

## SUSTAINABILITY VISION

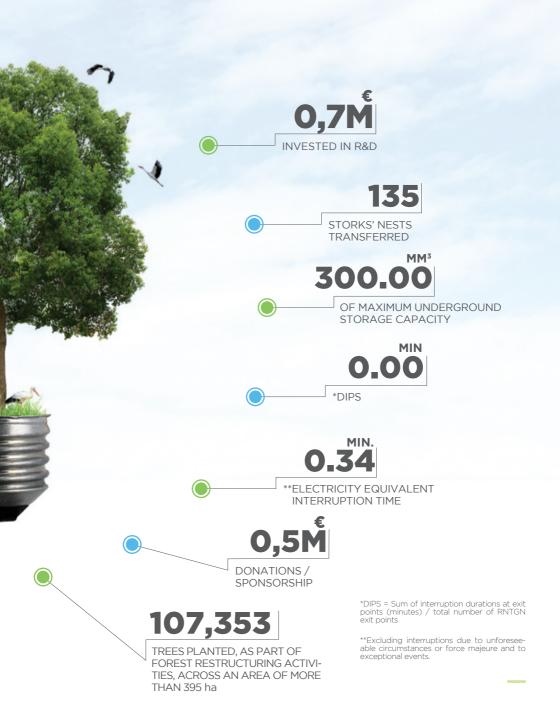
To ensure an uninterrupted supply of electricity and natural gas at the lowest cost with quality and safety - this is the mission of REN - Redes Energéticas Nacionais. This commitment is becoming increasingly ambitious as the development of the company merges with continuous and active corporate citizenship efforts, with strong involvement in the communities in which we operate, at both a social and an environmental level.

With this balance, we believe we are contributing towards an increasingly positive world.









## AWARDS

## **Questar 2016**

GOLD //

Investors and media app.

## **Best in Biz Awards**

SILVER //

Best Place to Work.

## Interactive Media Awards

BEST IN CLASS //

Best in Class in the Investor Relations category, with the app for Investors & Media.

### Investor Relations & Governance Awards (IRGA)

HONOURABLE MENTION //

In the category of Best Annual Report - Non-Financial Sector.

## iNova Awards

GOLD, SILVER & BRONZE //

REN awarded gold, silver and bronze at the 2016 iNOVA Awards in the categories of Online Annual Report, Sustainability Report and Investors and Media App, respectively.

## Bucelas Volunteer Firefighters Humanitarian Association

SILVER //

REN awarded the Silver Distinguished Service Medal, of the League of Portuguese Firefighters, by the Bucelas Volunteer Firefighters Humanitarian Association.

## Lusophone Creativity Awards

BRONZE //

REN'S 2015 Annual Report awarded bronze in the Digital category.

### Recognition of Social Responsability Pratices (RPRS)

HONOURABLE MENTION //

Heróis de Toda a Espécie (Heroes of All Kinds) distinguished with a honourable mention in the Community category.

## **IR Magazine Awards**

GRAND PRIX //

Grand Prix for best overall investor relations na categoria de "small cap", nos IR Magazine Awards - Europe.

### MSCI RATING A//

Rating A in Environment, Social, and Governance (ESIG).

## **ITOMS** BEST PRESENTATION //

At the conference on electrical grid management (ITOMS – International Transmission Operations & Maintenance Study).

### Healthy Workplaces 2<sup>nd</sup> PLACE //

Second place in the Large Business category.



Award for best intranet and best annual report at the 2016 APCE Grand Prix.

At this ceremony, REN's intranet also won second place at the FEIEA (European Association for Internal Communication) Grand Prix in the category of Best Internal Communication Strategy.

### Most Atractive Employers

BEST COMPANY//

REN considered one of the best employers in Portugal, by the *Most Attractive Companies to Work for* study.

### APSA Awards 1st EDITION //

REN awarded at the first APSA Awards for its contribution to the reception and inclusion of people with Asperder syndrome.

