Climate Change 2017 Information Request
Red Electrica Corp

Module: Introduction

Page: Introduction

CC0.1
Introduction
Please give a general description and introduction to your organization.

Red Eléctrica is the Spanish TSO (transmission & system operator). It is the sole company in Spain that carries out this kind of activities.
REE is the owner of the transmission grid in Spain and is responsible for the technical management of the Spanish electricity system (building and maintaining transmission infrastructures: lines and substations). As the manager of the transmission grid, Red Eléctrica must guarantee that facilities are adequately developed and enlarged as needed, that they are maintained and enhanced on the basis of uniform and consistent criteria, that the transmission of power between external systems using the Spanish power system is properly managed, that the managers of other interconnected grids receive the information they need to guarantee safe operations and that third party access to the grid is guaranteed under equal conditions.
As the operator of the Spanish power system, Red Eléctrica's principal mission is to guarantee the continuity and security of the power supply and to properly coordinate the production and transmission system, performing its functions in coordination with the operators and clients of the Iberian power market based on the principles of transparency, objectiveness and independence.
Red Eléctrica is also responsible for electricity transmission and acts as the operator of the insular and extra peninsular power systems.
Red Eléctrica also conducts other business in order to maximum the company's experience: Electricity activities abroad, which are handled by the subsidiary Red Eléctrica International, Energy storage activity in the Canary islands (still in the project stage) and Telecommunications activities (Reintel). The information reported for is only related to the facilities and activities in Spain (93% of the total activities), REE SAU.
REE do not generate energy.
In order to understand some of the answers provided it is important to mention that Electricity transmission in Spain is a regulated activity: the economic scheme is defined by government and regulated by law. Revenues are settled by the government according to defined criteria regarding investments, operational & maintenance costs and availability of the transmission grid.

CC0.2
Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3
Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Spain

CC0.4
Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

EUR(€)

CC0.6
Modules
As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.
If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Detailed information about REE activities is available in CR report. pg 11-17

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC0.Introduction/ree_corporate_responsibility_report_2016_v2.pdf

Module: Management

Page: CC1. Governance

CC1.1
Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a
Please identify the position of the individual or name of the committee with this responsibility

The ultimately responsibility for Climate Change Policy in REE is shared by the Board Chairman & the CEO of the company. The Compensation and Nomination Committee is the sub-set of the Board who is responsible of the CSR and Sustainability Policy (an also of Climate Change).
The executive tasks are delegated to the Sustainability Management Committee, directly appointed by the Board of Directors (appointed by the Compensation and nomination Committee).
The Sustainability & Innovation Director, who reports to the Corporate Director of Sustainability, Innovation and Institutional Coordination, leads the Sustainability Management Committee.
The main responsibility of the Chairman & the CEO regarding climate change is to approve and promote company's Climate Change Commitment.
The chairman, as an external director, has the responsibilities of supervision and control, and the CEO has the executive responsibilities for implementation.
The Sustainability & innovation Director must lead and encourage the necessary actions and best practices in order to implement the principles defined in the Climate Change policy.
Responsibilities regarding climate change are reflected in the "Climate Change Commitment", updated (and approved) in April 2017 (validated by the Sustainability & Innovation Director - who directly reports to the Chairman- and approved by the CEO).

CC1.2
Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Supply chain engagement Other: Key projects regarding climate change, emissions accounting projects	As stablished in the remuneration report (which is available for the public), 6% of the CEO´s incentive depends on fulfilment of a series of key projects included in the Corporate Responsibility Annual Plan and Environmental Annual Plan. Some of these projects are always about Climate Change: In 2016: Improvement of the management of SF6 in order to reduce emissions (100% compliance). In 2017: - Reduction of energy consumption in buildings: implementation of energy efficiency measures equivalent to a theoretical saving of 140,000 kWh per year. - New methodology for calculating emissions associated with the supply chain of REE
Corporate executive team	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Other: Key projects regarding climate change, communication projects	The fulfilment of some objectives regarding climate change is provided with monetary reward. Every year one or two projects are selected. e.g. For 2016 one objective was incentivized: “Improvement of data collection of electricity consumption. Protocol for verification and revision of electricity meters and consumption indicators” (100 % compliance). For 2017, three Projects have been chosen: - Approval of the New Climate Change Action Plan - Reduction of electric energy consumption in buildings: implementation of energy efficiency measures equivalent to a theoretical saving of 140,000 kWh per year - Reinforcement of REE's climate change commitment at the international level: Participation in the European Sustainable Energy week and in the COP 23
Corporate executive team	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Supply chain engagement Other: Key projects regarding climate change, emissions accounting projects	The right to receive an additional reward (between 15%-20% of the variable reward) is conditioned to the compliance with some targets, named "Managerial Targets". The achievement of the Corporate Responsibility Annual Plan and Environmental Plan, that comprises some Climate targets or projects, is one of the constituents of these managerial targets. Incentivized indicator (% of compliance). Managerial targets in the CR plan & Environmental Annual Plan: In 2016: Improvement of the management of SF6 in order to reduce emissions (100% compliance). In 2017: - Reduction of energy consumption in buildings: implementation of energy efficiency measures equivalent to a theoretical saving of 140,000 kWh per year. - New methodology for calculating emissions associated with the supply chain of REE
Chief Operating Officer (COO)	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target Other: Key projects regarding climate change, emissions accounting projects	Fulfilment of Environmental Program is provided with monetary reward. This program must be fulfilled at least 75% in order to receive the reward. Incentivized indicator: percentage of fulfilment of the program. Environmental program includes different projects and targets regarding emissions, energy consumption &efficiency. The objectives for 2016 that were included in the Environmental Program in relation to climate change were (Average achievement 86%): a) Improve the calculation of the carbon footprint of REE and increase of the scope (2014-2016) b) Improvement in the data collection of electricity consumption. Protocol for verification and revision of electricity meters and consumption indicators c) SF6 emission reduction (New maintenance criteria and end-of-life criteria) d) Reducing energy consumption by 20% (2011-2020) (Improvements in air conditioning systems) Since 2017, the fulfilment of the Environmental Annual Plan is part of the managerial targets.
All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Supply chain engagement Other: Key projects regarding climate change, emissions accounting projects	The annual salary revision for all employees (in a low percentage according to a calculation formula) is conditioned to the compliance with some targets, named "Managerial Targets". The achievement of the Corporate Responsibility Annual Plan & Environmental Annual Plan, that comprises some Climate targets or projects, is one of the constituents of these managerial targets. Incentivized indicator (% of compliance). Managerial targets in the CR Annual Plan & Environmental Annual Plan: In 2016: Improvement of the management of SF6 in order to reduce emissions (100% compliance). In 2017: - Reduction of energy consumption in buildings: implementation of energy efficiency measures equivalent to a theoretical saving of 140,000 kWh per year. - New methodology for calculating emissions associated with the supply chain of REE
All employees	Recognition (non-monetary)	Emissions reduction project Energy reduction project Efficiency project Environmental criteria included in purchases Supply chain engagement Other: Demand management measures	The company established in 2012 "Red Eléctrica Eficiente Recognition", a seal of recognition awarded to efficiency projects (promoting the efficient use of energy and resources). The award is for the responsible and main participants in the most significant projects in the year. In 2016, three projects were distinguished with the recognition: (1) Sustainable Stock Project (2) Real Time Automatic Management of the Hydroelectric Power Plant of El (3) REDCOM Project: Expansion of use of the MS Lync Communication (Please CR report 2016 page, 203)

Further Information

More information about management structure can be found in CR report 2016 (pg 18, 30-42). Information about remuneration of the CEO is available in the web site: http://www.ree.es/sites/default/files/downloadable/politica_retributiva_2017_eng.pdf Relevant information about Environmental Program can be found in EMAS Environmental Statement. (At the close of this questionnaire, the 2016 version of this statement was not uploaded yet in the website, being available the previous version referred to 2015: http://www.ree.es/sites/default/files/downloadable/declaracion_ambiental_emas_2015_eng.pdf Climate change Commitment: http://www.ree.es/sites/default/files/climate_change_commitment_march_2017.pdf

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC1.Governance/ree_corporate_governance_2016_0.pdf
https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC1.Governance/climate_change_commitment_march_2017.pdf

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Spain: Peninsula, Balearic and Canary Islands. (All REE SAU assets)	> 6 years	Risks are considered for short, medium and long term. As a result of risks assessment, relevant risks are included in the risk map of the company. Relevant risks are monitored and reported to the board of directors at least once a year. For long term risks/opportunities related to climate change, the company is also working in the climate strategy frame, within the context of Climate Change Adaptation works.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

Risks:
The risk Policy of REE establishes principles and guidelines to ensure the systematic identification of material risks that may affect the company's objectives and activities, applying uniform criteria.
An Audit Committee develops a periodical supervision of the internal risks management. Risks are monitored and reported to the board of directors, at least once a year.
Short/medium and long term risks related to climate change have been identified.
The company has identified three types of risks regarding climate change:
- Risks due to changes in legislation (Company level)
- Risks for the electric operation (Company level)
- Physical risks to assets (Asset level & company level)
According to REE Climate Change Strategy, where the company formalizes the commitment to work in adaptation projects, a study about “Climate risks for electrical infrastructures” has been developed. The objective of the study has been the identification of long term risks than can affect to the assets. Risk has been identified at a company level but also for the different assets (power lines &substations) taking into account their location in the different areas in Spain. This study is the first stage in the definition of a climate adaptation policy. Adaptation measures will be defined for all the company but also for specific assets.
Opportunities:
REE has a systematic process of strategic management for its business, which includes the identification of the opportunities for new business and new activities development. In the identification process, the analysis of internal capabilities, the company´s environment and the limitations set by the regulator are taken into account. Opportunities arising from climate change are also considered when identifying new business opportunities. Opportunities are identified in both levels (company and specific assets).The most important opportunities are related to the development of specific assets (investment).

CC2.1c

How do you prioritize the risks and opportunities identified?

Risks:
Prioritization of the risks is a conclusion from the risks assessment.
The risk Policy of REE establishes principles and guidelines to ensure the systematic analysis and assessment of risks that may affect the company's objectives and activities, applying uniform criteria.
The risks assessment takes into account:
a) the probability of its occurrence and
b) their potential impacts: financial and impacts on electricity supply, basic strategies and reputation.
Relevant risks are included in the risks map of the company. Relevant risks related to climate change are included in it.
The risks associated with changes in the physical parameters of climate change (risks for electric operations & physical risks to assets) are considered as long-term risks and, within the framework of the commitment to climate change and action plan, (where the commitment to work in adaptation projects is formalized), REE performs additional works.
An Analysis about "Climate risks for electrical infrastructures" has been developed. All the works related to adaptation projects are being developed by a specific multidisciplinary team (working – group) in the company.
An Audit Committee (sub set of the board) develops a periodical supervision of the internal risks management. Risks are monitored and reported to the board of directors, at least once a year.

Opportunities:
REE has a systematic process of strategic management for its business, which includes the identification and assessment of the opportunities for new business and new activities development. Three main aspects are taken into account in order to assess opportunities:
- Internal capabilities
- Environment
- Limitations set by the regulator
The opportunities arising from climate change are also considered when identifying and assessing new business opportunities.
Prioritization of opportunities is a result from this assessment.

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

i) Business strategy is defined taking into account the internal and external context of the company. Economic, regulatory and policy factors are considered. Due to the characteristics of the company, energy and climate change policies are the main drivers to define business strategy. In particular, European policy framework for climate and energy (40% gas reduction target compared to 1990 and at least 27% for renewable energy and 30 % energy savings by 2030) has been the main reference for the last revision of the business plan (2014-2019). The strategy has also been influenced by stakeholder’s demand of a higher commitment with climate change. Collecting and reporting information to influence the strategy is a Strategic planning director´s responsibility. The final strategy is approved by the board.
ii) Two examples:
a) European policy framework for climate and energy (which aims to make the EU's economy and energy system more competitive, secure and sustainable) and especially renewable energy integration goals have direct influence in REE´s business strategy: the infrastructures needed for this integration are included in REE investment planning 2014-2019. (Changes in EU renewable integration goals affects REE´s planning)
b) Stakeholder‘s demand of a higher commitment with climate change has leaded the company to define its climate change strategy (Climate Change Commitment and Climate Change Action Plan).
iii) As explained above (i), due to the characteristics of the company, the main aspects that influence the strategy are regulatory changes and climate policies. Besides, there are other aspects that have also influenced the strategy, such as the need for adaptation (adaptation is one of the principles of REE´s Climate Change Commitment)
iv/v) The main components of the strategy that have been influenced by Climate change are the ones that follow (most of them are components of the short and also for the long term strategy)
• Investment in the development of the transmission grid: The infrastructures planned are necessary to evacuate renewable energy as well as to improve energy efficiency of the system (new evacuation lines and mainly electricity interconnections that make possible a bigger integration of renewable energy)- Short term and long term planning
• Integration of renewable energy into the electrical system: REE started up the Control Centre of Renewable Energies (CECRE) in 2006, a pioneering centre, of world reference, in order to monitor and control renewable energies. The objective of the CECRE is to integrate the maximum amount of generation from renewable energy sources into the electricity system under secure conditions. Supporting renewable energy is one of the main business decisions that the company has made. REE aims to maintain leadership in this area. -Short and long term strategy
• Development of new infrastructures/devices: Energy storage in order to achieve better renewable integration-Short and long term strategy
• Other activities linked to increase efficiency of the electric system: boosting of demand management strategies, development of electric vehicle, smart grids, super grids, energy storage and etcetera. - Short and mainly long term strategy
In addition to these aspects there are others that have to be mentioned:
• Climate Change Strategy and Climate Change Action Plan: REE defined in 2011 a special Strategy for Climate Change (which has been reviewed in 2017, Climate Change Commitment). The strategy refers to all the aspects regarding REE activities as a TSO but also includes the aspects regarding the company Carbon Footprint and the commitment to reduce it. The Climate Change Action Plan includes targets for 2015-2020-2030 period and actions to achieve them. (See references attached). – The Commitment is part of a long term strategy. The Action Plan is for the short/medium term (2015-2020-2030) but also includes an H2050 position.
• Risk and opportunities are also considered in the business strategy (also Climate change risks and opportunities)-Short and long term.
vi) It is important to outline that REE has no competitors. REE is a regulated activity and transmission/operation of the electricity system is developed by only one company in Spain. Nevertheless the company´s aim is to maintain an outstanding position between the TSO companies in the world, so REE works very hard in the development of new technologies in order to increase renewable energy integration into the system and to improve energy efficiency by demand management projects, smarts grids & other issues as energy storage development.
vii) Most important business decisions made:
a. Influenced by European climate change and energy policy:
• Development of the transmission grid to integrate renewable energy,
• development of interconnections to facilitate renewable integration and to increase energy efficiency,
• support renewable energy integration (mainly through the CECRE)
• development of storage facilities/devices to help renewable integration and increase energy efficiency (e.g. Almacena Project)
b. During the reporting year, Influenced by stakeholders demands and Paris Agreement: revision of Climate Change Strategy (Commitment) and Climate Change Action Plan (includes targets regarding TSO activities, GHG emissions reduction and communication strategies). Main general targets are:
• to exceed 6,000,000 tons of equivalent CO2 avoided each year thanks to the construction of new facilities (as of 2020) and 8,000,000 tons of equivalent CO2 as of 2030
• Participation of renewable energy sources in demand coverage >40% (2020) and > 58% (2030)
• 2020: Reduction or offsetting of 1.45% of total scope 1 and 2 emissions (compared to base year 2015)
• 2030: Reduction or offsetting of 7% of total scope 1 and 2 emissions (compared to base year 2015)
•To make all stakeholders participant and inform them of REE’s commitment to climatic change
• To define Adaptation Plans that are suited to the company’s activities, in order to reduce the possible risks derived from the effects of climatic change & to identify any opportunities for the company as a result of climatic change and this Action Plan.
viii/ix) One of the main reasons to review and update Climate Change Strategy (Commitment and Action Plan) has been to adapt it to Paris Agreement and 2ºC scenario. EU targets for 2030 have been considered to define the new Plan (INDCs are in accordance to EU targets). Besides, REE´s emission reduction targets have been defined taking Science Based Targets as a reference. To calculate SBTs REE has applied the CSO (Centre for Sustainable Organizations) method that compares an organization's greenhouse gas emissions with specific targets grounded in science-based climate change mitigation scenarios (OECD carbon budget according to the level of ambition suggested in scenario RCP 2.6: required to keep the global temperature increase between 0.9-2.3° C).

