										
G4-HR9	Total Number and Percentage of Operations that Have Been Subject to Human Rights Reviews or Impact Assessments.	287-288	Χ	Human Rights ISAGEN as an agent of change in the regions where it operates	Χ			X			

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Supplie	r Human Rights Assessment										
G4-HR10	Percentage of New Suppliers that Were Screened Using Human Rights Criteria.	270, 272, 274, 287-288, 292	Х	Human Rights Supply Chain	Χ			Х			
G4-HR11	Significant Actual and Potential Negative Human Rights Impacts in the Supply Chain and Actions Taken.	272		Human Rights Supply Chain	Χ			X			Х
Human	Rights Grievance Mechanisms										
G4-HR12	Number of Grievances about Human Rights Impacts Filed, Addressed, and Resolved through Formal Grievance Mechanisms.	50, 291		Human Rights Business Ethics	Χ			Χ			Χ
SOCIET	Υ										
Local C	ommunities										
G4-S01	Percentage of Operations with Implemented Local Community Engagement, Impact Assessments, and Development Programs.	109, 287-288	Χ	ISAGEN as an agent of change in the regions where it operates	Χ				Х		Х
G4-S02	Operations with Significant Actual and Potential Negative Impacts on Local Communities.	111 and 215	Х	ISAGEN as an agent of change in the regions where it operates Energy Production and Sales	Χ				Х		Х

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Anti-corruption											
G4-S03	Total Number and Percentage of Operations Assessed for Risks Related to Corruption and the Significant Risks Identified.	48	Χ	Business Ethics	Χ						Χ
G4-S04	Communication and Training on Anti- Corruption Policies and Procedures.	48, 52	Χ	Business Ethics	Х						Χ
G4-S05	Confirmed Incidents of Corruption and Actions Taken.	51	Χ	Business Ethics	Χ						Χ
Public F	Policy										
G4-S06	Total Value of Political Contributions by Country and Recipient/Beneficiary.	49	Χ	Business Ethics	Х						Χ
Anti-co	mpetitive Behavior										
G4-S07	Total Number of Legal Actions for Anti- Competitive Behavior, Anti-Trust and Monopoly Practices and Their Outcomes.	49 y 126	Χ	Business Ethics Energy Production and Sales							Χ
Compli	ance										
G4-S08	Monetary Value of Significant Fines and Total Number of Non-Monetary Sanctions for Non- Compliance with Laws and Regulations.	49		Ethics and transparency							Х
Supplie	r Assessment for Impacts on Society										
G4-S010	Significant Actual and Potential Negative Impacts for Society in the Supply Chain and Actions Taken.	270-274	Χ	Supply Chain	Х						

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PRODU	CT RESPONSIBILITY											
Custom	er Health and Safety											
G4-PR1	Percentage of Significant Product and Service Categories for which Health and Safety Impacts are Assessed for Improvement.	134	Χ	Energy Production and Sales								
G4-PR2	Report the Total Number of Incidents of Non- Compliance with Regulations and Voluntary Codes Concerning the Health and Safety Impacts of Products and Services.	134	Х	Energy Production and Sales							X	
Product	and Service Labeling											
G4-PR5	Results of Surveys Measuring Customer Satisfaction.	135	Χ	Energy Production and Sales							Χ	
Marketi	ng Communications											
G4-PR7	Total Number of Incidents of Non-Compliance with Regulations and Voluntary Codes Concerning Marketing Communications, Including Advertising, Promotion, and Sponsorship, by Type of Outcomes.	135	Χ	Energy Production and Sales							X	
Custom	er Privacy											
G4-PR8	Total Number of Substantiated Complaints Regarding Breaches of Customer Privacy and Losses of Customer Data.	135		Energy Production and Sales							Χ	
Complia	ance											
G4-PR9	Monetary Value of Significant Fines for Non-Compliance with Laws and Regulations Concerning the Provision and Use of Products and Services.	134	Х	Energy Production and Sales							X	

	SECTOR DISCLOSURES											
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ORGA	NIZATIONAL PROFILE											
EU1	Installed Capacity, Broken down by Primary Energy Source and by Regulatory Regime.	97	Χ	Energy Production and Sales							Χ	
EU2	Net Energy Output Broken down by Primary Energy Source and by Regulatory Regime.	98	Χ	Energy Production and Sales							X	
EU3	Number of Residential, Industrial, Institutional and Commercial Customer Accounts.	121		Energy Production and Sales								
SYSTE	EM EFFICIENCY											
EU11	Average Generation Efficiency of Thermal Plants, by Energy Source and by Regulatory Regime.	100	Х	Energy Production and Sales							Χ	
EMPL	OYMENT											
EU18	Percentage of Contractor and Subcontractor Employees that have Undergone Relevant Health and Safety Training.	275-276	Х	Comprehensive Employee Development Supply Chain								
LOCAI	L COMMUNITIES											
EU22	Number of People Physically or Economically Displaced and Compensation, Broken down by Type of Project.	225	Х	ISAGEN as an agent of change in the regions where it operates					X			

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CUSTO	CUSTOMER HEALTH AND SAFETY										
EU25	Number of Injuries and Fatalities Among Users Involving Company Assets, Including Legal Judgments, Settlements and Pending Legal Cases.	134		Energy Production and Sales							
ACCES	ACCESS										
EU30	Average Plant Availability Factor by Energy Source and by Regulatory Regime.	99	Х	Energy Production and Sales							Χ