## OUR NETV

In 2016, hydroelectric power plants supplied 28% of consumption, wind farms 22%, biomass plants (including traditional and co-generation plants) 5% and photovoltaic plants 1.4%. With regard to non-renewables, coal-fired power stations supplied 21% of consumption and natural gas plants (including combined-cycle and co-generation plants) also supplied 21%. Despite the relatively steady consumption seen in recent years, national production (55.9 Tw) reached its highest ever figure this year, 12% above the last record in 2010, due to a high export balance. This export balance, the first since 1999 and the highest ever, is equivalent to 10% of national consumption.

In 2016, consumption of natural gas rose to 55.8 Tw, representing an increase of 6.9% compared to the previous year. This recovery in consumption is now in its second year, and is driven by the momentum of the electricity production sector, as it was in the previous year. With the recovery of the last two years, the consumption of natural gas recorded this year was the highest since 2011 and 3.4% away from the all-time high recorded in 2010. Despite the growth in renewable electricity production in 2016, the strong export balance seen throughout the

year led to greater use of combined-cycle plants, with consumption from these reaching 15.4 Tw, the highest figure since 2011. Consumption from electric power plants therefore represented 28% of total natural gas consumption, compared to 21% last year. In the conventional segment, a consumption of 40.5 Tw was recorded, falling 1.8% compared to the previous year. This situation is a repeat of recent years owing to a reduction in the activity of large co-generation plants. This segment represented 72% of total natural gas consumption.

## ELECTRICITY

TECHNICAL INDICATORS ELECTRICITY	<b>'16</b>	<b>'15</b>	<b>'14</b>	<b>'1</b> 3	<b>'12</b>
Consumption, Tw	49,3	49,0	48,8	49,2	
Annual variation in electricity consumption, %	0,6%	0,3%	-0,7%	0,2%	-2,9%
Installed capacity, MW	19.513	18.563	17.790	17.705	18.429
Energy transmitted on the RANT, TWh	46,7	43,0	41,9	41,5	41,0
Length of lines, km	8.863	8.805	8.630	8.733	8.534
Transformation capacity, MA	36.636	36.673	35.754	34.984	33.915
Energy transport losses, %	1,72%	1,56%	1,86%	1,75%	1,62%
Equivalent interruption time, minutes	0,34	0,21	0,02	0,09	0,00

## NATURAL GAS

TECHNICAL INDICATORS NATURAL GAS	<b>'16</b>	<b>'15</b>	<b>'14</b>	<b>'13</b>	<b>'12</b>
Consuption, Tw	55,8	52,2	45,3	47,9	50,2
Annual variation in natural gas consumption, %	6,9%	15,3%	-5,4%	-4,6%	-12,7%
Gas transported by the RNTGN, Tw	56,7	53,0	46,3	48,8	50,3
Lenght of gas pipelines, km	1.375	1.375	1.375	1.375	1.298
Underground gas storage capacity, mm3*	300,0	300,0	170,3	138,8	132,7
Average lenght of interruptions per dip, minutes/dip	0,00	0,0	0,07	0,0	0,0

\*The volume shown is the maximum capacity available for commercial purposes, which depends on the specific thermodynamic conditions of the high-pressure storage of natural gas in saline cavities.

## INOVATION, RESEARCH & TECHNOLOGY

In 2015, investment through R&D activities at companies belonging to the REN Group, namely Rede Elétrica Nacional, S.A. and REN Gasodutos, S.A., amounted to a total of 790 thousand euros.

This investment was almost 2 million euros at the Energy Research Centre REN-State Grid, S.A., R&D Nester.

Based on the data assessed so far, 2016 is expected to have seen a similarly large investment.

With regard to R&D activities carried out at REN, there has been an increase in knowledge-sharing and learning processes through involvement in cross-sectoral projects at the REN Group, creating synergies between the electricity and gas sectors.

# Some of REN's participations in international bodies in the sector:

### CIGRÉ

International Association dedicated to the study of Power Systems.

### ENTSO-E

The European Network of Transmission System Operators for Electricity.