CC2.2c

Does your company use an internal price on carbon?

No, but we anticipate doing so in the next 2 years

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations
Other

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Clean energy integration, electrification of the Spanish Power System	Support	REE works the Spanish Ministry of Industry to design the transmission grid planning for Spain. REE draws up an infrastructure proposal to the Ministry and the Ministry defines and approves the final planning. The development and structural reinforcement of the electricity transmission grid is necessary to achieve the following objectives: - Evacuation of the newly installed renewable generation facilities: in this way, it is possible to reduce the emission factor of the energy mix. - Supply power to new high speed train lines: contributing to the reinforcement of a more sustainable mobility model. - Increase grid efficiency by grid meshing and strengthen international interconnections and interconnections between islands. - Contribution to the electrification of the Spanish power system that facilitates the usage of renewable energy sources in a greater number of applications. REE main criteria for the proposal are efficiency and viability.	Transmission grid planning (it is a legal statement). The last planning (for the period 2015-2020) was approved the 16th October 2015.
Clean energy generation	Support	“REE, as Transmission System operator of the electric system in Spain, is engaged with the regulatory bodies in Spain and in Europe (through ENTSO-E, the European TSO association,) for the development of some Regulation than supports secure and affordable European energy transition (to low carbon scenario). REE is in charge of the proposal of Operational Procedures for the transmission system. Those Operational Procedures are very important, because they set some criteria for renewable connection and integration into the power system. REE also works within ENTSO-E in the development of the European "Network codes/Guidelines”, which are also necessary for renewable integration into the European power system.	POs (operational procedures) and Network Codes: Regarding European Network Codes and Guidelines, with the exception of 2 of them, which are under scrutiny of the European Parliament and the Council, the Completed set has been approved by Member States, publish in the Official Journal of the European Union and enter into force. Intensive national implemented tasks have been launched by REE.
Clean energy generation	Support with minor exceptions	REE is engaged with the regulatory bodies in Spain an in Europe (through ENTSO-E, the European TSO association), for the development of a new set of regulations in the frame of the "Winter Package", clean Energy for Europeans.	11 European legislative proposals dealing with renewables, energy efficiency, governance, electricity market and energy consumers in order to prepare the European power system for the 2030.
Other: Development of interconnections between Europe and MENA countries	Support with minor exceptions	- REE participates in Med-TSO (18 TSOs in the Mediterranean area). This organization works to promote electrical interconnections between EU and MENA (Middle East and North Africa) countries. (Electrical interconnections are very important to integrate renewable energy into the electricity system) The aim is to develop a coordinate methodology and planning process as well as promoting a regulatory framework in the MENA countries aligned with EU regulation.	Legislative solutions haven´t come from this Project yet.
Other: Climate Change (all aspects)	Support	- The Environmental Ministry in Spain has organized a two days' workshop in the new Spanish Climate Change legislation framework. REE has participated in some of the discussion, giving its experience and advice, mainly regarding aspects related to the transition to a low carbon emission energy model.	Legislative solution (Climate Change Spanish law) is expected for the end of the year or the beginning of 2018.
Other: Regulation on fluorinated greenhouse gases	Support with minor exceptions	- REE has participated in the consultation process and in some other activities. (Attending to public consultations, meeting some people involved in the process, explaining its position etcetera) - REE works with Spanish Environmental Ministry in the definition of better policies regarding SF6 emissions accounting and management. (REE has recently signed a Voluntary Agreement on this issue, and a Technical Working group is functioning in order to share knowledge and to collaborate in possible coming legislation.)	- F-gas European regulation: REE has supported proposed regulation with some exceptions regarding details about monitoring and reporting emissions. REE proposed some amendments to de different drafts. (The Regulation was finally approved in 2014) - Although it is not a legislative solution, requirements included in the Voluntary Agreement are mandatory for the signers. The aim of the agreement is to create a framework of collaboration between all the stakeholders related to SF6 in Spain and develop some specific requirements about Sf6 management (in order to complete the legislations, which is very general).

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
ENTSO-E	Consistent	ENTSO-E was created by the Regulation (EC) 714/2009 on conditions for access to the network for cross-border exchanges in electricity and is formed by most of European TSOs. REE as founded member of ENTSO-E, collaborates with this association in aspects regarding the European transmission grid development (Ten Year Network Development Plan), maintenance and operation at a European level. One of the main works as mentioned above is the elaboration of "Network codes". (Some of them refer to common requirements for generators also mandatory for renewable energy integration into the power system.).There are many works launched, as e-Highway2050, also mentioned above. REE also works with ENTSO-E to achieve a common and strong position in some environmental aspects. e.g. During 2013 work was focused on “Regulation on fluorinated greenhouse gases COM/2011/643"consultation process. The work was based mainly in lobbying activities. ENTSO-E supports the legislation with minor exceptions regarding monitoring and reporting emissions and training of professionals.	- For Networks codes, the work is developed by working groups where EC, ACER and all stakeholders have participation. - In the case of SF6 regulation, REE collaborated in the elaboration of the common position document and had the opportunity to make comments on it. (REE position was a bit different from the trade position in some aspects).”
CES (Club de Excelencia en Sostenibilidad)	Consistent	CES is a trade association of big companies from different sectors that work for a sustainable development growth.(Main position: fostering sustainable development). Its main roles are: collaborating with policy makers in the development of projects or acting as consultant when developing new legislation; benchmarking CR/environmental good practices, sharing experiences and promoting corporate responsibility (including climate change and energy efficiency issues).	REE has the same position as CES. Therefore, it is not necessary to influence CES´s position. REE works on the projects developed by the association. One of the most important works regarding new legislation has been the development of a study to foster domestic emissions reductions projects in Spain. REE, as a member, has participated in this project (This work has been used to developed the CLIMA project regulation in Spain, to promote emissions reduction projects) Other relevant works are those related to energy efficiency (an Energy Efficiency Guide about the adaptation of the Spanish companies to the new Energy Efficiency regulation , based on the Energy efficiency Directive 2012/27/EU has been recently published).
	Consistent		

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
Spanish Green Growth Group		The Spanish Green Growth Group is formed by a Group of companies and Spanish administration. The group proposes to work together (public administration and companies) to promote the creation of an efficient roadmap for a low-carbon economy. With this vocation to lead in the medium and long term, the companies which form the Group want to demonstrate their commitment to incorporating climate policies in their business strategies, because they are convinced that there is a huge opportunity for the Spanish economy to promote low-carbon green growth initiatives.	REE belongs to the SGGG and shares the position with the other members. REE participates in the initiatives developed in the framework of this group.
Foretica (Spanish representative of the World Business Council for Sustainable Development WBCSD	Consistent	Foretica is the Spanish partner for WBCSD, whose mission is to promote the integration of social, environmental and governance related aspects in the strategy and management of companies and organizations. The Climate Change Cluster, a working group formed by big companies, was launched in 2015. One of the objectives of this group is to bring the main trends in climate change to the Spanish context, through studies to generate practical solutions in collaboration with government and opinion leaders.	REE is a partner of Foretica and belongs to the Climate Change Cluster. REE shares the position with this group and participates in the meetings and initiatives developed by the cluster.

CC2.3e

Please provide details of the other engagement activities that you undertake

i) and ii) Description and topic of the engagement: REE has the commitment to promote energy efficiency among its stakeholders. Working with stakeholders on climate change issues can be very important in order to achieve some changes in public policies.

iii) Nature of engagement: participation in initiatives related to climatic change and energy efficiency through different actions (described below)

iv) Actions advocated as part of engagement:

1.- Actions addressed to society in general:
•Development of communication tools that are able to explain REE's positioning and best energy efficiency practices to society overall (web site, brochures, road shows)
•Information and awareness of energy efficiency in events where REE is participating as a speaker or sponsor, in visits to its facilities (CECOEL and substations) or in ventures with various entities.
•Participation in initiatives related to climatic change and energy efficiency, as well as applying for the rewarding and recognition of practices or projects in this field.
•Support to training and disclosure of knowledge about the electricity system and energy efficiency through collaboration agreements with universities.
•Development of specific communication contents for electrical vehicles (brochures, web site)
•Progress in the distribution of information related to the performance of the CO2 emissions ratio associated to Spain's electricity consumption (mainly website)
•Travelling exhibition entitled "A highway behind the wall socket", to spread knowledge about electricity system and energy efficiency among public.
•Engagement activities linked to REE Forest Project: workshops held in different schools & awareness campaigns
2.- Actions addressed to the administration (policy makers) in climate change and energy efficiency issues through voluntary agreements. e.g.:
•REE works with IRENA (International Renewable Energy Agency) through specific working groups aimed to improve renewable energy integration
•Agreement with Palma de Mallorca Council to optimize electricity consumption (energy efficiency measures will be developed)
•Participation in sustainable mobility initiatives (Mobility Observatory-CES, AEGFA-Association of Fleet managers- etc.)
3.- REE also has developed actions addressed to employees and supply chain. (e.g. "Every gesture counts" campaign, for contractors working on the premises of REE.

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

- Climate Change Commitment is approved by the chairman & CEO. The commitment has been communicated to the management team, to all employees and has been published. The management team is responsible to ensure that the proposed actions and activities developed in their units are in accordance to the company policies and standards. Climate Change Commitment is part of these policies, therefore, all the company´s direct and indirect activities (including those that influence policy) must be consistent with it.
- It is important to point out that a new Sustainability Model for REE has been recently approved. The sustainability model must be taken into account in every decision that may affect REE strategy. One of the cornerstones of the model is "Contribution to a decarbonized economy", that means that climate change commitment will be considered in any strategic decision for the company.
The Sustainability Steering Committee is in charge of the integration of all the sustainability principles (sustainability model, including climate change) into the strategic decisions of the company.
- Besides, the fulfilment of internal standards and regulation is reviewed through different auditing process (internal and third party processes), in order to certify the compliance. The accordance to climate change commitment is also reviewed in those processes.

Further Information

Please, see Climate Change Commitment attached (signed version is only available in Spanish). More information about Climate Change Action Plan is available on the website: http://www.ree.es/en/sustainability/sustainable-energy/energy-and-climate-change Information about the new Sustainability Model is not available in the web site at the moment of the submission of this questionnaire but it is expected to be published in the second half of the year.

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC2.Strategy/climate_change_commitment_march_2017.pdf

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target
Intensity target
Renewable energy consumption and/or production target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1+2 (market-based)	100%	1.45%	2015	844356	2020	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). General target: Reduction or offsetting of 1.45% of total scope 1 and 2 emissions (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as the operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the regulator (mandatory procedures) and according to them, it is not possible to operate the

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
								system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.
Abs2	Scope 1+2 (market-based)	100%	7%	2015	844356	2030	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). General target: Reduction or offsetting of 7% of total scope 1 and 2 emissions (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as the operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the regulator (mandatory procedures) and according to them, it is not possible to operate the system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.
Abs3	Scope 1+2 (market-based)	100%	38%	2015	844356	2050	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). Horizon 2050 positioning: Reduction or offsetting of 38% of total scope 1 and 2 emissions (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as the operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the regulator (mandatory procedures) and according to them, it is not possible to operate the system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.
Abs4	Scope 1	6.1%	15%	2015	2124	2020	No, but we are reporting another target which is science-based	Refers to emissions from REE vehicles (owned fleet vehicles and shared leasing vehicles, including management vehicles).
Abs5	Scope 1	6.1%	30%	2015	2124	2030	No, but we are reporting another target which is science-based	Refers to emissions from REE vehicles owned fleet vehicles and shared leasing vehicles, including management vehicles).
Abs6	Scope 2 (market-based)	0.67%	85%	2015	5441	2020	No, but we are reporting another target which is science-based	Refers to emissions associated to electricity consumption. (Scope 2= emissions from electricity consumption + emissions from transmission losses). It is very difficult to set targets regarding transmission losses because REE, as a regulated activity according to the explanation above, cannot control the main factors that affect them. For this reason, REE set specific targets for the emissions that can be managed by the company.
Abs7	Scope 2 (market-based)	0.67%	90%	2015	5441	2030	No, but we are reporting another target which is science-based	Refers to emissions associated to electricity consumption. (Scope 2= emissions from electricity consumption + emissions from transmission losses). It is very difficult to set targets regarding transmission losses because REE, as a regulated activity according to the explanation above, cannot control the main factors that affect them. For this reason, REE set specific targets for the emissions that can be managed by the company.
Abs8	Scope 3: Business travel	25%	20%	2015	347.13	2020	No, but we are reporting another target which is science-based	Refers to emissions from vehicles (rented cars, employees' cars & taxi)
Abs9	Scope 3: Business travel	25%	40%	2015	347.13	2030	No, but we are reporting another target which is science-based	Refers to emissions from vehicles (rented cars, employees' cars & taxi)

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (location-based)	100%	10%	Metric tonnes CO2e per megawatt hour (MWh)*	2015	0.0034043	2020	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). General intensity target: Reduction of 10% of total scope 1 and 2 emissions per MWh transmitted (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as the operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
									regulator (mandatory procedures) and according to them, it is not possible to operate the system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.
Int2	Scope 1+2 (market-based)	100%	27%	Metric tonnes CO2e per megawatt hour (MWh)*	2015	0.0034043	2030	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). General intensity target: Reduction of 27% of total scope 1 and 2 emissions per MWh transmitted (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the regulator (mandatory procedures) and according to them, it is not possible to operate the system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.
Int3	Scope 1+2 (market-based)	100%	60%	Metric tonnes CO2e per megawatt hour (MWh)*	2015	0.0034043	2050	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	The target is a science based target and has been calculated using CSO method (a method approved by the SBTi) but REE hasn't started the approval process yet. (It is planned for the second half of 2017). Horizon 2050 positioning: Reduction of 60% of total scope 1 and 2 emissions per MWh transmitted (compared to base year 2015). The target includes transmission losses (95% of Scope 1+Scope2 in base year). It is important to explain that REE, as operator of the electricity system cannot make decisions regarding the main factors that affects energy losses. Losses mainly depend on the geographical location units with respect to consumption areas, the generation mix, the size of the grid, the international power exchanges, the voltage level and the demand curve. The assessment of generation is based on market rules and performed by an independent body (not REE). REE must comply with operational procedures defined by the regulator (mandatory procedures) and according to them, it is not possible to operate the system with an energy losses reduction criteria. For this reason, it is very difficult for REE to establish targets to reduce emissions from energy losses. Nevertheless, REE has considered losses in the general targets, in order to be in accordance with SBTi criteria and to stress its commitment and ambition towards climate change.

