This management report has been prepared taking into consideration the "Guide of recommendations for the development of management reports of listed companies", published by the CNMV in July 2013.

1. COMPANY'S STANDING

The company has undergone a major transformation over the last 15 years, staying clearly ahead of the energy transition in order to tackle the challenges posed by climate change and the need for clean electricity.

Boasting a track record that spans over 170 years, today Iberdrola is a multinational group leading the energy sector: the company produces and supplies electricity to some 100 million people in the countries in which it operates.

IBERDROLA is committed to low-emission energy: it is the leading producer of energy from renewable sources among the European utilities, a world leader in installed terrestrial wind power and the cleanest electricity producer in the US, with almost zero emissions. As a result of its environmental commitment and its stake in the decarbonisation of the economy, it has succeeded in reducing its emissions in Europe by 75% since 2000, reaching levels that are 70% below the average for European companies in its sector.

IBERDROLA, as the energy company of the future, has placed its bets on clean energy, smart grids, efficient energy storage and the development of customised solutions for customers. And at the centre of this strategy are the various stakeholder groups, with which it maintains permanent dialogue. In order to confront the future energy scene with assurance of success, the company places its trust in the digital transformation, which is based on two main pillars: technology and innovation.

On this basis, IBERDROLA is now embarking on a new stage of growth, supported by a strong investment drive essentially in regulated businesses or with long-term contracts, which will provide the security, stability and visibility that are the hallmarks of the company's business model. Likewise, IBERDROLA will continue maintaining its social commitments, acting as a driver for the growth and generation of employment in the countries where it operates, and creating sustainable value for all its stakeholders.

1.1. Governance system

To make its business model as competitive as possible, IBERDROLA has organised the management of its activities around three global businesses:

Network Business: the grids area, which is responsible for the construction, operation and maintenance of power lines, substations, transformer substations and other facilities for delivering power from the production centres to the end user. Among the main targets are:

- Zero accidents.
- Offering an excellent service to customers, based on quality of supply and grid information.
- Maximising efficiency in the operation of the system through operating excellent and digitisation of assets

Leading change towards a more efficient integration of renewable distributed energy.

Generation and retail businesses: The business and retail business focus on the production of electricity through the construction, operation and maintenance of generation plants and the sale and purchase of energy in wholesale markets. It also involves the supply to end customers and additional products and services. Among the main targets are:

- Competitive supply and excellence of service to customers.
- Operating excellence, safety and respect for the environment,
- Identifying and minimising risks.
- Safety and continuous improvement of efficiency in operations.
- Analysis of growth opportunities.

Renewable Business: the renewables area, which is responsible for generating and selling electricity from renewable sources: wind (onshore and offshore), mini-hydroelectric, solar thermal, photovoltaic, biomass, etc. Among the main targets of the renewables business are:

- Safety in operations.
- Efficiency in operations to maximise return of assets.
- Efficiency in construction costs, with a special emphasis on offshore wind projects.
- Profitable growth in onshore and offshore wind in strategic group companies.

1.2 Mission, Vision and Values of the Iberdrola Group

The Mission, Vision and Values of the Iberdrola Group constitute its corporate philosophy, inspire and take form in the Corporate Policies Company's By-Laws and in the other rules of the Corporate Governance System, govern the day-to-day activities of the companies of the Group thereof, channel its leadership role in all of its areas of activity, focus its strategy of maximising social dividends, and guide their strategy and all of their actions.

Mission

"Our mission is to create value sustainably in carrying out its activities for society, citizens, customers, employees, shareholders, and other stakeholders, as the leading multinational group in the energy sector providing a quality service through the use of environmentally-friendly energy sources, which engages in innovation, leads the process of digital transformation in its area of activity, and is committed to the fight against climate change through all of its business activities, with a social dividend and the generation of employment and wealth, considering its employees to be a strategic asset. Along these lines, we foster their development, training, and measures of reconciliation, favouring a good working environment and equal opportunity. All of the foregoing is within the framework of our strategy of social responsibility and compliance with tax rules."