#### **MED-TSO**

The Association of Mediterranean Transmission System Operators.

### IESOE

Southeast Europe Electric Interconnection.

### FSR

Florence School Of Regulation Center for advanced studies on regulation.

### CORESO

European TSOs association.

#### ENTSO-G

The European Network of Transmission System Operators for Gas.

### GIE

#### Gas Infrastructure Europe

The association of operators of gas transmission networks, gas storage systems and LNG terminals.

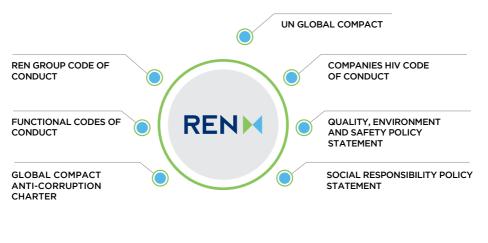
### GIIGNL

International Group of Liquefied Natural Gas Importers.

## OUR APPROACH

REN respects the commitment it made when it joined the United Nations Global Compact (UNGC) initiative, in 2005, to supply information on its progress in implementing the ten principles relating to human rights, employment practices, environmental protection and anticorruption measures.

## CODES & PRINCIPLES





### HUMAN RIGHTS PRINCIPLES

- Respect and protect human rights.
- Prevent the violation of human rights.

#### **EMPLOYMENT LAW PRINCIPLES**



- Support freedom of association at work.
- 4 Abolish forced labour.
- Abolish child labour.
- Eliminate discrimination in the working environment.

#### ENVIRONMENTAL PROTECTION PRINCIPLES

Support a precautionary approach to environmental challenges.



9 Promote environmentally friendly technologies.

#### ANTI-CORRUPTION PRINCIPLES

Work against corruption in all its forms, including extortion and bribery.

# OUR STRATEGY



REN has defined a sustainability strategy which is in line with the sustainable development goals (SDGs) created in 2015 by the United Nations.

Taking into account what we do and how we do it, we defined the following goals as priorities: quality education; gender equality; affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; sustainable cities and communities; responsible consumption and production; climate action; protection of life on Earth; and partnerships for achieving goals.

In addition, as part of the compromise that it made with its stakeholders, REN held another stakeholder hearing in 2016, which ended in 2017.

The purpose of this was to identify materially relevant topics, with the ongoing aim of meeting its stakeholders' expectations and improving its performance in terms of the three fundamental pillars of its sustainability strategy.



### PROMOTION OF INTERNAL WELL-BEING

For REN, valuing human capital is essential for achieving our objectives. It is vital to ensure that our employees have the best conditions in which to perform their tasks, that there is diversity and access to equal opportunities, and that all our high standards for hygiene, health and safety at work are met. In short, a priority for REN is to become an increasingly positive place to work and a company that offers all its employees an environment in which their talent and work can be fruitful. In doing so, we aim to contribute to the personal growth of our staff and the smooth running of the organisation.

## STAKEHOLDER INVOLVEMENT

Owing to the nature and scope of its mission, REN is a company with a country-wide presence whose activity often involves interacting with local communities. Given that our objective is to contribute to the dignity, well-being and quality of life of Portuguese people, it is not enough to simply provide an efficient and affordable service: we need to promote an inclusive culture which encourages the involvement of all stakeholders and gives communities an active role. To this end, we listen to concerns and recommendations, foster and reward helpful initiatives and create a positive impact on people, who we view not as passive beneficiaries but as partners whose collaboration is vital.



### ENVIRONMENTAL PROTECTION

REN is committed to being an active player in environmental protection and biodiversity conservation, by implementing reforestation policies, promoting education about the environment, defending the sensible use of natural resources and anti-pollution measures, furthering the development of renewable energies, and playing an active role in preventing climate change.