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Decrease	1.45	Decrease		REE has defined its reduction targets in accordance to SBTi criteria. REE has defined absolute targets and intensity targets. Both are coherent. The objective is that reductions achieved at relative targets completion will be the reductions proposed as absolute targets. Changes in scope 3 emissions haven´t been anticipated yet. There are several science-based target setting methods. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method: This method uses a context-based carbon metric, that is to say, it compares an organization's greenhouse gas emissions with specific targets grounded in science-based climate change mitigation scenarios (OECD carbon budget according to the level of ambition suggested in scenario RCP 2.6: required to keep the global temperature increase between 0.9-2.3° C). Red Eléctrica's contribution to these emissions is contextualized by comparing its relative contribution to the global carbon budget with an external factor, in this case the GDP of the member countries of the OECD (Organization for Economic Co-operation and Development).
Int2	Decrease	7	Decrease		REE has defined its reduction targets in accordance to SBTi criteria. REE has defined absolute targets and intensity targets. Both are coherent. The objective is that reductions achieved at relative targets completion will be the reductions proposed as absolute targets. Changes in scope 3 emissions haven´t been anticipated yet. There are several science-based target setting methods. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method: This method uses a context-based carbon metric, that is to say, it compares an organization's greenhouse gas emissions with specific targets grounded in science-based climate change mitigation scenarios (OECD carbon budget according to the level of ambition suggested in scenario RCP 2.6: required to keep the global temperature increase between 0.9-2.3° C). Red Eléctrica's contribution to these emissions is contextualized by comparing its relative contribution to the global carbon budget with an external factor, in this case the GDP of the member countries of the OECD (Organization for Economic Co-operation and Development).
Int3	Decrease	38	Decrease		REE has defined its reduction targets in accordance to SBTi criteria. REE has defined absolute targets and intensity targets. Both are coherent. The objective is that reductions achieved at relative targets completion will be the reductions proposed as absolute targets. Changes in scope 3 emissions haven´t been anticipated yet. There are several science-based target setting methods. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method: This method uses a context-based carbon metric, that is to say, it compares an organization's greenhouse gas emissions with specific targets grounded in science-based climate change mitigation scenarios (OECD carbon budget according to the level of ambition suggested in scenario RCP 2.6: required to keep the global temperature increase between 0.9-2.3° C). Red Eléctrica's contribution to these emissions is contextualized by comparing its relative contribution to the global carbon budget with an external factor, in this case the GDP of the member countries of the OECD (Organization for Economic Co-operation and Development).

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment
RE1	Electricity consumption	2015	16169.7	6%	2016	60%	It is important to explain that, in order to simplify the calculation of this target, REE considers as renewable only the energy that is supplied (bought by REE) with a specific certification/qualification: Green Energy or Energy with Guarantees of Origin. For the energy supplied (bought by REE) without any qualification: only 4% of renewable is considered (as the information of the residual mix is not available, this approach has been defined, considering a very unfavourable situation). As small part of the energy consumed by the company comes directly from the transmission grid. In this case, % of renewable energy in the national electricity mix is considered.
RE2	Electricity consumption	2015	16169.7	6%	2017	70%	It is important to explain that, in order to simplify the calculation of this target, REE considers as renewable only the energy that is supplied (bought by REE) with a specific certification/qualification: Green Energy or Energy with Guarantees of Origin. For the energy supplied (bought by REE) without any qualification: only 4% of renewable is considered (as the information of the residual mix is not available, this approach has been defined, considering a very unfavourable situation). As small part of the energy consumed by the company comes directly from the transmission grid. In this case, % of renewable energy in the national electricity mix is considered.
RE3	Electricity consumption	2015	16169.7	6%	2020	80%	It is important to explain that, in order to simplify the calculation of this target, REE considers as renewable only the energy that is supplied (bought by REE) with a specific certification/qualification: Green Energy or Energy with Guarantees of Origin. For the energy supplied (bought by REE) without any qualification: only 4% of renewable is considered (as the information of the residual mix is not available, this approach has been defined, considering a very unfavourable situation). As small part of the energy consumed by the company comes directly from the transmission grid. In this case, % of renewable energy in the national electricity mix is considered.

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	20%	100%	REE has defined its reduction targets in accordance to SBTi criteria. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method to calculate its targets. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions: increase of electricity demand, renewable energy penetration and growth of the business (which means increase in SF6 installed). -For example: more than 95% of scope 1+2 are emissions from transmission losses and they are directly related to electricity demand (that depends on many social and economic factors)- The % defined as a target takes into account the evolution of main parameters that affects emissions. In 2016 these parameters have been very different from REE 2020's forecast. For this reason, although the target is achieved in 2016, emissions are expected to increase in the next few years. By implementing planned reduction measures, they are expected to finally decrease (1.45 %) in 2020.
Abs2	7%	100%	REE has defined its reduction targets in accordance to SBTi criteria. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method to calculate its targets. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions: increase of electricity demand, renewable energy penetration and growth of the business (which means increase in SF6 installed). -For example: more than 95% of scope 1+2 are emissions from transmission losses and they are directly related to electricity demand (that depends on many social and economic factors)- The % defined as a target takes into account the evolution of main parameters that affects emissions. In 2016 these parameters have been very different from REE 2020's forecast. For this reason, although the target is achieved in 2016, emissions are expected to increase in the next few years. By implementing planned reduction measures, they are expected to reduce by 7% in 2030.
Abs3	3%	23.5%	REE has defined its reduction targets in accordance to SBTi criteria. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method to calculate its targets. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions and all of them depend on many social and economic factors, which are really difficult to predict. As 2050 is a very long term horizon, forecasts are not very accurate so the evaluation of the progress of this target is very uncertain.
Abs4	20%	71.1%	Partial target: refers to emissions from REE vehicles. The main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2016, many measures have been established and consequently a good percentage of the target has been achieved. The evolution of the target is expected to be slower in the next years. Nevertheless, new measures and new reduction target can be defined when target will be completely achieved.
Abs5	7%	35.5%	Partial target: refers to emissions from REE vehicles. The main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2016, many measures have been established and consequently a good percentage of the target has been achieved. The evolution of the target is expected to be slower in the next years. For 2030 horizon, a minimum target has been defined but it will be reviewed at least in 2020 when new reduction measures and new targets will be approved.
Abs6	20%	81.7%	Partial target: refers to emissions from electricity consumption. The main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2016, many measures have been established (mainly the change of the main contracts of electricity supply into contracts with Guarantees of Origin) and consequently a good percentage of the target has been achieved. The evolution of the target is expected to be slower in the next years. Nevertheless, new measures and new reduction target can be defined when target will be completely achieved.
Abs7	7%	77.1%	Partial target: refers to emissions from electricity consumption. The main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2016, many measures have been established (mainly the change of the main contracts of energy supply into energy with Guarantees of Origin) and consequently a good percentage of the target has been achieved. The evolution of the target is expected to be slower in the next years. Measures and targets for 2030 horizon will be reviewed at least in 2020 when new reduction measures and new targets will be approved.
Abs8	20%	100%	Partial target: refers to emissions from business travel: only vehicles. As the Sustainable Mobility plan was approved in 2014, the main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2015 and 2016, many measures have been established and consequently the target has been achieved. The Sustainable Mobility plan is being reviewed in 2017, and new measures and targets will be considered to review emission reduction targets.
Abs9	7%	75.1%	Partial target: refers to emissions from business travel: only vehicles. As the Sustainable Mobility plan was approved in 2014, the main measures of reduction were planned to be developed in the first years of the period (2015-2020). During 2015 and 2016, many measures have been established and consequently a big percentage of the target has been achieved. The evolution of the target is expected to be slower in the next years. For 2030 horizon, a minimum target has been defined taking into account the growth of the activities, but it will be reviewed after the revision of the Sustainable mobility plan (2017-2018) and also in 2020, when new reduction measures and new target can be approved.
Int1	20%	96.3%	REE has defined its reduction targets in accordance to SBTi criteria. REE has defined absolute targets and intensity targets. Both are coherent. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions: increase of electricity demand, renewable energy penetration and growth of the business (which means increase in SF6 installed). The % defined as a target takes into account the evolution of main parameters that affects emissions and MWh transmitted. In 2016 this parameters have been very different from the ones estimated for 2020. For this reason, although the target is nearly achieved in 2016 relative emissions are expected to increase in the next few years. Planned emission reduction initiatives and renewable energy integration, are expected to help REE achieve its intensity reduction target of 10% in 2020.
Int2	7%	35.6%	REE has defined its reduction targets in accordance to SBTi criteria. REE has defined absolute targets and intensity targets. Both are coherent. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions: increase of electricity demand, renewable energy penetration and growth of the business (which means increase in SF6 installed). The % defined as a target takes into account the evolution of main parameters that affects emissions and MWh transmitted. In 2016 this parameters have been very different from the ones estimated for 2020. For this reason, although the progress of the target is very good, relative emissions are expected to increase in the next few years. Planned emission reduction initiatives and renewable energy integration are expected to help REE achieve its 2030 intensity reduction target of 27%. .
Int3	3%	16%	REE has defined its reduction targets in accordance to SBTi criteria. Red Eléctrica has applied the CSO (Centre for Sustainable Organizations) method to calculate its targets. For the calculations, REE has taken into account the evolution of different parameters in a short, medium and long term. Some of them are very important when estimating future emissions and energy transmitted. All of them depend on many social and economic factors which are really difficult to predict. As 2050 is a very long term horizon, forecasts are not very accurate so the evaluation of progress from this target is very uncertain.
RE1	100%	100%	In order to meet this target, REE undertook a change in the electricity suppliers contracts for the main working centres of the company. This initiative allowed the company to achieve this target. From April 2016 onwards, the electricity supplied to the main buildings provides from 100% renewable sources with Guarantees of Origin (100% renewable).
RE2	50%	86%	

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
RE3	20%	75%	REE has a renewable energy plan, in which the amount of renewable energy sourced from suppliers with Guarantees of Origin (100% renewable) is gradually increasing. By 2017, 70% of REE's electricity is expected to be sourced from renewable sources with GOs. REE has a renewable energy plan, in which the amount of renewable energy sourced from suppliers with Guarantees of Origin (100% renewable) is gradually increasing. By 2020, 80% of REE's electricity is expected to be sourced from renewable sources with GOs.

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Company-wide	REE´s activities enable Scope 2 emissions reduction for all electricity consumers in Spain because REE´s activities make possible the integration of renewable energy into the electricity system: the use of renewable energy is necessary to reduce the emission factor associated to the use of electricity. If renewable energy proportion in the energy mix increases, emission factor for electricity in Spain decreases. Therefore, the increase of renewable energy in the electricity system avoids CO2 emissions for all the electricity users in Spain and this reduction is reflected in their Scope 2 emissions. REE makes possible to integrate renewable energy by: - Building and maintaining infrastructures (lines and substations). That is essential to incorporate renewable energy into the electricity system - integrating the mayor quantity of renewable energy as possible into the system. (REE has created a special control center for this purpose) - carrying out many activities related to demand management, which are very important to increase the efficiency of the system, which means a reduction in CO2 emissions.	Avoided emissions	Other: Own methodology			Estimation of emissions avoided: at least 20438364 t CO2eq in 2016. It is important to point out that a slight reduction in emission factor for the electricity mix avoids a great amount of CO2 emissions, because is applicable to all the electricity consumed in Spain. (In 2016: 250132 Gwh) Assumption made for the estimations: REE activities are necessary to integrate renewable, so a new emission factor has been calculated without considering wind and photovoltaic energy and considering energy generated with gas instead. New emission factor: 0.296 t CO2/Mwh (Real emission factor: 0.214 t CO2/Mwh). - It is necessary to point out that the calculations are made assuming that gas would substitute wind and solar and REE´s activities are also necessary for integrating gas. Hydro generation hasn´t been taken into account either. So calculations have been made based in the better situation without renewable integration.

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	10	12400
To be implemented*	4	32
Implementation commenced*	11	28000
Implemented*	9	23000
Not to be implemented	0	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Fugitive emissions reductions	Replacement of old SF6 equipment, with high emission rate (leakage rate=2%) by new equipment with reduced emission rate (leakage rate=0.5%)	1076	Scope 1	Voluntary	5378	4318186	>25 years	>30 years	Annual savings are completely irrelevant comparing to the investment.
Energy efficiency: Building services	IT Systems: replacing old equipment by more efficient equipment (screens, PCs & laptops)	1	Scope 2 (market-based)	Voluntary	306	328000	>25 years	3-5 years	Annual savings are completely irrelevant comparing to the investment.
Energy efficiency: Building fabric	Efficiency measures in working centres: insulation, climatization and lighting (6 buildings)	24	Scope 2 (market-based)	Voluntary	13614	304394	21-25 years	16-20 years	
Low carbon energy purchase	Change in the contracts for electricity supply in the main working centres. From April 2016, the main buildings electricity supply is with Guarantees of Origin (100% renewable).	1869	Scope 2 (market-based)	Voluntary	0	0	<1 year	6-10 years	No relevant monetary costs or savings associated to this activity
Transportation: fleet	Sustainable Mobility Plan: Implementation of a fleet electric and hybrid	23	Scope 1	Voluntary	7647	500000	>25 years	3-5 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
	vehicles for the management team, with recharging points at work centres.								
Transportation: use	Sustainable mobility plan: launch of a corporate fleet of 12 electric vehicles for trips during the working day, improvement of communication tools (video conferences and remote accessibility platforms)	9	Scope 3	Voluntary	23340	190300	4-10 years	6-10 years	
Transportation: fleet	Sustainable mobility plan (Fleet +use): Improvement in the energy rating of the fleet vehicles (Green Fleet Accreditation) & optimization of their use through CARs application (Agile, Responsible and Safe Driving System).	10	Scope 1	Voluntary	9703	0	<1 year	3-5 years	No especial investment required. The requirements of high rate of efficiency are applicable to the new cars (natural renovation of the fleet). CARs application is already functioning and it doesn´t involve any additional cost.
Green project finance	Offsetting emissions: REE forest (planting trees and recovering degraded natural areas)	17908	Scope 1 Scope 3	Voluntary	0	171960	>25 years	21-30 years	
Other	Offsetting emissions: Buying VCUs: REE has offset emissions corresponding to the commuting of employees to and from work, for those employees who have responded to the mobility survey (57% of the employees)	2050	Scope 3	Voluntary	0	10617	>25 years	<1 year	

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	REE has defined some technical specifications (which are mandatory such as every internal procedure in the company) regarding energy efficiency. (Applying to buildings and substation´s equipment).
Dedicated budget for energy efficiency	REE created the seal "Red Eléctrica Eficiente" that distinguishes all those actions that promote a better use of energy resources. A special budget is dedicated for energy efficiency activities.
Dedicated budget for low carbon product R&D	REE works to improve as much as possible the integration of renewable energy into the grid. A lot of research is developed in this way. There are also other R&D projects related to energy efficiency. and
Dedicated budget for other emissions reduction activities	Special budgets are designated to activities regarding emissions reduction. (e.g. renovation of equipment, REE forest, SF6 management- including research to look for alternative to the use of SF6 gas- etcetera).
Employee engagement	Every year there is a piece of the budget dedicated to employee engagement (training and awareness).
Internal incentives/recognition programs	The fulfilment of some of the objectives related to climate change is provided with monetary incentives (for members of the board and also managers). In 2012, REE created "Red Eléctrica Eficiente Recognition" with the objective to recognise the better projects regarding energy efficiency carried out in the year. In 2016, three projects were distinguished with this recognition.