Vision

"We want to be the <u>leading multinational group in the energy sector</u> at the forefront of a <u>better future</u>, sustainably creating value with a quality service for people: <u>customers</u>, <u>citizens</u>, and <u>shareholders</u> (whom we care for and engage in our corporate life) and for the <u>communities</u> in which we carry out our activities, generating employment and wealth (with whom we engage in a constructive dialogue), known for our firm commitment to <u>ethical principles</u>, <u>good corporate governance</u>, <u>and transparency</u>, <u>the safety of people and supply</u>, operational quality and excellence, innovation, protection of the environment, and <u>customer focus and the Sustainable Development Objectives</u> approved by the UN. Making it possible thanks to the work of our employees and the people working at <u>our suppliers and collaborators</u>, whom we care for by offering all of our training resources and reconciliation measures for their development and to strengthen equality of opportunity".

Values

The mission and vision of the Group is configured based on a firm commitment to twelve values that all of the Corporate Policies, internal rules, and other internal codes and procedures must follow:

- Sustainable creation of value.
- Ethical principles.
- Good corporate governance and transparency.
- Development of our workforce.
- Social commitment.
- Sense of belonging.
- Safety and reliability.
- Quality.
- Innovation.
- Respect for the environment.
- Customer focus.
- Institutional loyalty.

1.3. Iberdrola's corporate governance model

Corporate governance system

The Corporate Governance System constantly updates its corporate governance system, consisting of By-Laws, the Mission, Vision, and Values of the Iberdrola group, the Corporate Policies, the governance rules of the corporate decision-making bodies and other internal committees, and the other codes, regulations, and procedures making up and elaborating upon Iberdrola's regulatory compliance system. In order to move forward in developing specific aspects of its corporate governance system, the Company promotes the creation of working groups composed of authorised representatives of the stakeholder group(s) affected in each case, Company employees and top-level experts in the field concerned.

The IBERDROLA group's commitment to good corporate governance and transparency is reflected in its Mission, Vision and Values, the bases of which as regards corporate governance are the involvement of the shareholders in the Company's affairs and maintaining a lead position in the application of best practices and in transparency.

The general corporate governance policy contains a summary of the basic principles regulating the corporate governance of the Company and of the Group and of its most important components, all of which is available at www.iberdrola.com.

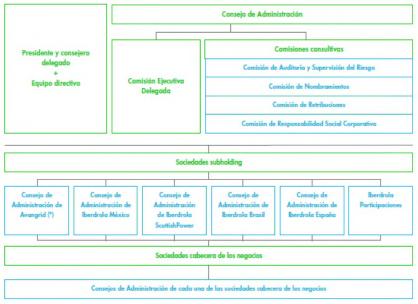
Governance model

This duly makes a distinction between the functions of strategy and supervision and those of management and control:

- The Iberdrola Board, composed of a large majority of independent directors, focuses on defining, supervising and monitoring the policies, strategies and guidelines to which the group must adhere.
- The chairman of the Board, the chief executive officer and the rest of the management team are responsible for the group's strategic coordination and organisation, through the distribution, implementation and monitoring of the general strategy and its basic guidelines.
- In all countries in which the group operates, business is organised and strategically coordinated through subholding companies, which group investments in energy business operating in the country concerned and centralise the provision of common services to these companies. The group also has a subholding to handle all non-energy business.
- The subholdings have boards with independent directors, and their own Audit and Compliance Committees, Internal Audit departments and Compliance units or departments.
- Parent companies are tasked with ordinary management and effective administration of all lines of business. They also have boards with independent directors and specific management teams.

This structure, which operates along with the group's business model, fosters global integration of the lines of business (Networks, Generation and Sales and Renewables), and focuses on maximising operational efficiency, by implementing best market practices.

Corporate and governance structure of Iberdrola, S.A.



(*) Sociadad cotizada en la Bolsa de Nueva York.

1.4. Corporate structure of the Group

Given the nature of the activities carried out by the IBERDROLA Group, its organization responds to the strategic business units, rather than product and service lines. These businesses are managed independently, as they respond to different technologies, regulations, and geographic markets (Note 8).

The IBERDROLA Group has a decentralised structure and management model to approximate the decision taking to places where they should have effect, through the subholding companies and parent companies of the businesses. In addition, the independence and listed subholding companies' reinforced autonomy are guaranteed.

The corporate structure encompasses the Company (IBERDROLA, S.A.), subholding companies and business parent companies.

IBERDROLA, S.A. (Parent company)

The Board of Directors of the Company defines and supervises the Group's policies and strategies and of the basic guidelines for the management thereof, as well as general oversight of the development of such policies, strategies and guidelines and of decisions on matters that are strategically significant at the Group level.