AXES OF OUR STRATEGY

## **PROMOTION OF INTERNAL WELL-BEING**

## **HUMAN RESOURCES**

593 OF EMPLOYEES ARE PERMANENT



**32**% MALE/FEMALE RATIO WOMEN DIRECTORS



OF EMPLOYEES HAVE UNIVERSITY-LEVEL ACADEMIC QUALIFICATIONS



608 NO. OF EMPLOYEES











## PILLARS OF HUMAN CAPITAL MANAGEMENT

In 2016, there was a focus on the integration and consolidation of various initiatives and on the implementation of programmes carried out in 2015.

Objectives for the development of a unique culture in line with current and future needs relating to business and to the implementation of integrated, transparent and across-the-board policies were also strengthened as a result of increased reporting on various human resources activities and greater stakeholder involvement.

Consolidating the integrated human resources model therefore involved:

- Continuing to adapt and optimise the organisational model in line with business development and challenges in the sector, making it more flexible and renewing its structure;
- Consolidating the implementation of the policies established by the New Collective Bargaining Agreement and new human resources regulations;
- Implementing a programme for the full development of human capital, REN Campus, in which training and different development initiatives are selected based on business needs and the individual development of each employee, to ensure that know-how is passed on and that specific knowledge of the organisation is updated and sustainable;
- Introducing the new employee portal, MyREN, which streamlines and centralises processes relating to human resources management on a single platform, simplifying employees' day-to-day work;

- Continuing to develop programmes aimed at motivating employees, maintaining the organisational climate, and forming closer ties with the community through initiatives to promote balance, equality and inclusion, which have achieved significant impact and recognition;
- Developing the REN Flex benefits scheme with the introduction of new benefits, based on feedback collected from employees so that the programme could be adapted to their needs;
- Continuing talent- and performance-recognition programmes that are in line with human resources best practices in a sustainable manner;
- Increasing the reporting on human resources activities and the involvement of all their stakeholders, through initiatives such as staff meetings, management meetings and strategy workshops, among others.

## PERSONAL & PROFESSIONAL DEVELOPMENT

The REN Trainee Programme is already a well-established programme aimed at empowering the company with the best and most suitable human resources. It comprises professional, academic and summer interns who are all given the chance to work on specific projects which add value to the respective fields and are educational for the interns.

FIGURES	'16
Professional interns	11
Academic interns	20
Summer interns	11
TOTAL	42

REN Campus began in 2016, but its origins date back to 2011. That year, the company's training policy included the introduction of across-the-board training, which, in turn, gave rise to a series of programmes aimed at skills development. It was on this basis that REN decided to move towards a new model that unites everything related to training under one umbrella. REN Campus is therefore presented as a REN training model dedicated to developing human capital in full. Its mission is to offer distinguishing added value in knowledge management, through the creation of across-theboard, strategic training programmes that are in line with the company's strategy and business, its principal objective being to enhance business growth and consolidation through people development, with a differentiated offer aimed at ensuring the correct management of intellectual capital and the continuous transfer of knowledge.

TRAINING	<b>'16</b>	ʻ15	<b>'14</b>
No. of hours of training	27.009	18.644	29.939
No. of participants	2.792	3.031	2.883
No. of hours of training per employee	43,8	29,3	45,4
Average no. of employees	617	637	659

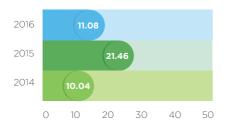
AREA OF TRAINING (NO. OF HOURS)	<b>'16</b>	<b>'15</b>	<b>'14</b>
Behavioural	7.166	544	1.542
Technical	13.015	14.661	23.768
QAS	3.316	1.882	1.413
Management	3.513	1.558	3.217
TOTAL	27.009	18.644	29.939

FUNCTIONAL GROUP (NO. OF PARTICIPANTS)	<b>'16</b>	ʻ15	<b>'14</b>
Behavioural	605	125	340
Technical	1.434	2.086	1.762
QAS	420	562	242
Management	333	258	539
TOTAL	2.792	3.031	2.883