Further Information

3.1 In 2017, REE has review an approved a new version of its Climate Change Action Plan (2015-2020-2030)- Executive summary of the plan attached. It is important to mention that, in adition to the reduction targets reported in above, other relevant targets have been approved: - Sf6 emission reduction: a) REE has established a limit for accumulated emissions in the 2015-2020 period : total emissions must be less than 210000 t CO2 eq. The company will offset the excess of emissions. b)Maximum emission rate :0.5% (emissions over total installed gas).Assuming this reference is a high commitment since the average theoretical rate for REE equipment is around 1%. These targets cannot be reported in 3.1 because they are not exactly reduction targets but both of them are essential to reach the general targets reported in 3.1. - Offsetting emissions: a) Offset a minimum of 20000 t CO2 per year, thanks to Red Eléctrica Forest Project. b)Offsetting part of the of commuting emissions (corresponding to the emissions generated by those employees who answer the mobility survey) 3.3 It is important to point out that in question C3.3 projects regarding REE´s activities (transmission and operator of the electricity system) hasn´t been included. Projects related to climate change but not involving direct emissions reductions hasn´t been included either (e.g. projects regarding accounting emissions: GHG inventory, etcetera). 3.3. a The figures given don´t really correspond to number of individual projects. Projects have been aggregated by subject in order to simplify the information (e.g. Energy measures in buildings include different refurbishment projects). All the actions/measures regarding climate change are included in the Climate Change Action Plan (2015-2020-2030). Special budgets, responsibilities, timeframe & emissions targets are defined for these actions.(More than 100 actions). The implementation of most of the measures included in the plan (for H2020) has already commenced, the measures for H2030 are mostly under investigation. (That is the why there are very few projects classified as "to be implemented"). Information of new Climate Change Action Plan (2015-2020-2030) can also be found in the website: http://www.ree.es/en/sustainability/sustainable-energy/energy-and-climate-change

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC3.TargetsandInitiatives/CCA_executivesummary.pdf

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	198-205; 208, 209,212, 2013	https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/CC4.1/ree_corporate_responsibility_report_2016_v2.pdf	CR report is available in the website. http://www.ree.es/en/publications/sustainability-and-environment/corporate-responsibility-report-2016

Further Information

Information about REE response to climate change is also available in the website http://www.ree.es/en/sustainability/sustainable-energy/energy-and-climate-change In addition, climate change and GHG performance information is included in EMAs Environmental report. The 2016 statement is not published yet (at the date of the submission of CDP questionnaire). It will be published in July in the company website.

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty surrounding new regulation	CC1.Changes in SF6 regulation: Most significant risks are possible changes in SF6 regulation. SF6 fugitive emissions are the main source of GHG emissions in the company (422 t of SF6 installed). SF6 GWP is very high: 22800. Concern about F-gases is increasing, & therefore, regulation initiatives. Changes in SF6 regulation could affect the company. The main changes that could affect REE are the following: - Taxes on the gas bought or installed, taxes on the emissions: if taxes increase, costs for the company increase - Fines in case of accident: also increase costs - New requirements regarding equipment (switchgears): can affect operational costs but also investments (new facilities will be more expensive) - New requirements regarding management or reporting: increase costs and human resources needs.	Increased operational cost	1 to 3 years	Direct	About as likely as not	Low	Estimated financial implications: 1million Euros /year. Financial impacts are difficult to estimate due to the wide range of changes in regulation that could arise. For instance, taxes on new equipment could involve a bigger impact than taxes on emissions, accidents or changes in management procedures. According to REE risks management procedures, impacts on financial statements are estimated after taking the preventive measures/action plans (not before). The value expressed in the response is the estimated value of residual risk.	• Establishing alliances with stakeholders (government, companies in the sector and suppliers) to identify risks and opportunities and to be prepared for future requirements. Alliances allow sharing useful information and reaching common positions. Case study: In 2015 a "SF6 Voluntary Agreement" was signed by all actors involved in SF6 management (national level): REE, Environmental Ministry, SF6 & equipment manufacturers, electricity and waste management companies. This is the main tool to discuss and manage possible changes in national regulation (requirements/legal proposals). • Participating in new regulation development (national & European level): the company has the opportunity to discuss and sometimes modify aspects that could involve big impacts on its business. Besides, knowing future requirements in advance helps to prepare new possible frameworks. • Working to reduce emissions. Achieving better performance is useful to face any kind of tax regarding SF6 emissions. Reduction targets and improvement actions are included in Climate Change Action Plan. Case study: REE has a substitution plan for old SF6 equipment by lower leakage rate equipment. Renovations in 2015-2016 will manage to avoid1353 tons of CO2eq. • Research & development: working with international associations (EPRI) and suppliers to improve management procedures and tools and to be aware and support any new technology or more eco-friendly alternative to SF6.	* The main costs are those associated with equipment renewal, estimated in 3 million Euros/year. (Costs for 2016:4.318 million Euros) * Other costs could be taken into account: Training: 550000 Euros (only taking into account hours not worked by employees) * Research & development: 36000 in 2015 * Human resources costs (management, relationship with regulators etcetera): This activities are part of the normal work in the company, so their cost are no usually taken into consideration in the risk assessment. (They could be estimated in 20000 Euros)

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Tropical cyclones (hurricanes and typhoons)	CC2. Physical damages to the assets: 2.1 Damages to the pylons caused by the wind. The wind is the main factor that can affect the pylons of the transmission lines, strong wind can knock down the pylons and consequently affect grid availability (even put the line out of operation).	Increased operational cost	>6 years	Direct	More likely than not	High	Estimated financial implications > 50 million Euros This risk has been classified as a long term risk. In this case, financial implications have been estimated without considering preventive/corrective measures (inherent risk). The value expressed is based on the value of current insurance policies for damage to the assets of REE. It is necessary to point out that for REE this value is not relevant since, thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Only the insurance policies reduce financial implications to a maximum of 460000 Euros).	• Adaptation works: Given that climate change is a gradual process, REE considers that it is possible to perform the actions needed to adapt assets to the new situations that may arise. For that reason, REE has started to work in Climate change adaptation. (Adaptation is one of the principles in the Climate Change Strategy, approved in 2011 and reviewed for the last time in 2017). An analysis on "Climate risks for electrical infrastructures" has been completed (attached document). Climate variables which may affect the various infrastructures and possible risks have been identified. A first	* Cost of the analysis carried out regarding the development of REE climate change adaptation strategy: ("Climate risks for electrical infrastructures"): 20000 Euros * Costs regarding human resources (adaptation works): 15000 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								assessment has been made and some preventive measures have been proposed to further analysis (e.g. changes in their design parameters to decrease impacts). REE, according to the new Climate Change Action Plan will continue working on adaptation issues. • Besides, REE has taken out an insurance policy for damages in REE's facilities. This insurance reduces financial implications to a maximum of 460000 Euros.	
Other physical climate drivers	CC2. Physical damages to the assets: 2.2 Damages caused by lighting. The impact of the lightning can generate electrical surges in lines that can damage some of its elements and even affect the grid availability.	Increased operational cost	>6 years	Direct	Very unlikely	Medium	Estimated financial implications >50 million Euros This risk has been classified as a long term risk. In this case, financial implications have been estimated without considering preventive/corrective measures (inherent risk). The value expressed is based on the value of current insurance policies for damage to the assets of REE. It is necessary to point out that for REE this value is not relevant since, thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Only the insurance policies reduce financial implications to a maximum of 460000 Euros).	• Adaptation works: Given that climate change is a gradual process, REE considers that it is possible to perform the actions needed to adapt assets to the new situations that may arise. For that reason, REE has started to work in Climate change adaptation. (Adaptation is one of the principles in the Climate Change Strategy, approved in 2011 and reviewed for the last time in 2017). An analysis on "Climate risks for electrical infrastructures" has been completed (attached document). Climate variables which may affect the various infrastructures and possible risks have been identified. A first assessment has been made and some preventive measures have been proposed to further analysis (e.g changes in their design parameters to decrease impacts). REE, according to the new Climate Change Action Plan will continue working on adaptation issues. • Besides, REE has taken out an insurance policy for damages in REE's facilities. This insurance reduces financial implications to a maximum of 460000 Euros.	* Cost of the analysis carried out regarding the development of REE climate change adaptation strategy: ("Climate risks for electrical infrastructures"): 20000 Euros * Costs regarding human resources (adaptation works): 15000 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information
Change in precipitation extremes and droughts	CC2. Physical damages to the assets: 2.3 Damages caused by extreme rains Extreme rains can cause floods in substations or damages in pylon's foundations due to the erosion caused by the strong flows.	Increased operational cost	>6 years	Direct	Unlikely	Medium-high	Estimated financial implications >50 million Euros This risk has been classified as a long term risk. In this case, financial implications have been estimated without considering preventive/corrective measures (inherent risk). The value expressed is based on the value of current insurance policies for damage to the assets of REE. It is necessary to point out that for REE this value is not relevant since, thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Only the insurance policies reduce financial implications to a maximum of 460000 Euros).	• Adaptation works: Given that climate change is a gradual process, REE considers that it is possible to perform the actions needed to adapt assets to the new situations that may arise. For that reason, REE has started to work in Climate change adaptation. (Adaptation is one of the principles in the Climate Change Strategy, approved in 2011 and reviewed for the last time in 2017). An analysis on "Climate risks for electrical infrastructures" has been completed (attached document). Climate variables which may affect the various infrastructures and possible risks have been identified. A first assessment has been made and some preventive measures have been proposed to further analysis (e.g. changes in their design parameters to decrease impacts). REE, according to the new Climate Change Action Plan will continue working on adaptation issues. • Besides, REE has taken out an insurance	* Cost of the analysis carried out regarding the development of REE climate change adaptation strategy: ("Climate risks for electrical infrastructures"): 20000 Euros * Costs regarding human resources (adaptation works): 15000 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								policy for damages in REE's facilities. This insurance reduces financial implications to a maximum of 460000 Euros.	
Other physical climate drivers	CC2. Physical damages to the assets: 2.4 Flashovers affecting insulators. Flashovers can be produced due to the accumulation of pollutants on the insulators. (Increase of air pollution could be associated to changes in climate parameters: winds from the desert, humidity etc.) Flashovers can affect the grid availability.	Increased operational cost	>6 years	Direct	About as likely as not	Low	Estimated financial implications >50 million Euros This risk has been classified as a long term risk. In this case, financial implications have been estimated without considering preventive/corrective measures (inherent risk). The value expressed is based on the value of current insurance policies for damage to the assets of REE. It is necessary to point out that for REE this value is not relevant since, thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Only the insurance policies reduce financial implications to a maximum of 460000 Euros).	• Adaptation works: Given that climate change is a gradual process, REE considers that it is possible to perform the actions needed to adapt assets to the new situations that may arise. For that reason, REE has started to work in Climate change adaptation. (Adaptation is one of the principles in the Climate Change Strategy, approved in 2011 and reviewed for the last time in 2017). An analysis on "Climate risks for electrical infrastructures" has been completed (attached document). Climate variables which may affect the various infrastructures and possible risks have been identified. A first assessment has been made and some preventive measures have been proposed to further analysis (e.g. changes in their design parameters to decrease impacts). REE, according to the new Climate Change Action Plan will continue working on adaptation issues. • Besides, REE has taken out an insurance policy for damages in REE's facilities. This insurance reduces financial implications to a maximum of 460000 Euros.	* Cost of the analysis carried out regarding the development of REE climate change adaptation strategy: ("Climate risks for electrical infrastructures"): 20000 Euros * Costs regarding human resources (adaptation works): 15000 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information
Change in mean (average) temperature	CC2. Physical damages to assets: 2.5 Changes in conductors' properties. Dilation of conductors and increase of the sag. These changes could affect transmission capacity (see CC3. b) and also security 2. (Change in temperature extreme can also be considered as a driver for this risk)	Increased operational cost	>6 years	Direct	More likely than not	Medium-high	Estimated financial implications >50 million Euros This risk has been classified as a long term risk. In this case, financial implications have been estimated without considering preventive/corrective measures (inherent risk). The value expressed is based on the value of current insurance policies for damage to the assets of REE. It is necessary to point out that for REE this value is not relevant since, thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Only the insurance policies reduce financial implications to a maximum of 460000 Euros).	• Adaptation works: Given that climate change is a gradual process, REE considers that it is possible to perform the actions needed to adapt assets to the new situations that may arise. For that reason, REE has started to work in Climate change adaptation. (Adaptation is one of the principles in the Climate Change Strategy, approved in 2011 and reviewed for the last time in 2017). An analysis on "Climate risks for electrical infrastructures" has been completed (attached document). Climate variables which may affect the various infrastructures and possible risks have been identified. A first assessment has been made and some preventive measures have been proposed to further analysis (e.g. changes in their design parameters to decrease impacts). REE, according to the new Climate Change Action Plan will continue working on adaptation issues. • Besides, REE has taken out an insurance policy for damages in REE's facilities. This insurance reduces financial implications to a maximum of 460000 Euros.	* Cost of the analysis carried out regarding the development of REE climate change adaptation strategy: ("Climate risks for electrical infrastructures"): 20000 Euros * Costs regarding human resources (adaptation works): 15000 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information
Change in temperature extremes	CC3. Risk for electric operation: a. Changes in generation and demand patterns: Increase in	Other: Changes in operation of the electric system	3 to 6 years	Direct	More likely than not	Low-medium	Changes in operation of the electricity system don´t necessary involve financial implications. - If REE were not able to manage these changes, revenues could be slightly affected (REE is	As system operator, REE has established many procedures to manage possible changes: - Improvement of the transmission system. e.g. Construction of	These are some examples (it is not possible to report in this document all the costs associated to these activities): - Improvement of the