The chairman of the Board of Directors & chief executive officer, with the technical support of the Operating Committee, the Group's Business CEO and the rest of the management team, assumes the duty of organisation and strategic coordination of the Group through the dissemination, implementation and monitoring of the overall strategy and of the basic management guidelines established by the Board of Directors.

Subholding companies

The sub-holding companies group together the equity interests in the head-of-energy-business companies that conduct their activities in the various countries in which the group operates. This structure is rounded out with a country subholding company that groups together certain equity interests in other entities including the non-energy head of business companies,.

They contribute to organisation and strategic coordination in their respective countries, disseminating and implementing the Group's directives and management policies.

They centralise the provision of services that are common to the head-of-business companies, always in accordance with applicable legislation, and in particular with the rules on segregation of regulated activities.

The subholdings have boards with independent directors, and their own Audit and Compliance Committees, Internal Audit departments and Compliance units or departments.

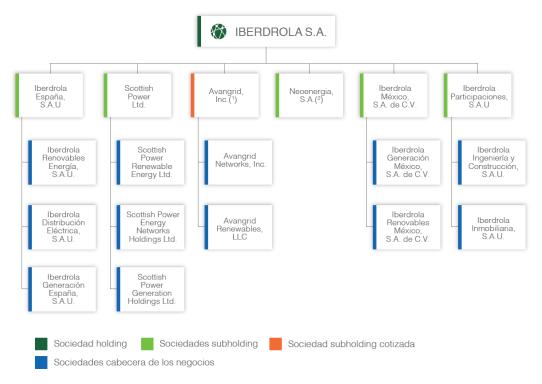
Subholding company listed have a reinforced special autonomy framework projected in regulations, combined business and management.

Head of business companies

The business subholding companies of the Group assume decentralised executive responsibilities. They carry out the day-to-day administration and effective management of each of the businesses, and are responsible for the day-to-day control thereof.

They are organised through their boards of directors, which may include, if the case, independent board members, and their own management; they may also have their own audit committees, internal audit areas, and compliance divisions.

Simplified scheme of the corporate structure of the Group



- (1) IBERDROLA has a stake in Avangrid, Inc. of 81.50%
- (2) IBERDROLA has a stake in .Neonergia S.A. of 52.45%

The Company's and the Group's governance conforms to the structure described above: separates the duties relating to strategy, oversight, and control of the Group as a whole, the duties of organisation and coordination of the businesses in each country and the multinational no-energetic business, as well as those of day-to-day administration and effective management of each business.

It is established on the following bases:

- a) The Board of Directors of the Company, which exclusively exercises holding company duties, has assigned powers relating to the establishment of the Group's policies and strategies and of the basic guidelines for the management thereof, as well as general oversight of the development of such policies, strategies and guidelines and of decisions on matters that are strategically significant at the Group level.
- b) The chairman of the Board of Directors & chief executive officer of the Company, with the technical support of the Operating Committee, the Group's Business CEO and the rest of the management team, assumes the duty of organisation and strategic coordination of the Group through the dissemination, implementation and monitoring of the overall strategy and of the basic management guidelines established by the Board of Directors.

- c) This organisation and coordination duty is strengthened through the boards of directors of country subholding companies, which includes independent directors, and their own audit committees, internal audit areas, and compliance units or divisions.
- d) The business subholding companies of the Group assume decentralised executive responsibilities. They carry out the day-to-day administration and effective management of each of the businesses, and are responsible for the day-to-day control thereof. These business subholding companies are organised through their respective boards of directors and their own decision-making bodies.

The corporate and governance structure of the Group described above operates jointly with the Group's Business Model, which entails the global integration of the businesses and aims to maximise the operational efficiency of the different units. The Business Model ensures the dissemination, implementation and monitoring of the overall strategy and of the basic management guidelines established for each business, primarily through the exchange of best practices among the various companies of the Group, without detracting from their independence in decision-making.

In any case, the Company and the Group assume the commitments established by law in connection with the legal and functional separation of the companies carrying out regulated activities, while the country subholding companies ensure compliance with the law on this matter.

1.5. Organization of the Board, or bodies in which it delegates its decision, including control functions and the policy followed with minority interests.