FUNCTIONAL GROUP (№ DE HORAS)	<b>'16</b>	<b>'15</b>	<b>'14</b>
Leadership	1.618	928	1.639
Management	3.163	1 135	3.106
Coordination	490	555	1.398
Senior Management	16.091	10.436	16.493
Operational / Administrative	5.647	5.590	7.303,1
TOTAL	27.009	18.644	29.939

## HEALTH AND SAFETY

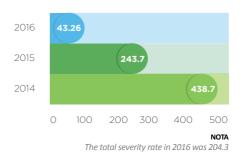
REN's commitment to the effective management of health and safety at work stems from the knowledge that a safe and healthy environment is a determining factor in stakeholder satisfaction. The health and safety at work management system is certified by an accredited body and covers the vast majority of companies in the group. Its main objective is to prevent work-related accidents and injuries among either company staff or workers employed by contractors and service providers that collaborate with REN. In 2016, approximately 30% of REN's contractors and service providers had certified OHSAS 18001/NP 4397 safety management systems in place. In 2016, REN organised safety training and awareness activities for all (100%) its contractors and service providers, involving a total of 178 companies.



#### REN'S ACCIDENT RATE

RENM





One of REN's major concerns is ensuring that employees are offered the best working conditions in which to fulfil their tasks and that occupational health standards are followed. Consequently, REN uses the concept of health at work adopted by the World Health Organisation (WHO), as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity".

			1
	<b>'16</b>	<b>'15</b>	<b>'14</b>
Auxiliary diagnostics (per group of examinations)	596	390	548
Medical interventions	589	401	573
Nursing interventions (per group of examinations)	580	390	548
Visits by doctors to places of work	8	7	

	<b>'16</b>	ʻ15	<b>'14</b>
Absenteeism rate	2,1%	2,3%	2,6%

AXES OF OUR STRATEGY

## STAKEHOLDER INVOLVEMENT & SATION

## MAIN ACTIONS UNDERTAKEN

Actions undertaken by REN in 2016 were in line with the three axes of the sustainability strategy. With regard to the promotion of internal well-being, 29 initiatives were carried out under the NÓS Programme and 174 employees took part, within the framework of the three pillars it comprises: Balance, Equality and Inclusion.

A number of actions were undertaken in 2016 in connection with the axis of stakeholder involvement and satisfaction. These include the third REN Agir Award, which is dedicated to combating poverty and social exclusion, and for which 176 applications were received, the highest amount since its creation in 2013. Localizar-TE, a project undertaken by the Oikos Braga division, was the overall winner, while the projects TLT – Talentos em Livre Trânsito (Talents in Free Transit) and Super Babysitters were also awarded. Together, these three projects directly benefited 618 people. The 21st REN Awards, the oldest scientific prize in Portugal, received almost twice as many applications as it did the previous year. Winning topics were electricity storage, the integration of renewable energies and the uncertainty of wind production.

The Share Programme, REN's corporate volunteer programme, saw an increase of 12% in volunteers, bringing the number of employees up to 104. In addition to this figure, 43 relatives of REN employees took part.

THE 3 PILLARS OF NÓS PROGRAMME



There was also an increase of 24% in hours worked by volunteers in comparison to 2015, bringing the number up to 705 for employees and 170 for relatives of employees. This programme comprises a number of initiatives, such as entrepreneurism schemes for young people, run by Junior Achievement Portugal (http://www.japortugal.org), cleaning of the Mafra forest, collection of food for the Food Bank and support for initiatives to combat early school leaving run by EPIS - Entrepreneurs for Social Inclusion (http://www.epis.pt), among others. In 2016, REN once again supported various institutions. Social action highlights include participation in activities run by the Comunidade Vida e Paz (Life and Peace Community), the campaign #VamosAjudarOsBombeiros (Lets Help our Firefighters), support for the disabled sports programme and action





to promote quality of life undertaken by the Salvador Association (www.associacaosalvador.com), and the social project Amigos Sem Fronteiras (Friends Without Borders).