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	temperatures may lead to changes in demand patterns, mainly an increase in peak summer demand and a decrease in winter demand. b. Changes in transmission capacity of high-voltage lines c. Decrease of efficiency in thermal and nuclear power generation facilities. (Change in average temperature can also be considered as a risk driver, but is less important than changes in temperature extreme)						a regulated activity. Revenues are settled by low according to investments, operation & management costs and availaby of the transmission grid) but REE is working properly to be prepared to manage these changes without affecting availability of the transmission grid. For that reason the company doesn´t include any financial impact for this risk.	new facilities to increase transmission capacity, improve grid meshing and facilitate connections between electricity systems (674 km of new lines and 61new substation bays in 2016). - Strengthening of international connections e.g. Spain-France interconnection and new interconnections planned for the horizon beyond 2020 (interconnection in the Bay of Biscay and two more interconnections through Navarra and Aragón. All of them PCI Projects). - Optimization of the operation of the Control Centre of Renewable Energies: development of applications for real time analyses of the maximum renewable generation in the system (GEMAS+ Project 2017-2030). - Improvement of forecasting tools for non-manageable renewable energy production to reduce the impact of its variability. - Demand management initiatives: electric vehicle integration projects, active demand management project in domestic use, demand interruption program etc. e.g. PRICE project: through the deployment of demand-side management measures in 1000 households develops the active participation of citizens in the management of the electricity system. - R&D projects: e.g. energy storage ALMACENA, installation and operation of a lithium-ion prismatic battery.; ALISIOS, to evaluate the impact of a high capacity energy storage system on an isolated electricity system.	transmission system (2015): 246 million Euros (46.8 million Euros correspond to International connection with France) -Improvement of the transmission system (2016): 398.5 million Euros (3.5 million Euros correspond to International connection with France) -International connection (Spain-France): 361.5million Euros (Total costs until 2016) - PRICE Project: 717009 Euros - ALMACENA (Energy Storage R&D project): 1.13 million Euros - ALISIOS (Energy storage project): 222200 Euros - NOWCASTING (prediction model): 124960 Euros
Change in precipitation pattern	CC3. Risk for electric operation: d. Decrease of precipitation will lead to less regulation capacity based in hydro production. Changes in electricity generation patterns involve changes in the operation of the electricity system. Hydropower generation is very important to manage this system. Without enough hydro capacity is much more difficult to operate the system.	Other: Changes in operation of the electric system	>6 years	Direct	About as likely as not	Low-medium	Changes in operation of the electricity system don´t necessary involve financial implications. - If REE were not able to manage these changes, revenues could be slightly affected (REE is a regulated activity. Revenues are settled by low according to investments, operation & management costs and availaby of the transmission grid) but REE is working properly to be prepared to manage these changes without affecting availability of the transmission grid. For that reason the company doesn´t include any financial impact for this risk.	As system operator, REE has established many procedures to manage possible changes: - Improvement of the transmission system. e.g. Construction of new facilities to increase transmission capacity, improve grid meshing and facilitate connections between electricity systems (674 km of new lines and 61new substation bays in 2016). - Strengthening of international connections e.g. Spain-France interconnection and new interconnections planned for the horizon beyond 2020 (interconnection in the Bay of Biscay and two more interconnections through Navarra and Aragón. All of them PCI Projects). - Optimization of the operation of the Control Centre of Renewable Energies: development of applications for real time analyses of the maximum renewable generation in the system (GEMAS+ Project 2017-2030). - Improvement of forecasting tools for non-manageable	These are some examples (it is not possible to report in this document all the costs associated to these activities): - Improvement of the transmission system (2015): 246 million Euros (46.8 million Euros correspond to International connection with France) -Improvement of the transmission system (2016): 398.5 million Euros (3.5 million Euros correspond to International connection with France) -International connection (Spain-France): 361.5 million Euros (Total costs until 2016) - PRICE Project: 717009 Euros - ALMACENA (Energy Storage R&D project): 1.13 million Euros - ALISIOS (Energy storage project): 222200 Euros - NOWCASTING (prediction model): 124960 Euros

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								renewable energy production to reduce the impact of its variability. - Demand management initiatives: electric vehicle integration projects, active demand management project in domestic use, demand interruption program etc. e.g. PRICE project: through the deployment of demand-side management measures in 1000 households develops the active participation of citizens in the management of the electricity system. - R&D projects: e.g. energy storage ALMACENA, installation and operation of a lithium-ion prismatic battery.; ALISIOS, to evaluate the impact of a high capacity energy storage system on an isolated electricity system.	
Other physical climate drivers	CC3. Risk for electric operation: e. Changes in renewable energy production: due to changes in wind circulation patterns and periods of sunshine. Changes in electricity generation patterns involve changes in the operation of the electricity system.	Other:	>6 years	Direct	About as likely as not	Low	Changes in operation of the electricity system don´t necessary involve financial implications. - If REE were not able to manage these changes, revenues could be slightly affected (REE is a regulated activity. Revenues are settled by low according to investments, operation & management costs and availably of the transmission grid) but REE is working properly to be prepared to manage these changes without affecting availability of the transmission grid. For that reason, the company doesn´t include any financial impact for this risk.	As system operator, REE has established many procedures in order to manage possible changes: - Optimization of the operation of the Control Centre of Renewable Energies: development of the applications for real time analyses of the maximum renewable generation in the system (GEMAS+ Project 2017-2030). - Improvement of forecasting tools for non-manageable renewable energy production to reduce the impact of its variability for wind, photovoltaic and solar thermal (2015-2020). - Improvement of the transmission system. e.g. Construction of new facilities in order to increase transmission capacity, improve grid meshing and facilitate connections between electricity systems (674 km of new lines and 61new substation bays have been built in 2016). - Strengthening of international connections e.g. Spain-France interconnection that and new interconnections planned for the horizon beyond 2020 (direct current submarine interconnection in the Bay of Biscay and two more interconnections through Navarra and Aragón. All of them PCI Projects). - Demand management initiatives: electric vehicle integration projects, active demand management project in domestic use, demand interruption program etc. e.g. PRICE project: through the deployment of demand-side management measures in 1000 households develops the active participation of citizens in the management of the electricity system. - R&D+i projects: e.g. NOWCASTING (model for the prediction of direct and global solar radiation)	These are some examples (it is not possible to report in this document all the costs associated to these activities): - Improvement of the transmission system (2015): 246 million Euros (46.8 million Euros correspond to International connection with France) -Improvement of the transmission system (2016): 398.5 million Euros (3.5 million Euros correspond to International connection with France) -International connection (Spain-France): 361.5million Euros (Total costs until 2016) - PRICE Project: 717009 Euros - ALMACENA (Energy Storage R&D project): 1.13 million Euros - ALISIOS (Energy storage project): 222200 Euros - NOWCASTING (prediction model): 124960 Euros
Tropical cyclones (hurricanes	1.1. Physical risk: damage to the assets caused by	Wider social disadvantages	Up to 1 year	Direct	Unlikely	Low-medium	Financial implication: less than 1 million Euros over net profits. According to REE risks	Some specific actions have been developed, e.g.: - Design of the power lines taking into	It is not possible to report all the cost regarding the actions and

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
and typhoons)	extraordinary climatic phenomena (assets in Peninsula) affecting grid availability. This is a short/medium risk included in the risk map of the company. This risk can be bolstered by climate change. (It had already been identified by the company before analyzing climate change risks, that is the reason why it is reported as a different risk from CC2, CC2 is a long term risk specially driven by climate change)						management procedures, impacts on financial statements for short/medium term risks are estimated after taking the preventive measures/action plans (not before). The value expressed in the response is the estimated value of residual risk. In these risks, the financial impact is evaluated considering damage to facilities and fines from the local administration resulting from events as blackouts. Inherent risks would be higher than 100 million Euros (value based on the value of current insurance policies for damage to the assets of REE and damages to third party insurance policy).This value is not relevant for REE because thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Insurance policies reduce financial implications to a maximum of 460000 Euros).	account these risks (design over legal requirements) - Improvement of vulnerable existing lines - Emergency plan - Emergency pylons to face emergency situations Besides, REE has insurance policies for damages in REE's facilities and for damage to third part	policies mentioned. As an example it can be mentioned: - Improvement works of vulnerable facilities in 2014: 2.3 million Euros *Costs of the insurance policy: REE cannot make public this data because it is confidential information
Tropical cyclones (hurricanes and typhoons)	1.2. Physical risks: damage to the assets caused by extraordinary climatic phenomena in the Canary Islands affecting grid availability. This is a short/medium term risks included in the risk map of the company. This risk can be bolstered by climate change. (It had already been identified by the company before analyzing climate change risks, that is the reason why it is reported as a different risk from CC2, CC2 is a long term risk specially driven by climate change)	Wider social disadvantages	Up to 1 year	Indirect (Client)	Likely	High	Financial implication: less than 1 million Euros over net profits. According to REE risks management procedures, impacts on financial statements for short/medium term risks are estimated after taking the preventive measures/action plans (not before). The value expressed in the response is the estimated value of residual risk. In these risks, the financial impact is evaluated considering damage to facilities and fines from the local administration resulting from events as blackouts. Inherent risks would be higher than 100 million Euros (value based on the value of current insurance policies for damage to the assets of REE and damages to third party insurance policy).This value is not relevant for REE because thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Insurance policies reduce financial implications to a maximum of 460000 Euros).	Some specific actions have been developed, e.g.: - Infrastructures improvement plan. - Special maintenance plan. - Emergency plan - Emergency pylons to face emergency situations. Besides, REE has insurance policies for damages in REE's facilities and for damage to third part	The main costs are those related to: - Infrastructures improvement plan: 147 million Euros (2011 to 2015) - Maintenance plan: 25 million Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information
Uncertainty of physical risks	2. Fire risks associated with power lines. This risk is a short/medium term risk included in the risk map of the company. This risk can be bolstered by climate change . (It had already been identified by the company before analyzing climate change risks, that is the reason why it is reported as a different risk from CC2, CC2 is a long term risk specially driven by climate change)	Other: Environmental impact	Up to 1 year	Direct	More likely than not	High	Financial implications: more than 1 million Euros and less than 3 million Euros. (Over net profit). According to REE risks management procedures, impacts on financial statements for short/medium term risks are estimated after taking the preventive measures/action plans (not before). The value expressed in the response is the estimated value of residual risk. Inherent risk could be higher than 50 million Euros (value based on the value of current insurance policies for damage to environment).This value is not relevant for REE because thanks to the measures already applied, financial implications have been considerably reduced. (e.g. Insurance policies reduce financial implications to a maximum of 100000 Euros).	Some specific actions have been developed. e.g.: - Forest management procedure (for fire prevention) - Cutting & pruning program (to maintain safety corridors of electricity lines) - Signing cooperation agreements with public administrations responsible for forestry management (11 agreements) -R&D+i projects. e.g. VEGETA project: the objective is to define an algorithm, that based on the analysis of different variables of the vegetation, allows felling works to be more efficient. The project includes making detail inventories of vegetation in the safety corridors and identifying precisely compatible and non compatible species. - Emergency plan Besides, REE has insurance policies for	The main costs are: - Cutting & pruning program: 10-17 million Euros (every year) - Cooperation agreements: 1100000 Euros (every five years) -VEGETA project (2016-2017): 532350 Euros * Costs of the insurance policy: REE cannot make public this data because it is confidential information

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								damages to environment.	

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

i)REE has considered other issues regarding climate change that could affect its operations, revenues or expenditures:
•Driven by reputation:
- Changes in shareholders perception of the company could affect the value of the shares
- Changes in stakeholder's perception of the company could affect operations and revenues (infrastructures acceptance and approval procedures for new projects)
•Driven by social changes:
Changes in consumption patterns (electricity demand) could affect the system operation.
ii)The risk Policy of REE establishes guidelines to ensure the systematic analysis and assessment of risks that may affect the company.
The assessment takes into account the probability of occurrence and potential impacts: financial and impacts on electricity supply, basic strategies and reputation.
For long term risks, an additional assessment has been made in the frame of the Climate Change Strategy of the company.
iii)After a first analysis of the potential impacts derived from reputation or social changes, no relevant negative impacts have been identified (short term & long term).
-REE´s reputation is expected to improve: REE´s activities are very important to achieve a more sustainable energy system. If the role of the company is better known, its reputation will be better. Besides, Climate Change management is a very important issue for the company (Commitment and action Plan are prove of that) so, as the company´s performance is improving, reputation is expected to improve. In conclusion, there are not negative changes that could affect shares prices or stakeholders perception of the company.
-Consumer's behaviour is expected to change in a positive way regarding the operation of the system. If consumers became aware about their role regarding climate change, they will take active part in demand management in the same direction as the actions that REE is developing in his moment. A more conscious consumer (more conscious society) is better for the system operation.
As REE is a regulated company (revenues are fixed by law and many activities of the company are ruled by mandatory procedures), it is not affected by factors as market changes, consumers attitude or reputation in the same way as non regulated companies.
In conclusion, the company is not exposed to substantial risks regarding other climate-related developments.

Further Information

REE has identified different risks driven by climate change. Risks are assessed according to an internal methodology (that takes into account the probability of occurrence and the potential impacts) and, if they are relevant, they are included in the company´s risks map. The risks included in the map are the following: CC1. Changes in regulation (SF6); CC2. Physical risks to the assets & CC3. Risks for the operation of the electricity system. There are other risks that the company had identified before the development of the Climate Change risks assessment. Those risks were already included in the risk map of the company. They have been also reported as climate change risks because they can clearly be bolstered by climate change (1.1, 1.2 &2).