A comprehensive description of the governance structure of the Company, functions and internal regulations of the committees can be seen in Appendix C of the Annual Corporate Governance Report, which forms part of this Management Report.

1.6. Regulatory framework of the activities

A comprehensive description of sector regulation and operation of electric and gas system in the markets in which the Group operates can be seen in Appendix II "Sector regulation and functioning of the electricity and gas system" of these Financial Statements.

1.7. Main products and services, production processes

The main products that IBERDROLA offers to its customers are power and natural gas, both in the wholesale and retail markets reaching the final consumer. Also offers a wide range of products, services and solutions in the fields of:

- Improving the quality of life, calm and safety of the consumer.
- Efficiency and energy services.
- Caring for the environment: renewable energy and sustainable mobility.
- Power quality and safety of the facilities.
- Installation of electrical infrastructure.

Global management of facilities and energy supplies.

Through its subsidiaries it also provides engineering and construction services of power generation facilities, distribution and control; operation and maintenance of power generation facilities, management and promotion of the ground; and sale and rental of housing, offices and commercials. More detailed information can be found in www.iberdrola.com, in "customers" section.

As a general rule, companies directly manage the activities that belong to its core business, and outsource other estimated to be developed more efficiently by other specialized companies, which IBERDROLA requires certain quality standards and responsible behaviour in environmental, social and labour fields.

This information can be extended with corresponding indicators described in the Sustainability Report.

1.8. Strategic principles for the 2017-2021 period

Market conditions

The energy scenario in which IBERDROLA will develop its activity in the next few years will be based on three pillars:

- Decarbonisation, which will have as a direct consequence greater electrification of the economy, mainly based on energy from renewable sources;
- Technological advances, which will continue to drive the trend of increasing efficiency in renewable sources of generation and power grids; and
- Increased consumer connectivity, leading to demand for new energy services made possible by digitisation.

For all that, we estimate that world demand for electricity will increase by more than 60% to 2040, and that as a proportion of final demand for energy it will grow by four percentage points from its 2016 level to reach 23%.

Underpinned by these pillars, the company will continue to strengthen its lead position in the various markets in which it has a presence:

- In the United States the company is taking up a position to home in on opportunities for investment in energy infrastructures and renewables through the platform operated by its subsidiary AVANGRID, which has eight regulated energy Transport distribution companies in New York, Connecticut, Maine and Massachusetts, and is the country's second largest wind energy producer.
- The company will continue to expand in the United Kingdom in terms of networks and consolidate its leadership in renewable energies, especially offshore wind power plants on the current platform.
- In the Iberian peninsula it will bolster its position of leadership in energy from renewable sources and the associated grids.
- In Mexico, it will continue to invest in contracted generation, building on its position as the leading private sector supplier of electricity and taking advantage of the opportunities arising from the Energy Reform and the associated liberalisation of the sector.

- In Brazil, NEOENERGIA is already the country's leading electric utility in terms of number of customers, with a presence in ten states, and has great opportunities for growth in both energy from renewable sources and transport and distribution grids.
- Elsewhere in Europe, the company has already brought its first German offshore wind farm into operation, and is developing a project in France. In the retail business it is also extending its activities to other European markets, mainly Portugal, France and Italy.

Outlook 2018-2022

- IBERDROLA will continue to focus its investment strategy on grids, renewables and contracted generation, in its current areas of activity, in which it will invest EUR 32,000 million between now and 2022.
- The grids business will account for 50% of total capital expenditure, while renewables will account for 37% and contracted generation for 4%. Lastly, 9% of total investment will be earmarked for the generation and retail business.

Subsequently, 90 % of the investment scheduled will target regulated business –networks, renewable energies and long-term contracts.

By geographical areas, Iberdrola will invest 38 % in dollars, 19 % in sterling pounds, 25 % in the Eurozone and 18 % in Brazilian reals.