In the areas of culture and education, REN has established a patronage protocol with the Calouste Gulbenkian Foundation to pay for an internship for four PhD Science and Energy Technology students from the Eduardo Mondlane University (UEM) in Mozambique at the Instituto Superior Técnico (Higher Technical Institute) of the University of Lisbon. REN also renewed its partnership with the National Museum of Ancient Art, of which it is a patron. Highlights in the field of sports include support for the Olympic and Paralympic Committee in competitions held in 2016, and in the preparation of the Ankara Deaflympics Games in 2017.

REN maintained its participation in the project GestãoTransparente.org (Transparent Management), of which it is a founding member. The purpose of the project is to combine international efforts aimed at combating corruption through collective action and political dialogue initiatives, and through raising awareness about the topic.

With regard to environmental protection, REN held 1 reforestation activity in Vila Verde

which involved 100 6th and 7th year students from local schools. As part of its reforestation activities, REN has planted a total of 107,353 trees in 2016 to date. Also worth mentioning is the continuous work on the LIFE Elia project, which aims to promote and create green corridors in forests crossed by REN installations.

The Heróis de Toda a Espécie (Heroes of All Kinds) programme (www.heroisdetodaaespecie.pt), an educational initiative aimed at 3rd and 4th year children from all over the country, was run in 10 schools in 2016. This educational project, undertaken with the support of the Nature and Forest Conservation Institute and the Directorate General for Education, saw the participation of 750 students from northern to southern Portugal. Also in 2016, REN continued research work on the Biodiversity Chair, in conjunction with the Foundation for Science and Technology and the University of Porto. This work is based on three pillars: monitoring, minimising and offsetting impacts; population ecology; and citizen science.

> 1682 CONCLUDED PROCEEDINGS



CONTACTED

## RELATIONSHIP WITH LANDOWNERS

In 2016, we contacted 14,400 landowners over whose land our electricity transmission networks pass or will pass in the future. We also acquired 31 properties for the installation of new electricity and natural gas infrastructure, and 1,682 proceedings were concluded to award compensation to landowners, representing an investment of 6 million euros. With the inclusion of new landowners as a result of newly built infrastructure, the REN landowner database contained around 74,000 records at the end of 2016. REN always seeks to make both the installation and the operation of its infrastructure compatible with the legitimate interests of other stakeholders.

PROPERTIES ACQUIRED

# 2016

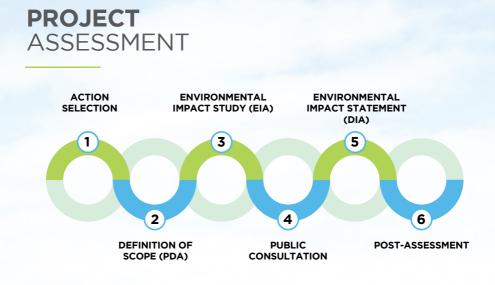


AXES OF OUR STRATEGY

## ENVIRONMENTAL PROTECTION



ENVIRONMENTAL IMPACT	<b>'16</b>	<b>'15</b>	<b>'14</b>
Environmental Impact Assessment Processes	5	2	4
Environmental Impact Post-Assessment Processes	0	0	2
Environmental Impact Statements issued	2	4	3
Environmental Projects Studies	0	0	0
Environmental Impact Studies (EIA)	3	5	0
Execution Project Environmental Conformity Report (RECAPE)	0	1	2



## STRATEGIC ENVIRONMENTAL ASSESSMENT

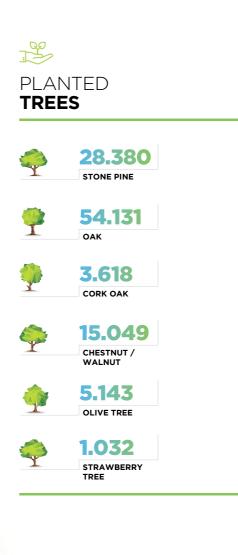
The strategic environmental assessment (AAE) is an environmental policy instrument (Decree-Law no. 232/2007, of 15 June, amended by Decree-Law no. 58/2011, of 4 May) which aims to ensure that an assessment of the environmental consequences of certain plans and programmes is carried out and implemented in advance. In 2016, REN started the AAE process for PDIRT 2018-2027.