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC5.ClimateChangeRisks/Adaptación al cambio climático REE_040612-DEF.PDF

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
International agreements	O1. Investment in new facilities: Transmission grid development (increase of investments). REE is a regulated company, whose remuneration is defined by law. This remuneration is directly and mainly related to the investment in infrastructures development. For this reason this is clearly the most important opportunity for REE. Within the frame of 20-20-20 & 40-27-30 (and 15% international interconnections) European targets, a lot of work is been developed in order to reinforce European grids and interconnections between the different countries. International agreements regarding these issues involve an increase of REE investments because new infrastructures will be needed.	Investment opportunities	3 to 6 years	Direct	Virtually certain	High	REE has identified investment opportunities in the short term (2015-2020) and some investment opportunities in a longer term (beyond 2020). In addition to the recovering of the investment, REE obtains benefits from infrastructures during the first 40 years since they are put into service. •For 2015-2020, investment is necessary to connect renewable generation, increase power for rail transport, improve grid efficiency and interconnect isolated systems (islands). The annual benefits due to these investments, for 40 years since the new infrastructures are put into service, would equal 7-15% of the total profit expected for 2020. •Beyond 2020: investment will be necessary mainly to increase electric interconnection between Spain and France. The annual benefits due to these	- First, REE works with national, European and international bodies (authorities and other stakeholders) to identify and get all the information and drivers (i.e. future requirements) that are necessary to propose the future infrastructure planning. - Then the planning department works to define the different infrastructures (mainly lines and substations) that could give the solution to each of the requirements (or future/expected requirements). - REE makes a proposal for the planning to the Spanish Ministry of Industry (Electricity transmission is a regulated activity in Spain. This means that Energy planning is defined by the Spanish government, Ministry of Industry. REE only makes the proposal). - REE also works and negotiates with regional and national authorities with the aim to develop the best planning to fulfil all the requirements. Once the Ministry approves the	Management cost: - All the works related to the definition of the infrastructure planning are part of the usual work in REE. There is a special unit for managing these issues. Estimated human resources costs:1.3 million Euros/year

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							investments, for 40 years since the new infrastructures are put into service, would equal 20% of the annual profit expected for 2020.	Energy planning, the development of the infrastructures included in it is mandatory for REE. i.e. REE has been working with the Ministry in the Electricity planning for 4 years. The electricity planning for 2015-2020 was finally approved in October 2015.	
Renewable energy regulation	O1.Investment in new facilities: Transmission grid development (increase of investments). REE is a regulated company, whose remuneration is defined by law. This remuneration is directly and mainly related to the investment in infrastructures development. For this reason this is clearly the most important opportunity for REE. Renewable energy regulation involves an increase in renewable energy generation. New renewable needs new grids to be integrated into the system.	Investment opportunities	3 to 6 years	Direct	Virtually certain	High	REE has identified investment opportunities in the short term (2015-2020) and some investment opportunities in a longer term (beyond 2020). In addition to the recovering of the investment, REE obtains benefits from infrastructures during the first 40 years since they are put into service. •For 2015-2020, investment is necessary to connect renewable generation, increase power for rail transport, improve grid efficiency and interconnect isolated systems (islands). The annual benefits due to these investments, for 40 years since the new infrastructures are put into service, would equal 7-15% of the total profit expected for 2020. •Beyond 2020: investment will be necessary mainly to increase electric interconnection between Spain and France. The annual benefits due to these investments, for 40 years since the new infrastructures are put into service, would equal 20% of the annual profit expected for 2020.	- First, REE works with national, European and international bodies (authorities and other stakeholders) to identify and get all the information and drivers (i.e. future requirements) that are necessary to propose the future infrastructure planning. - Then the planning department works to define the different infrastructures (mainly lines and substations) that could give the solution to each of the requirements (or future/expected requirements). - REE makes a proposal for the planning to the Spanish Ministry of Industry (Electricity transmission is a regulated activity in Spain. This means that Energy planning is defined by the Spanish government, Ministry of Industry. REE only makes the proposal). - REE also works and negotiates with regional and national authorities with the aim to develop the best planning to fulfil all the requirements. Once the Ministry approves the Energy planning, the development of the infrastructures included in it is mandatory for REE. i.e. REE has been working with the Ministry in the Electricity planning for 4 years. The electricity planning for 2015-2020 was finally approved in October 2015.	Management cost: - All the works related to the definition of the infrastructure planning are part of the usual work in REE. There is a special unit for managing these issues. Estimated human resources costs:1.3 million Euros/year
Other regulatory drivers	O1.Investment in new facilities: Transmission grid development (increase of investments). REE is a regulated company, whose remuneration is defined by law. This remuneration is directly and mainly related to the investment in infrastructures development. For this reason this is clearly the most important opportunity for REE. Changes in regulation regarding other energy matters such as energy storage or mobility policies (i.e. development of High speed train) involve the need of the grid development and	Investment opportunities	3 to 6 years	Direct	Very likely	High	REE has identified investment opportunities in the short term (2015-2020) and some investment opportunities in a longer term (beyond 2020). In addition to the recovering of the investment, REE obtains benefits from infrastructures during the first 40 years since they are put into service. •For 2015-2020, investment is necessary to connect renewable generation, increase power for rail transport, improve grid efficiency and interconnect isolated systems	- First, REE works with national, European and international bodies (authorities and other stakeholders) to identify and get all the information and drivers (i.e. future requirements) that are necessary to propose the future infrastructure planning. - Then the planning department works to define the different infrastructures (mainly lines and substations) that could give the solution to each of the requirements (or future/expected requirements). - REE makes a proposal for the planning to the Spanish Ministry of Industry (Electricity	Management cost: - All the works related to the definition of the infrastructure planning are part of the usual work in REE. There is a special unit for managing these issues. Estimated human resources costs:1.3 million Euros/year

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	also other investment opportunities such as pumping installations.						(islands). The annual benefits due to these investments, for 40 years since the new infrastructures are put into service, would equal 7-15% of the total profit expected for 2020. •Beyond 2020: investment will be necessary mainly to increase electric interconnection between Spain and France. The annual benefits due to these investments, for 40 years since the new infrastructures are put into service, would equal 20% of the annual profit expected for 2020.	transmission is a regulated activity in Spain. This means that Energy planning is defined by the Spanish government, Ministry of Industry. REE only makes the proposal). - REE also works and negotiates with regional and national authorities with the aim to develop the best planning to fulfil all the requirements. Once the Ministry approves the Energy planning, the development of the infrastructures included in it is mandatory for REE. i.e. REE has been working with the Ministry in the Electricity planning for 4 years. The electricity planning for 2015-2020 was finally approved in October 2015.	
Voluntary agreements	O2. Voluntary Agreements with stakeholders are very important for REE because help the company to improve performance and avoid costs. For REE, the main stakeholders regarding regulation matters are public administrations, other companies in the sector and suppliers. Voluntary Agreements regarding regulation have the aim to work in the following aspects: - Revision of future/proposed legislation: this work is necessary to identify risks (to reduce or avoid them) and opportunities from the new regulation and be prepared for future requirements (i.e. taxes) -Contribution in the definition of new regulation: to propose amendments or improvements based in common positions. -Definition of reporting procedures, that increase efficiency in accounting and reporting works - Share knowledge that can involve a better performance and reduce operational costs	Reduced operational costs	Up to 1 year	Direct	Very likely	Low	Annual financial opportunities are less than 1 million Euros. Financial opportunities are linked to reduction of operational costs, prevention of penalties and increase of efficiency in management.	- REE is continuously working with stakeholders to identify improvement opportunities. - When an opportunity to collaborate is identified, REE works with the interested party/parties to define and formalize an Agreement. - REE is especially interested in establishing Agreements with public administrations. Case study: Voluntary Agreement signed by REE, the Spanish Ministry of Environment (Climate Change Spanish Office), manufactures, electricity distribution companies end waste management companies, with the aim to reduce emissions. A working group formed by all signers. Some of the functions of this group are: reviewing new requirement or legal proposals, sharing knowledge, defining solutions for SF6 management and participating in national SF6 emissions inventory elaboration. All this work helps REE to improve SF6 management.	By the moment no specific budget is associated to any Voluntary Agreement about climate change issues. Works are part of REE´s day-by-day activities. Human resources' costs (estimated): 125000 Euros
General environmental regulations, including planning	O3. Changes in energy efficiency regulation could involve the necessity to adapt REE' s buildings and assets (mainly substations) to the new criteria. This is an opportunity to renew old installations, improving them and increasing their efficiency (energy savings).	Reduced operational costs	1 to 3 years	Direct	Likely	Low	Financial opportunities would be mainly related to the reduction in energy consumption. REE has identified that there is no clear financial opportunities linked to the application of efficiency measures in old assets. Usually, actions needed	REE works in different ways: - REE is up to date regarding energy efficiency legislation, including texts in development. - REE works with other organizations, sharing knowledge and good practices regarding new regulation about energy efficiency. e.g. REE has worked with CES	- Human resources costs regarding the following of legislation and identifying measures: 300000 Euros/year - Energy management equipment and energy audits costs: 200000 Euros in 2013; 70000 Euros in 2014, 54000Euros in 2016 -

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							are expensive and pay -back periods are very long. For the new assets, annual financial opportunities identified would be lower than 1 million Euros (not relevant).(It must be taken into account that the percentage of total spend in energy is less than 5%).	(Club de Excelencia de Sostenibilidad) in the publication of an Energy Efficiency Guide about the adaptation of the Spanish companies to the new Energy Efficiency regulation , based on the Energy efficiency Directive 2012/27/EU has been recently published). - REE works to identify possible measures to improve energy efficiency, mainly in buildings and equipment. e.g REE has installed energy management equipment in working centers and energy audits are being done in many working centers. - REE applies energy efficiency measures in buildings e.g. Refurbishment of old offices.	Efficiency measures in buildings in 2015: 226342 Euros; in 2016: 304394 Euros
Emission reporting obligations	O4. Emissions reporting obligations involve a deep work to identify emissions sources and data. According to REE's experience, this work leads to an increase the knowledge of the company (processes) and helps to identify improvement opportunities.	Reduced operational costs	1 to 3 years	Direct	Likely	Low-medium	Annual financial opportunities are less than 1 million Euros. Improving the knowledge of the company could lead to improvement opportunities but, by the moment, no mayor financial implications have been identified.	REE works in different ways: - REE is up to date regarding emission´s reporting obligations and demands from stakeholders. - REE works to improve its emission´s reporting: reviewing possible sources and data collection procedures. e.g. A special multidisciplinary working group is working on this issue since 2013. (Carbon footprint multidisciplinary working group). - REE's GHG inventory is verified by a third part.	- Human resources costs: 100000 Euros/year - Costs of installing energy management equipment are linked to emission reporting: 180000 Euros in 2013; 20000 Euros in 2014 - Cost of GHG inventory verification:25000 Euros/year.

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	O5. REE doesn´t have direct clients (REE is a regulated company and it is the Spanish government who pays for the activities of transmission an operation). In spite of this fact, reputation is important for the company. In this sense, REE works to be present in the most important sustainability Indexes. a-Opportunity to influence the price of the shares or to improve funding opportunities	Increased stock price (market valuation)	1 to 3 years	Direct	More likely than not	Low	Increase in the price of the share and improve financing opportunities (minor financial implications, by the moment) Annual financial opportunities are less than 1 million Euros.	REE works to improve reputation: - REE is continuously working with stakeholders to identify their requirements. e. g. REE develops an annual survey to stakeholders. - REE evaluates Sustainability Indexes requirements and results from the evaluation processes in order to identify improvement opportunities. e. g. Benchmark works with other transmission companies and specific studies about the results obtained in DJSI -REE works to improve information to stakeholders, (better information and verified data): e.g. Verification of CR report, verification of GHG inventory; participation in seminars and conferences; traveling exhibition "A highway behind the wall socket"; organization of technical visits to CECRE (Renewable energy control center) - REE works to improve its performance. e. g. REE has developed a Climate	- There are some technical units working on this subject. Human resources estimated cost: 300000Euros/year - Costs related to reporting (i.e. Verification of the GHG inventory: 25000 Euros; energy management equipment: 20000 Euros in 2014) - Climate Change projects to improve relations with stakeholders and reputation e.g. REE Forest 2009-2016: 1795914 Euros

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	O5.Although REE doesn´t have direct clients (REE is a regulated company and it is the Spanish government who pays for the activities of transmission an operation), reputation is important for the company. In this sense, REE works to be present in the most important sustainability Indexes. b - Opportunity to improve authorization processes for new infrastructures (a better image of the company is important to improve the relationship with administrations and other relevant stakeholders in the permitting processes (such as NGOs and public in general)	Reduced operational costs	1 to 3 years	Direct	About as likely as not	Low	Reduce operational costs: reducing permitting time. (Not quantified but according to the assessment, no major financial implications)	Change Action Plan where targets and actions to achieve them have been established. -REE develops projects that improve relationship with stakeholders (e.g. REE Forest) REE works to improve reputation: - REE is continuously working with stakeholders to identify their requirements. e. g. REE develops an annual survey to stakeholders. - REE evaluates Sustainability Indexes requirements and results from the evaluation processes in order to identify improvement opportunities. e. g. Benchmark works with other transmission companies and specific studies about the results obtained in DJSI -REE works to improve information to stakeholders, (better information and verified data): e.g. Verification of CR report, verification of GHG inventory; participation in seminars and conferences; traveling exhibition "A highway behind the wall socket"; organization of technical visits to CECRE (Renewable energy control center) - REE works to improve its performance. e. g. REE has developed a Climate Change Action Plan where targets and actions to achieve them have been established. -REE develops projects that improve relationship with stakeholders (e.g. REE Forest)	- There are some technical units working on this subject. Human resources estimated cost: 300000Euros/year - Costs related to reporting (i.e. Verification of the GHG inventory: 25000 Euros; energy management equipment: 20000 Euros in 2014) - Climate Change projects to improve relations with stakeholders and reputation e.g. REE Forest 2009-2016: 1795914 Euros
Reputation	O5.Although REE doesn´t have direct clients (REE is a regulated company and it is the Spanish government who pays for the activities of transmission an operation), reputation is important for the company. In this sense, REE works to be present in the most important sustainability Indexes. c - Working to fulfill stakeholder demands about climate change (reporting, setting target for emissions reducing etcetera) also involve the opportunity to increase the knowledge of the company. Setting reduction targets involve improvement of processes and energy savings.	Reduced operational costs	3 to 6 years	Direct	More likely than not	Low	Annual financial opportunities are less than 1 million Euros. No mayor financial implications have been identified. In general all actions to achieve better climate reporting and performance do not involve any financial benefit. (As REE is a regulated activity, revenues are fixed by law) or cost saving (actions usually involve big costs with long pay-back periods)	REE works to improve reputation: - REE is continuously working with stakeholders to identify their requirements. e. g. REE develops an annual survey to stakeholders. - REE evaluates Sustainability Indexes requirements and results from the evaluation processes in order to identify improvement opportunities. e. g. Benchmark works with other transmission companies and specific studies about the results obtained in DJSI -REE works to improve information to stakeholders, (better information and verified data): e.g. Verification of CR report, verification of GHG inventory; participation in seminars and conferences; traveling exhibition "A highway behind the wall socket"; organization of technical visits to CECRE (Renewable energy control center) - REE works to improve its performance. e. g. REE has developed a Climate Change Action Plan where targets and actions to achieve them have been established. -REE develops projects that improve relationship with stakeholders (e.g. REE Forest).	- There are some technical units working on this subject. Human resources estimated cost: 300000Euros/year - Costs related to reporting (i.e. Verification of the GHG inventory: 25000 Euros; energy management equipment: 20000 Euros in 2014) - Climate Change projects to improve relations with stakeholders and reputation e.g. REE Forest 2009-2016: 1795914 Euros

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

i) REE has considered other issues regarding climate change that could affect its operations, revenues or expenditures.
- Changes in physical parameters that could affect energy generation, infrastructures and demand energy patterns (mainly increase of the demand due to the increase of the temperature)
ii) REE has a systematic process of strategic management of its business which includes the identification of risks and opportunities. Changes in physical parameters have been considered and assessed in this process.

iii) As REE doesn´t produce energy no opportunities have been identified as a result of the assessment (no opportunities linked to energy generation or to the increase of energy demand). On the contrary, REE has identified some risks derived from this changes (all of them included in module 5).

Further Information

As a result of the process of strategic management, which includes the identification of opportunities for new business and activities development, REE identified the opportunity to invest in new facilities as the main opportunity for its business: O1. As explained above, the investment in new infrastructures is mainly linked to changes in regulations and policies related to climate change. Other opportunities have been identified and analyzed (O2, O3, O4 & O5), but their financial implications are not relevant, so they are considered as minor opportunities compared to O1. Nevertheless they have been reported in CC 6.1whith the aim to show that they have been taken into consideration.