Main projects

- <u>United States</u>: Through AVANGRID the Group will continue investing in transmission grids and distribution infrastructure. Moreover, the company plans on reaching 8,700 installed MW of renewable source in 2022.
- <u>United Kingdom</u>: IBERDROLA will continue to implement network infrastructures under the regulatory frameworks already approved for transmission and distribution (RIIO-T1 and RIIO-ED1).
 As regards the renewable energy projects in the UK, the company continues to develop the 714 MW East Anglia One offshore wind project in the North Sea, which will be fully operational in 2020.
- Mexico: IBERDROLA's investment packages will focus on regulated generation and renewable energies, on the strength of the energy reform introduced in this country. The Company is building three combined-cycle plants and two cogeneration plants on long-term contracts, with a combined power output of 3,570 MW, and has plans for further investment in renewable energies in the years ahead. These projects, together with others in advanced stages of development, will allow the company to attain 10,600 MW of installed capacity in the country by 2022.
- <u>Iberian Peninsula</u>: investments will be centred on the area of distribution grids. The company will also continue with the construction of the Río Támega hydroelectric storage complex in Portugal, which will have a total capacity of 1,158 MW.
- <u>Brazil</u>: Through NEOENERGIA, IBERDROLA will take advantage of the investment opportunities in the Grids and Renewables businesses.

Operational efficiency

IBERDROLA, one of Europe's most efficient major electricity companies, will continue to boost its operating efficiency on the strength of technical progress in terms of the automation and digitalisation of all its businesses and processes, as well as the homogenization of processes through the implementation of the best practices of the group in all its businesses.

Earnings performance

This strategy of profitable growth in mature businesses, efficient management of assets and the investment plan described will lead to sustainable growth in the company's profits, which are expected to amount to more than EUR 11,500 million between now and 2022. In terms of net profit, this is estimated to exceed EUR 3,500 million a year by the end of the plan.

Shareholder remuneration

The trend forecast for the period will enable the company to increase long-term remuneration for shareholders, in keeping with results,

Financial solvency

The Company will continue to hold a solid financial position compatible with the investment plans and the remuneration provided to shareholders.

- Funds from operations (FFO) will reach EUR 42,000 million on a cumulative basis, with cash generation exceeding capital expenditure in all business areas.
- At the end of the period the company will have EUR 9,000 million of capital expenditure in progress, corresponding to assets that will start producing results beyond 2022. This allows the bases for further growth beyond the plan horizon to be established.
- All in all we expect the Group's ratio of FFO to Net Debt to be at around 24% in 2022.

This caption of the management report of IBERDROLA contains forward-looking information, including financial projections and estimates and their underlying assumptions, statements regarding plans, objectives and expectations with respect to future operations, capital expenditures, synergies, products and services and statements regarding future performance or administrators estimates which are based on assumptions that are considered reasonable by them.

Although IBERDROLA believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of IBERDROLA, risks that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

Forward-looking statements are not guarantees of future performance and have not been reviewed by the auditors of IBERDROLA. You are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date they were made. All subsequent oral or written forward-looking statements included in this report are expressly qualified in their entirety by the cautionary statement above. All forward looking statements included herein are based on the information available on the date hereof. Except for required by applicable law, IBERDROLA undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

2. BUSINESS EVOLUTION AND RESULTS

2.1 Operating highlights for the period

Iberdrola's results for the period must be framed within the implementation of the corporate strategy announced on Investor Day 2017, defined by the growing weight of regulated activities (transmission and distribution of electricity and gas) and the renewables business, both in terms of utilising investment opportunities and contributing to the Group's profit, with a growing weight of the United States and Mexico businesses on said contribution.

The following highlights should be noted regarding the period analysed, in comparison to the previous financial year, for their relevance in the interpretation of the profit for the year:

- On 24 August, having obtained approval from the ANEEL (Agência Nacional de Energia Elétrica or National Electrical Energy Agency) the BNDES (Banco Nacional de Desenvolvimento Econômico e Social or National Bank for Economic and Social Development) and the CADE (Conselho Administrativo de Defesa Econômica or Administrative Council for Economic Defence) we completed the transaction whereby the businesses of Elektro were incorporated into Neoenergia, thus creating a leading utility in Brazil and Latin America focused on the Grids and Renewables businesses. Following the transaction, IBERDROLA holds 52.45% of the resulting company, which has 13.6 million supply points, 585,000 km of distribution grid and more than 3,500 MW of contracted capacity in operation and under construction mainly in renewables. The transaction was carried out without affecting the Group's financial solidity, with no cash component, no capital increase and strengthening our position in an already well-known company.
- The results for 2017 were achieved in extremely difficult operating circumstances, with Spain suffering one of the driest years on record and 11 TWh less hydro-electricity being produced than in 2016. This difficult situation was partly offset by the good performance of the Grids business in the United States and the Generation and Retail business in Mexico, with the coming on stream of new capacity in accordance with the 2016-2020 Growth Plan.
- The tax reform approved in the US in the final weeks of the financial year, which reduces federal income tax from 35% to 21%, led to an improvement of EUR 1,284 million in net income. The impact is as follows:
 - As a result of the reduction of the federal tax rate from 35% to 21%, net income increased by EUR 2,026 million (see Notes 2.c and 30).
 - Impact on the value in use of the renewables business in the US, which required an impairment adjustment to goodwill in an amount of EUR 450 million (see Note 13).