## FLORA & SOIL USE

As a result of its construction and maintenance activities, REN has a direct impact on flora and soil use. This impact occurs, for example, when the line buffer strips associated with REN's infrastructure (electricity lines and gas pipelines) are created or maintained. As a way of offsetting this impact, REN has been carrying out various tree planting projects since 2007 in the context of building new installations, and since 2013 it has been extending this methodology to lines already in operation.

Through its easement strip reforestation programme, REN has already planted more than 660,000 trees in recent years (2010-2016) across an area of over 1,440 hectares.

In 2016, a total of 107,353 trees were planted across an area of approximately 395 hectares. The trees were of the following species in particular:



## AVIFAUNA

For more than ten years, REN has monitored the nesting patterns of the white stork population in its infrastructure, creating nesting conditions for this bird in favourable habitats and installing devices that minimize the risk of electrical accidents.

The fitting of fans and platforms stops the birds from nesting in the more dangerous

places, where the likelihood of an incident is higher; this prevents an increase in nests from leading to an increase in incidents.

During the year in question, there was a significant increase in the rate of incidents involving white storks compared to 2015.

	<b>'16</b>	ʻ15	<b>'14</b>
Number of platforms installed	144	349	178
Number of anti-perching devices installed	313	642	600
Number of nests transferred	135	221	250

## **CLIMATE CHANGE** EMISSIONS MANAGEMENT

REN is one of the best companies for disclosing information about corporate policies and activities in the field of climate change, according to the Carbon Disclosure Project (CDP) Iberia 125 Climate Change Report 2016. REN was invited to take part in the annual CDP questionnaire for the seventh year in a row. The company obtained a B rating (the second highest), which corresponds to the "Management" level. This assessment demonstrates that REN is taking steps to reduce its greenhouse gas emissions and to measure and manage its impact on the environment. To this end, it has adopted medium- to longterm reduction targets while monitoring its progress and taking emission-reducing action. In the field of prevention and control of greenhouse gas emissions, REN has implemented a plan of action in recent years for reducing its direct emissions, particularly in respect of sulphur hexafluoride (SF6), a gas used as an electrical insulator (dielectric) in various types of high and very high voltage equipment. Despite the increase in installed mass, the leakage rate remained practically unchanged in 2016. The company's efforts to reduce SF6 leakage are demonstrated by the evolution of the leakage rate of this gas, with results that are technically considered to be very positive on an international scale.

<b>GREENHOUSE GAS EMISSIONS</b> (TON CO <sub>2</sub> eq)	<b>'16</b>	<b>'15</b>	<b>'14</b>
SCOPE 1	28.797	19.905	25.849
Natural gas purges (CH <sub>4</sub> )	984	626	4.296
Flare burn	11.214	2.277	6.393
Own consumption by boilers	13.149	13.213	12.269
Sulphur hexafluoride (SF <sub>6</sub> )	1.208	1.152	460
Natural gas (buildings)	177	511	530
Propane gas (buildings)	5	8	11
Fuel (equipment and fleet)	2.060	2.118	1.890
SCOPE 2	110.109	135.256	118.742
Electricity	9.121	11.326	9.149
Electricity losses in the network	100.989	123.930	108.906
SCOPE 3	752	662	687
Air travel	752	662	687





This is an abridged version of REN's 2016 Sustainability Report. It is in conformity with the full-length version, which has been drafted in accordance with the requirements of the Global Reporting Initiative (GRI) G4 and the AA1000 APS (2008) standard (Accountability Principles Standard). It has been verified by an independent entity, Deloitte.

**Contact** For more information, please contact REN at:

#### REN – Redes Energéticas Nacionais, SGPS, S.A.

Av. Estados Unidos da América, 55 1749-061 Lisboa

Tel. 210 012 500 Fax: 210 013 310 www.ren.pt

REN is a member of