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Thu 01 Jan 2015 - Thu 31 Dec 2015	34797
Scope 2 (location-based)		
Scope 2 (market-based)	Thu 01 Jan 2015 - Thu 31 Dec 2015	809559

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

For some emission sources, REE has developed its own methodology to calculate emissions. This is based in GHG Protocol and in the Spanish Climate Change Office methodology.
- SF6 emissions: REE has implemented a new calculation process based on direct measurements of real SF6 leakage data, that are obtained from direct measurements of the gas used to refill the equipment and the gas recovered from the equipment in maintenance works. Emissions resulting from accidents and emissions linked to the end of life of equipment are also taken into account.
- Emissions from electricity consumption are calculated using the emission factor applicable to each case (market based): a) For electricity supplied by distribution companies: contract information or information supplied by Environmental Ministry for each company b) For electricity directly consumed from the transmission grid REE uses its own emission factor according to the annual generation mix in Spain. This factor is calculated every year by REE (REE is the operator of the Spanish electricity system).
- Emissions from electricity losses: REE uses its own emission factor.

A summary describing the complete methodology is attached to this questionnaire.

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	0.265	metric tonnes CO2e per MWh	IDAE (Spanish institute for Energy Efficiency)
Diesel/Gas oil	2.508	kg CO2e per liter	Spanish Climate Change Office OECC (version published in October 2016)
Other: Petrol	2.205	kg CO2e per liter	Spanish Climate Change Office OECC (version published in 2016)
Electricity	0.214	metric tonnes CO2e per MWh	REE´s methodology (emission factor for Spanish mix 2016)
Electricity	0.38	metric tonnes CO2e per MWh	Spanish Climate Change Office OECC (version published in October 2016. Emission factor for Endesa)
Electricity	0.35	metric tonnes CO2e per MWh	Spanish Climate Change Office OECC (version published in October 2016. Emission factor for Gas Natural
Electricity	0.21	metric tonnes CO2 per liter	Spanish Climate Change Office OECC (version published in October 2016. Emission factor for Iberdrola)
Electricity	0	metric tonnes CO2e per MWh	Supplier information: Energy with Guarantees of Origin

Further Information

REE methodology has been reviewed by a third party (GHG inventory has been verified in 2016 by PWc in accordance to ISAE 3410 published by IAASB). Emission factors have been updated in 2016 in accordance to the methodology published by the Spanish Ministry of Environment (OECC, Spanish Climate Change Office and IDAE, Spanish Institute for Energy Efficiency).

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Independent_Ass_Report_REE_2016_signed.pdf
https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC7.EmissionsMethodology/Inventory_of_CO2_emissions_REE_scope_and_methodology_2016.pdf

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

31500

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are not reporting a Scope 2, location-based figure	We are reporting a Scope 2, market-based figure	REE has changed the calculation methodology for Scope 2 emissions. From 2016, they are reported "market based". (Base line year , 2015, has been recalculated according to this criteria).

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
	738038	REE has changed the calculation methodology for Scope 2 emissions. From 2016, they are reported "market based". (Base line year, 2015, has been recalculated according to this criteria).

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Data Gaps Metering/ Measurement Constraints Data Management	SF6 emissions: REE applies (since 2015) a new methodology based in gas refilling data compilation. Although a third party has verified the data obtained, the methodology is still being improved.
Scope 2 (location-based)			
Scope 2 (market-based)	Less than or equal to 2%	Data Gaps Metering/ Measurement Constraints	Due to some constraints, some meters haven´t work properly during all the reporting period (2016)

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Independent_Ass_Report_REE_2016_signed.pdf	All (1-3, Appendix)	ISAE 3410	100

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Market-based	Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Independent_Ass_Report_REE_2016_signed.pdf	All (1-3, Appendix)	ISAE 3410	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Emissions reduction activities	Information included in CR report has been verified by third party according to ISAE 3000 (limited assurance). CR report (pg. 201-205): measures to reduce SF6 emissions, energy efficiency measures in buildings and in mobility. Savings verified (pg 2013): Net savings: Savings due to efficiency measures in fleet vehicles and in management vehicles, savings due to the use of efficiency taxis and savings due to contracting green electricity supply ("Guarantee of origin") Annual savings: savings due to efficiency measures in work centers (insulation, climatization and lighting), IT efficiency measures (renewal of desktop equipment, laptops and monitors) and reductions in SF6 emissions.
Year on year emissions intensity figure	Information included in CR report has been verified by third party according to ISAE 3000 (limited assurance). GHG emissions intensity data are included in pg.213

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

Further Information

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC8.EmissionsData(1Jan2016-31Dec2016)/ree_corporate_responsibility_report_2016_v2.pdf

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1
Do you have Scope 1 emissions sources in more than one country?

No

CC9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By GHG type
By activity

CC9.2c
Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	2120
SF6	28770
HFCs	610

CC9.2d
Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Fugitive emissions from electrical equipment	28770
Fugitive emissions from air conditioning equipment	610
Mobile combustion	1898
Stationary combustion (Generating sets)	222

Further Information

Emissions breakdown: - SF6, air conditioning and generating sets data are registered individually from each single equipment. Therefore, emissions could be reported by facility if necessary, but REE doesn't consider this kind of breakdown useful to manage emissions. (Nevertheless, if the company is required to report emissions from a single facility, it is possible to do it because data are available). - REE vehicles (mobile combustion): REE registers data from each car. In this case, emissions are not related to any specific facility. Emissions can also be reported by area (organizational boundary)

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC9.Scope1EmissionsBreakdown(1Jan2016-31Dec2016)/Inventory_of_CO2_emissions_REE_scope_and_methodology_2016.pdf
https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC9.Scope1EmissionsBreakdown(1Jan2016-31Dec2016)/Independent_Ass_Report_REE_2016_signed.pdf

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1
Do you have Scope 2 emissions sources in more than one country?

No

CC10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By facility
By activity

CC10.2b
Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Head Offices (Main offices, include control centre)		687
Tres Cantos (control centre)		94
Non-peninsular systems (control centres)		169
Regional Head Offices (4 offices)		99
Work centres (maintenance centres)		614
Lines and substations		736374

CC10.2c
Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Electricity consumption in offices/work centres		1664
Electricity transmission (energy losses)		736374

Further Information

Emissions from electricity consumption are available for each office/working centre. (Complete data are included in attached file)

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC10.Scope2EmissionsBreakdown(1Jan2016-31Dec2016)/Electricity consumption emissions.xlsx

Page: CC11. Energy

CC11.1
What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2
Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	0
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

7742.54

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	7281.24
Motor gasoline	461.3

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
Energy attribute certificates, Guarantees of Origin	8734.29	0	REE has established contracts with electricity supply companies for renewable energy supply. (Energy with Guarantees of Origin=100% renewable).

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
15516.26	15516.26	0	0	0	

Further Information

Data reported in C.11.3 includes fuel used for owned vehicles and shared leasing vehicles (including management vehicles).

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	12.35	Decrease	Decrease due to emission reduction activities: - SF6 emission reduction activities (improvement of the gas management, new procedures regarding handling of the gas, training of the employees involved and replacement of old equipment): 2881.17 t CO2 eq; - Mobility action plan: improvement of the efficiency of fleet cars (Green fleet accreditation) and other efficiency measures: 9.55 and electric/hybrid fleet for management team: 23 t CO2 eq; - Energy efficiency measures in work centres (isolation, climatization and lighting), energy management system in head offices, renewal of screens, PCs and laptops, awareness campaigns: 45.11 t CO2 eq; - Change electricity suppliers' contracts for the main working centres into energy with Guarantees of Origin (100% renewable): 1869 tCO2 eq. Total emission reduction (2881.17+23+9.55+45.11+1869)= 4827.83 t CO2 eq (4827.83/39102.81*100=12.35%). Please note that REE cannot make decisions regarding transmission losses (REE as operator of the electricity system cannot change the main factors that affect losses because they depend mainly on the market rules and an independent body different from REE manages them. Please, see further information box). Emissions from transmission losses are the 95.7 % of total emissions; this means that the company only has the possibility to develop emissions reduction activities on a 4% of its total emissions. For this reason, emission from transmission losses have been excluded from the denominator, in order to show the REE's real effort in reducing emissions.
Divestment	0	No change	
Acquisitions	0	No change	
Mergers	0	No change	
Change in output	0.74	Increase	The growth of electricity demand is a change in REE´s output. Electricity demand has grown 2107000 MWh in 2016. Emissions without considering the increase in the demand: Applying 2016 loosing rate (1.38%) and 2016 emission factor (0.21 tCO2/MWh) to the 2015 demand (248025000 MWh) = 730171.12 tCO2eq. Real emissions (associated to transmission losses) in 2016: 736374 t CO2 eq. The increase in emissions due to change in output is (736374-730171.12=6202.88 t CO2 eq. Emissions value (percentage) is 6202.88/843220.88*100=0.74% Please note that 843220.88 t CO2eq corresponds to 2015 scope1+2 emissions.
Change in methodology	0.22	Decrease	REE has changed the methodology to calculate emissions from electricity consumption and since 2016 emissions factors from the suppliers are used . Emissions from electricity consumption have decrease comparing to last reporting year. Part of the decrease have been due to energy efficiency measures and to new electricity supply contracts (Guarantees of Origin), but part of the decrease is associated to the change in methodology: 1813.19 t CO2 eq. (1813.19/843220.81*100= 0.22%) Please note that 843220.88 t CO2eq corresponds to 2015 scope1+2 emissions.
Change in boundary	0.08	Increase	In 2016, for the first time emissions from leased cars (including fleet for the management) have been considered in Scope 1 emissions. In the other side, part of the emissions associated to the air conditioning systems haven´t been included in the scope 1 this years. The result is an increase of 687.42 t CO2 eq. (687.42/843220.88=0.08%). Please note that 843220.88 t CO2eq corresponds to 2015 scope1+2 emissions.
Change in physical operating conditions	8.04	Decrease	Changes in physical &operation conditions influence some aspects. The main changes are those associated to the emission factor, which is calculated according to the real electricity mix for Spain. The mix mainly depends on the physical operation conditions of each year. In 2016, emission factor has decreased from 0.27 tCo2eq/MWh (in 2015) to 0.21 t Co2/MWh. This factor is used to calculate emissions from the transmission losses. The decrease of emission factor involves a reduction in Scope 2 emissions: 157245.88 t CO2 eq. In the other hand, physical operation condition also influences the amount of transmission losses (grid losses) in the year, which also depends on the electricity generation mix. In this case, losses have increased due to the physical conditions: 418000 MWh (Increase of emissions due to the increase of total losses: 89452 t CO2 eq) Total variation: 157245.88 - 89452=decrease of 67793.88 t CO2 eq. (67793.88 /843220.88*100=8.04) Please note that 843220.88 t CO2eq corresponds to 2015 scope1+2 emissions.
Unidentified	0	No change	
Other	0	No change	

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.00043	metric tonnes CO2e	1803764000	Market-based	7.6	Decrease	The main reason for change has been de reduction of the scope1+2 emissions (8.6%). Despite the decrease in the revenues (1.09%), denominator, the intensity figure decrease. Emission reduction has been motivated by: - Emission reduction activities: * SF6 emission reduction activities (improvement of the gas management, new procedures regarding handling of the gas, training of the employees involved and replacement of old equipment) *Mobility action plan: improvement of the efficiency of fleet cars (Green fleet accreditation) and electric/hybrid fleet for management team. *Energy efficiency measures in work centers (isolation, climatization and lighting) *Change electricity energy supply contracts into Energy with Guarantees of Origin (100% renewable) for the main work centers. - Reduction of emission factor and, consequently, reduction of emissions from grid looses.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
3.08	metric tonnes CO2e	Other: Gigawatt hour (GWh)	250132	Market-based	9.4	Decrease	The main reason for change has been de reduction of the scope 1+2 emissions (8.6%). Besides, there has been a small increase in the denominator (energy transmitted increase 0.85%), that also contributes to the global decrease of the intensity figure. Emission reduction has been motivated by: - Emission reduction activities: * SF6 emission reduction activities (improvement of the gas management, new procedures regarding handling of the gas, training of the employees involved and replacement of old equipment) *Mobility action plan: improvement of the efficiency of fleet cars (Green fleet accreditation) and electric/hybrid fleet for management team. *Energy efficiency measures in work centers (isolation, climatization and lighting) *Change electricity energy supply contracts into Energy with Guarantees of Origin (100% renewable) for the main work centers. - Reduction of emission factor and, consequently, reduction of emissions from grid looses.

Further Information

C12.1: Please note that, as transmission losses are the main source of emissions for REE, variations in the rest of emissions are not very relevant (in terms of quantity). REE cannot develop measures regarding transmission losses reduction, so the possibility to reduce SCOPE1+2 emissions is much reduced for the company. (Transmission losses mainly depend on the geographical location of the generation units with respect to the consumption areas, the size of transmission grid, the voltage level, the international power exchanges values and the amount of energy demanded and shape of the demand curve. REE as operator of the electricity system cannot make decisions regarding these factors. The assessment of generation is essentially based on the market rules (the price of bids) and performed by an independent body responsible for the Electricity Market operation (not REE). REE has to comply with operational procedures defined by the regulator (which are mandatory) and according to these procedures it is not possible to operate the electricity system regarding to losses reductions criteria. REE can only modify market schedules due to operational security reasons and energy losses are not associated with security.)