- o Impact on non-controlling interests of the two foregoing effects: EUR 292 million.
- Non-current asset profit/(loss):
 - the merger of the wind energy businesses of Gamesa Corporación Tecnológica, S.A. (as the company absorbed) and Siemens AG GAMESA (as absorbing company), leading to a dilution of the percentage holding of the IBERDROLA Group, which went from 19.69% to 8.07% in the new Siemens Gamesa Renewable Energy, S.A. group. This transaction contributed EUR 251 million to profit for the year, of which EUR 198 million correspond to the extraordinary merger dividend paid to former shareholders of GAMESA.
 - the corporate reorganisation in Brazil, involving a capital gain of EUR 44 million on revaluing 39% of Neoenergia, S.A.
- We have discontinued the Engineering activity which is reported under discontinued operations in the consolidated financial statements, restating the figures for the previous year as required by the accounting rules.

As for average movements in IBERDROLA's main reference currencies against the euro during 2017, sterling depreciated by 7.1% and the US dollar by 1.9%, these movements being partly offset by the 6.7% appreciation of the Brazilian real.

For the system as a whole, the following points stand out:

- In Spain, the period was characterised by a sharp fall in hydroelectric production (48.9%), and a decline in nuclear production (0.9%). Production with other renewable technologies, coal-fired and gas-fired power stations covered the fall in hydroelectric and nuclear, with increases of 1.8%, 21% and 38% respectively. Electricity demand was slightly higher compared with 2016 (1%).
 - In the United Kingdom, electricity demand dropped by 1.7% compared to 2016. Customer's gas demand (not including generation consumption) also drops 3.1% due to a more benign weather.
 - In the AVANGRID area in the East Coast of the USA, electricity demand dropped by 2%, while gas demand stayed practically the same, increasing 0.5% compared to 2016.
- On the other hand, in the Iberdrola area in Brazil, electricity demand rose by 1.2% compared to 2016.

2.2 Magnitudes básicas gestionadas

At the end of 2017, IBERDROLA had 46,075 MW installed generation capacity, of which 65.6% produces emission-free energy while operating at a very low variable cost. In the table below distribution classified by countries and technologies is shown:

Power per country (MW)	2017	2016	MW change
Spain	25,607	25,605	2
United Kingdom	4,616	4,522	94
United States	7,009	6,502	507
Mexico	6,242	5,840	402
Brazil	1,640	187	1,453
ROW	961	621	340
Total	46,075	43,277	2,798

Power per technology (MW)	2017	2016	MW change
Hydraulic	10,984	10,392	592
Nuclear	3,166	3,166	-
Coal	874	874	-
Gas combines cycles	14,670	13,778	892
Cogeneration	299	299	-
Wind power, mini-hydraulic and other renewables	16,082	14,768	1,314
Total	46,075	43,277	2,798

IBERDROLA Group's total production in this period dropped by 4.6% to 126,198 GWh (132,274 GWh in 2016). The Net Production by geographical areas is the following:

Net Production (GWh)	2017	2016	% charge
Spain	50,358	61,725	(18.4)
United Kingdom	11,945	13,531	(11.7)
United States	17,612	17,436	1.0
Mexico	41,854	37,577	11.4
Brazil	3,047	639	376.8
ROW	1,382	1,366	1.2
Total	126,198	132,274	(4.6)

Net production per technology (GWh)	2017	2016	% charge
Hydroelectric	8,659	19,422	(55.4)
Coal	2,665	3,751	(29.0)
GCC	55,964	50,973	9.8
Nuclear	23,190	24,335	(4.7)
Renewables	33,557	31,917	5.1
Cogeneration	2,163	1,876	15.3
Total	126,198	132,274	(4.6)

2.3 Business evolution

2.3.1 Analysis of the profit and loss account

The key figures for the financial year 2017 are as follows:

Millions of euros	2017	2016	% charge
Revenue	31,263	28,759	8.7
Gross margin (1)	13,364	12,935	3.3
EBITDA (2)	7,319	7,934	(7.8)
EBIT (3)	2,713	4,686	(42.1)
Net Profit	3,423	2,944	16.3

⁽¹⁾ Gross Margin: Revenue – Procurements

(3) EBIT: Operating profit

⁽²⁾ EBITDA: Operating profit+ Amortisation and provisions

2.3.1.1 Gross Margin

Gross Margin was at EUR 13,364 million with a 3.3% increase compared to that obtained in financial year 2016, supported by the contribution of US, Mexico and Brazil, due to the incorporation of NEOENERGIA. The performance of reference currencies had a negative effect of EUR 186 million compensated by a better performance of the businesses of EUR 614 million including the incorporation of NEONERGIA.

The gross margin by business is as follows:

2017	2016	% charge
6,787	6,161	10.2
4,238	4,634	(8.5)
2,326	2,179	6.7
53	5	960.0
(40)	(44)	9.1
13,364	12,935	3.3
	6,787 4,238 2,326 53 (40)	6,787 6,161 4,238 4,634 2,326 2,179 53 5 (40) (44)

Network Business

The Networks business improved its contribution by 10.2% to reach EUR 6,787 million (EUR 6,161 million in 2016) supported by the improvement in the United States and the corporate reorganisation in Brazil.

Millions of euros	2017	2016	% charge
Spain	2,003	2,028	(1.2)
United Kingdom	1,174	1,267	(7.3)
United States	2,754	2,537	8.6
Brazil	856	329	160.2
Total	6,787	6,161	10.2

As notable events in the evolution of the gross margin during the period we can highlight the following:

- Gross margin in Spain reached EUR 2,003 million, EUR 25 million lower than the previous year, mainly explained by a decrease in recognised income of EUR 27 million. This is due to the fact that in 2016, positive re-estimates from previous years were recognised for EUR 16 million that affected the comparison.
- The United Kingdom contributed EUR 1,174 million (-7.3%), mainly due to the devaluation of the pound. This business is also affected by lower demand in 2017 due to the climate and reassessments of previous years due to lower-than-anticipated investments.
- The contribution of the United States in the period stands at EUR 2,754 million, EUR 217 million higher than the previous year (8.6%), despite the devaluation of the dollar which had an effect of EUR 53 million and an improvement of EUR 270 million for the business from the new rate cases and lower energy costs.
- The Gross Margin of Brazil amounts to EUR 856 million (160.2%) affected by the appreciation of the Real, EUR 58 million, the corporate reorganisation, which accounts for EUR 421 million, and the increase in the energy distributed and the annual rate reviews.

Deregulated Business

The Deregulated Business (Generation and Retail) decreased by 8.5% to EUR 4,238 million (EUR 4,634 million in 2016).

2017	2016	% charge
2,690	3,071	(12.4)
796	1,000	(20.4)
646	509	26.9
89	6	1,383.3
17	48	(64.6)
4,238	4,634	(8.5)
	2,690 796 646 89 17	2,690 3,071 796 1,000 646 509 89 6 17 48

- In Spain, the Gross Margin reached EUR 2,690 million (-12.4%), mainly due to the low hydropower contribution during the year offset by the positive evolution of the results in the gas business after the contract price review.
- Gross Margin for the United Kingdom was EUR 796 million. 204 lower in comparison to 2016. This variation negatively affected by the depreciation of the Sterling Pound in (the local currency depreaciated 14.7%). Production was 25.5% lower than in 2016 (-2,665 GWh), affected by the closure of the Longannet plant, which, together with higher supply costs, the increase in the cost of green certificates (ROCs), lower sales of gas and the narrowing of commercial margins explain this reduction in the contribution of the business.
 - Mexico's contribution to Gross Margin amounts to EUR 646 million (26.9%), improving in EUR 137 million the 2016 contribution. Depreciation of the US dollar results in a decrease of EUR12 million. The increase of EUR 149 million by the business has its origin in the PPA contracts (EUR 60 million), which include the commissioning of the Baja California combined cycle; improvement in sales to private customers and increase in power (EUR 81 million); other smaller items, surpluses, etc. (EUR 8 million).
- The Gross Margin of Brazil came to EUR 89 million, the main effects of the increase of EUR 82 million were: the appreciation of the Real, which accounted for EUR 6 million and the corporate reorganisation, which accounted for EUR 76 million.