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

Yes

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance
Credit purchase	Forests	Project ID: VCSR803 Madre de Dios Amazon REDD Project. Avoided deforestation-Peru	VCS (Verified Carbon Standard)	2050	2050	Yes	Voluntary Offsetting

Further Information

2050 VCUs correspond to the offsetting of emissions from the commuting of all those employees who answered the mobility survey in 2016 (57,15% of the workforce) More information in CR report., pg. 205

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC13.EmissionsTrading/Comprobante transferencias_VCUs_Factor CO2.pdf
https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC13.EmissionsTrading/Carbon offsetting certificate.pdf

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	223275	An estimated calculation is made on the basis of the emission factors (tCO2 / millions of euros) per supplier, and this is then multiplied by the expenditure per supplier for 2016. Emission factor per supplier is estimated using a	66.60%	Emissions calculation has been done multiplying an emission factor (t CO2 eq/Euro) and the amount of

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			methodology that follows the guidelines of the GHG protocol, based on the application of an econometric input-output model that takes into account both the direct and indirect GHG emissions for each supplier. In the case of principal suppliers (in terms of emissions), a supplier engagement has been developed (direct survey is carried out).		expenditure for each supplier in 2016. Emission factor is estimated for each supplier: For the main ones (in terms of emissions) direct supplier engagement was developed. For the rest of suppliers (and those who finally didn´t respond to engagement process), emission factor was calculated by an external consultancy. The estimation methodology is in accordance with the Greenhouse Protocol and is based in an econometric input-output (I-O) model. Verified data have been obtained for suppliers representing 66.6% of the Supply chain emissions. (The information was compiled through online portal). Please note that the process to estimate the emission factor is not developed every year (last engagement was in 2013). In 2017, REE is reviewing the calculation methodology and supplier engagement processes. It is planned to carry out a new process at the end of 2017.
Capital goods	Not relevant, explanation provided		Emissions from capital goods are included in emissions from purchased goods and services. The same methodology is used: An estimated calculation is made on the basis of the emission factors (tCO2 / millions of euros) per supplier, and this is then multiplied by the expenditure per supplier for 2016. Emission factor per supplier is estimated using a methodology that follows the guidelines of the GHG protocol, based on the application of an econometric input-output model that takes into account both the direct and indirect GHG emissions for each supplier. In the case of principal suppliers (in terms of emissions), a supplier engagement has been developed (direct survey is carried out).		Emissions calculation has been done multiplying an emission factor (t CO2 eq/Euro) and the amount of expenditure for each supplier in 2016. Emission factor is estimated for each supplier: For the main ones (in terms of emissions) direct supplier engagement was developed. For the rest of suppliers (and those who finally didn´t respond to engagement process), emission factor was calculated by an external consultancy. The estimation methodology is in accordance with the Greenhouse Protocol and is based in an econometric input-output (I-O) model. Verified data have been obtained for suppliers representing 66.6% of the Supply chain emissions. (The information was compiled through online portal). Please note that the process to estimate the emission factor is not developed every year (last engagement was in 2013). In 2017, REE is reviewing the calculation methodology and supplier engagement processes. It is planned to carry out a new process at the end of 2017.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, explanation provided				As REE use of energy is not significant (less than 5% of total operational spent), REE does not consider this category as relevant. * Emissions from fuel consumption (in generating sets and fleet vehicles are not relevant in comparison to other Scope 1 emissions). *Electricity consumption in work centers is no relevant compared to electricity consumption from transmission losses. * Transmission losses, as REE is the Spanish TSO (transmission system operator) are included in Scope 2, so they don´t have to be included in Scope 3.
Upstream transportation and distribution	Not relevant, calculated	494	The calculation of emissions is based on the litres of diesel consumed by the logistics firm vehicles to carry out REE's activities. The emission factor used for the calculation is the same as the factor used for fleet vehicle. Emissions= fuel consumption (l) *emission factor(2.508 kg CO2/l) Fuel consumption data are provided by supplier (logistics are contracted to a sole company)	100.00%	Only refers to transportation and distribution of goods between company´s own facilities, in vehicles not owned by REE. (Transportation of purchased goods and inbound logistics are not completely included)
Waste generated in operations	Not relevant, explanation provided		Emissions from waste generated are included in the emissions for purchased goods and services. The same methodology is used: An estimated calculation is made on the basis of the emission factors (tCO2 / millions of euros) per supplier, and this is then multiplied by the expenditure per supplier for 2016.		Waste management services are included in purchased goods and services category. Previously to the consultation process, necessary to define emission factors for key suppliers, REE developed a study to identify the main suppliers in terms of emissions. Waste management suppliers are not among them. Therefore, REE doesn´t consider necessary to developed a specific calculation of this emissions category at the moment.
Business travel	Not relevant, calculated	1433	Emissions associated with business travel by plane, train (high-speed and long-distance) and car (private vehicles, rented vehicles and taxis) are included. A. Plane: The International Civil Aviation Organization's methodology is used: http://www2.icao.int/en/carbonoffset/Documents/ICAO%20MethodologyV3.pdf. Calculation tool. http://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx B.Train: the emission factors per kilometre provided by RENFE (railway company) are used (factors published in its environmental report for 2007:0.0211 Co2kg/km for High speed train and 0.0264 CO2kg/km for long distance). The number of km is provided by REE´s travel agency (taking into account all the trips in the year). C Car: a. Private vehicle or rental vehicle: calculations are based on the number of kilometres travelled, using the emission factors included in SACE tool (the Andalusian Government's tool for calculating emissions). b.Taxis: Emissions are calculated by the company engaged to manage this service.	100.00%	All the data are obtained directly from the travel agency in charge of business travel in REE or directly from corporative tools (SAP). Taxi data are supplied by the company engaged to manage this service.
		3574		57.15%	

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Employee commuting	Not relevant, calculated		Calculations are based on the kilometres travelled by employees using each form of transport. This information is obtained from a commuter survey which is sent to all employees. Emissions are calculated using the emission factors and spreadsheet from the SACE tool (the Andalusian Government's tool for calculating emissions).		57.15% of the workforce answered the survey in 2016. Data for the rest of the employees have been estimated.
Upstream leased assets	Not relevant, explanation provided		Emissions from leased assets are included in the Scope 2.		Emissions from leased assets are already included in Scope 2. REE leases only offices, there are no electricity (lines, substations, equipment..) assets leased by the company. Emissions from leased assets are emissions from electricity consumption.
Downstream transportation and distribution	Not relevant, explanation provided				Not applicable. REE does not sell products. Emissions associated to energy transmission are included in Scope 2.
Processing of sold products	Not relevant, explanation provided				Not applicable. REE does not sell products.
Use of sold products	Not relevant, explanation provided				Not applicable. REE does not sell products.
End of life treatment of sold products	Not relevant, explanation provided				Not applicable. REE does not sell products.
Downstream leased assets	Not relevant, explanation provided				Not applicable.
Franchises	Not relevant, explanation provided				Not applicable.
Investments	Not relevant, explanation provided				Not applicable.
Other (upstream)	Not relevant, explanation provided				No more relevant sources of scope 3 emissions have been identified.
Other (downstream)	Not relevant, explanation provided				No more relevant sources of scope 3 emissions have been identified.

CC14.2
Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance process in place

CC14.2a
Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Independent_Ass_Report_REE_2016_signed.pdf	1,2,3 & Appendix	ISAE 3410	100

CC14.3
Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a
Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Change in boundary	45	Decrease	Some sources that had been included last year (2015), has been considered as Scope 1 emissions in 2016: shared leased cars and managers (executive) cars. Total emissions considered as scope 1 1135 t CO2 eq.
Business travel	Change in output	5.8	Increase	New business: REE has started to work in future international projects, mainly in South America (T&D projects) and in the Canary islands (pumping). The only option for these trips is plane. This is the reason for the increase in emissions form business travel by plane. Total increase: 146 t CO2 eq.
Business travel	Emissions reduction activities	3.7	Decrease	REE approved in 2014 a Sustainable Mobility Plan. It includes reduction measures regarding travel by car (the aim is to reduce the use of cars and increase trips by train) or the use of taxis ("green" taxis). Total reduction: 95.29 t CO2 eq.
Employee commuting	Unidentified	6.8	Increase	REE approved a Sustainable Mobility Plan in 2014. During 2015 & 2016, part of the measures included in the Plan have been implemented, mainly at the head offices. Main measures associated with commuting are: improvement of the company bus service and shuttles to communicate offices with different points, inclusion of the public travel cards in the benefits-in-kind payments for employees, promotion of car sharing, incentives to purchase electric vehicles, charging points for privately owned electric vehicles and preferred parking spaces for efficient vehicles. REE hasn´t identified yet the reason for the increase in the emissions (despite the application of all the mobility measures).
Upstream transportation & distribution	Change in methodology	11.4	Decrease	Refers to emissions from internal transportation of materials (internal logistics). The emission factor have been changed according to the Spanish Ministry of Environment recommendations. (2,68 kg CO2/l in 2015. New emission factor (2016): 2,05 kg CO2/l). Emission decrease: 67 t CO2 eq.
Upstream transportation & distribution	Emissions reduction activities	4.7	Decrease	Refers to emissions from internal transportation of materials (internal logistics), that are contracted to a sole company. REE has worked this company and some efficiency measures have been applied in order to reduce km (optimize transportation) and to increase efficiency of the fleet. Total emissions saved: 27.7 t CO2 eq.
Purchased goods & services	Change in output	4.9	Decrease	Total emissions decrease. Despite there has been an increase in the expenditure in 2016 (46.8 million euros more than in 2015), the carbon intensity of the value chain has decreased: from 424 t CO2/million Euro in 2016 to 372 t CO2 /million Euro in 2015. Carbon intensity depends on the type of orders made in the year. There are products or services with different carbon intensity. Therefore, one cannot establish strict

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
				comparison between different years. Of all the activities, the construction of facilities and the manufacturing of electricity equipment are the most intensive.

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers
Yes, other partners in the value chain

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

1.Suppliers: To extend the commitment to fight against climatic change to our suppliers is one of the principles included in REE Climate Change Commitment and one of the objectives in the Climate Change action Plan.
a. Methods of engagement:
- For all suppliers: REE engage with its suppliers through qualification and evaluation processes. Standards on corporate responsibility and environment are considered in both processes. REE also includes general environmental requirements in contracts and also specific requirements depending on the good/service supplied (including requirements regarding climate change)
- For relevant suppliers in terms of emissions: REE asks suppliers for relevant information regarding emissions through on line questionnaire (questions and special requirements are also made by conference call). REE has also maintained face-to-face meetings with the top 10 suppliers in this sense.
-For some special suppliers (such as internal logistic company) direct work and engagement has been developed.
b. Prioritization:
A first study was made in order to prioritize suppliers in terms of emissions (in 2012). REE worked with a technical consultancy (Trucost) to identify the most intensive sectors and suppliers. Trucost has developed an Environmental Register, which consolidates the environmental impacts of over 4,500 publically owned companies, which was used as a base for the first prioritization. A first survey was also launched to main suppliers regarding % of total spend and carbon intensity criteria.
REE review the prioritization study periodically. Last deep study was developed at the end of 2014 and took into account new data from Trucost database and the results from the annual survey. A review based in the expenditure on each supplier is developed every year.
c. Measures of success:
- Suppliers representing the 41% of total spent provided direct data about their scope1, 2 and in some cases scope 3 emissions. Compiling information is a long and difficult process, which is the first step to start to develop reduction measures.
-Many of the suppliers have started to account emissions due to REE requirements and for REE this is an important achievement.
- In some cases, with some especial suppliers (logistics supplier) a better performance has been achieved. e.g. internal logistics supplier has improved noteworthy the system to compile and report fuel consumption in the activities contracted by REE. The information available to calculate emissions has improved a lot. In 2017 more improvement has been achieved regarding the compilation of Km done and the optimization of the routes.
2.Other partners: economic agents, society in general
a. Methods of engagement: REE has the commitment to promote energy efficiency among its stakeholders. The company is involved in many initiatives related to climatic change and energy efficiency.
-Development of communication tools that are able to explain REE's positioning and best energy efficiency practices to society overall (web site, brochures, road shows)
-Support to training and disclosure of knowledge about the electricity system and energy efficiency through collaboration agreements with universities and administrations
-Participating in projects to contribute to greater efficiency in the electricity system by improving awareness of electricity demand and developing new management measures
-Participation in specific projects and development of communication contents for electrical vehicles issues (brochures, web site).
-Travelling exhibition entitled "A highway behind the wall socket", to spread knowledge about electricity system and energy efficiency among general public
-Working with International Associations through specific working groups aimed to improve renewable energy integration.
b. Prioritization: Working with administration, economical agents and society in general is equally important to REE.
c. Measures of success: In this case it is very difficult to evaluate the success of the initiatives (they are mainly addressed to change habits of society in order to achieve a more efficient system). Results should be achieved in a longer term.
3. Other partners: employees and collaborators:
a. Methods of engagement:
• Creation of "Red Eléctrica Eficiente" (internal seal of recognition to distinguish those projects that promote the efficient use of natural resources) and "Red Eléctrica Eficiente awards".
•Awareness campaigns.
•Mobility plan (measures, awareness campaign and annual survey)
b. NA
c. Measures of success:
- Reductions in the work centers' resources consumption rates.
- Increase of participation in "Red Eléctrica Eficiente awards" (e.g. increase of the participation in the contest (more projects applying for the price and more employees attending the awards ceremony)
- Increase of participation of the employees regarding energy efficiency: many proposals received from the employees about mobility and other issues.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	88	80%	- Improvement of the supply chain´s emissions information: Suppliers representing the 41% of total spent provided direct data about their scope1, 2 and in some cases scope 3 emissions. Compiling information is a long and difficult process, which is the first step to start to develop reduction measures. - Improvement of supplier's engagement regarding climate change: Due to the requirements of REE (demand of information), many of the suppliers started to account emissions as a normalized process. This is an important achievement. - Improvement in the supply chain emission performance: In some cases, a better performance has been achieved. E.g. internal logistics supplier has improved noteworthy the system to compile and report fuel consumption in the activities contracted by REE. The information available to calculate emissions has improved a lot. In 2017, more improvement has been achieved regarding the compilation of Km done and the optimization of the routes.

Further Information

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC14.Scope3Emissions/Inventory_of_CO2_emissions_REE_scope_and_methodology_2016.pdf

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Ana Cuevas Tello	Corporate Director of Sustainability, Innovation and Institutional Coordination	Chief Operating Officer (COO)

Further Information

Module: Electric utilities

Page: EU0. Reference Dates

EU0.1

Please enter the dates for the periods for which you will be providing data. The years given as column headings in subsequent tables correspond to the "year ending" dates selected below. It is requested that you report emissions for: (i) the current reporting year; (ii) one other year of historical data (i.e. before the current reporting year); and, (iii) one year of forecasted data (beyond 2021 if possible).

Year ending	Date range
2016	Fri 01 Jan 2016 - Sat 31 Dec 2016

Further Information

REE does not perform any energy production activities. REE's activities are limited to the transmission of electricity and operation of the power system. Please see detailed information about REE activities is available in CR report. pg 13 &14

Attachments

https://www.cdp.net/sites/2017/59/15459/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/EU0.ReferenceDates/ree_corporate_responsibility_report_2016_v2.pdf

Page: EU1. Global Totals by Year

EU1.1

In each column, please give a total figure for all the countries for which you will be providing data for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emission intensity (metric tonnes CO2e/MWh)

Further Information

Not applicable. REE does not perform any energy production activities. REE´s activities are limited to the transmission of electricity and operation of the power system.

Page: EU2. Individual Country Profiles - Spain

EU2.1

Please select the energy sources/fuels that you use to generate electricity in this country

EU2.1j

Solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

EU2.1k

Total thermal including solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

EU2.1l

Total figures for this country

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

Further Information

Not applicable. REE does not perform any energy production activities. REE´s activities are limited to the transmission of electricity and operation of the power system.

Page: EU3. Renewable Electricity Sourcing Regulations

EU3.1

In certain countries, e.g. Italy, the UK, the USA, electricity suppliers are required by regulation to incorporate a certain amount of renewable electricity in their energy mix. Is your organization subject to such regulatory requirements?

Further Information

Not applicable. REE does not perform any energy production activities. REE´s activities are limited to the transmission of electricity and operation of the power system.

Page: EU4. Renewable Electricity Development

EU4.1

Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) in the current reporting year in either monetary terms or as a percentage

Please give:	Monetary figure	%	Comment
Renewable electricity's contribution to EBITDA			

EU4.2

Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage

Please give:	Monetary figure	%	Year ending	Comment
Renewable electricity's contribution to EBITDA				

EU4.3

Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan

Please give:	Monetary figure	%	End year of capex plan	Comment
Capex planned for renewable electricity development				

Further Information

Not applicable. REE does not perform any energy production activities. REE´s activities are limited to the transmission of electricity and operation of the power system. (This question doesn´t apply to REE although renewable energy is basic for the company, as it has an essential role in renewable energy development: building infrastructures that make possible renewable energy integration into the grid and operating the system in a way that allows its maximum integration)

CDP: [W][-,-][AQ][Pu][E2]