Renewable Business

The Renewable business decreased its Gross Margin by 6.7% to EUR 2,326 million (EUR 2,179 million in 2016), EUR 147 million more in comparison to 2016.

Millions of euros	2017	2016	% charge
Spain	777	764	1.7
United Kingdom	493	385	28.1
United States	783	802	(2.4)
Brazil	78	36	116.7
Mexico	71	69	2.9
ROW	124	123	0.8
Total	2,326	2,179	6.7

The main causes of this trend are:

- In Spain, it increased to EUR 13 million up to EUR 777 million (+1.7%) despite lower production.
- The gross margin in the United Kingdom increased by EUR 108 million to EUR 493 million (28.1%) despite the impact of the devaluation of the pound, which accounted for EUR 35 million. Despite this, the higher production (+42%) derived from better onshore and offshore wind power during the year and the increase in onshore power improved the gross margin by EUR 115 million. The improvement of the ROC price and other minor effects explain the remaining EUR 28 million.
- The contribution of the United States for the period totalled EUR 783 million (-2.4%), EUR 19 million less compared to the previous year. The effect of the devaluation of the dollar had a negative impact of EUR 15 million, while the improvement in production improved the gross margin by EUR 7 million and was offset by the reduction in the year of EUR 11 million in the impact of electricity and gas derivatives.
- Mexico contributed EUR 2 million to the Gross Margin due to increase in prices.
- Brazil contributed EUR 42 million in higher margin, affected by the appreciation of the Brazilian real and greater volume (+87.5%) due to the global integration of the plants of the Neoenergia subgroup.
- The rest of the world increased slightly with respect to 2016, EUR 1 million, due to an increase in production of 0.8%.

Other businesses

The contribution of Other Businesses reached EUR 53 million, a decrease of 960.0% (EUR 5 million in 2016), although it is due to the discontinuation of the engineering business.

2.3.1.2 Gross Operating result - EBITDA

Consolidated EBITDA decreased by EUR 615 million, -7.8%, to EUR 7,319 million (EUR 7,934 million in 2016), where the Networks (+3.6%) and Renewables (6.1%) businesses improved and the Liberalised Generation and Customers business reduced its contribution (-28.9%). This reduction in EBITDA without considering the exchange rate effect of EUR 105 million would be EUR 510 million (-6.4%).

However, without taking into account the early retirement plan for each year, EBITDA would decrease by EUR 452 million (-5.7%) and would be 4% lower if the variation in the main currencies was not considered.

Millions of euros	2017	2016	% charge
Network Business	4,228	4,082	3.6
Deregulated Business	1,601	2,253	(28.9)
Renewable Business	1,592	1,500	6.1
Other businesses	39	(7)	657.1
Corporation and adjustments	(141)	106	(233.0)
EBITDA	7,319	7,934	(7.8)

Net operating expenses

The net operating expense increased by EUR 704 million (20.3%) to EUR 4,170 million (EUR 3,466 million in 2016) affected by the exchange rate, EUR 54 million, the reorganisation in Brazil that accounted for EUR 254 million, the effect of the storms in the United States came to EUR 109 million and the variation in the early retirement plan for an amount of EUR 163 million. The growth in the business itself and positive impacts in 2016 that affect the comparison explain the remaining EUR 124 million.

Millions of euros	2017	2016	% charge
Network Business	1,981	1,441	37.5
Deregulated Business	1,534	1,504	2.0
Renewable Business	631	537	17.5
Other businesses	13	11	18.2
Corporation and adjustments	11	(27)	140.7
Total	4,170	3,466	20.3

Taxes

Taxes increased by EUR 339 million, 22.1% higher than those registered in 2016, to reach EUR 1,875 million, due to:

- the positive exchange rate effect (EUR 28 million) and the decrease of EUR 43 million in the taxes from the Sustainability Act, hydropower fee;
- several positive impacts recorded in 2016 that amounted to EUR 269 million and had a negative impact on the year-on-year comparison (the territorial supplement, the Ecotax and the discount rate (bono social) amounted to EUR 119 million, EUR 8 million and EUR 142 million respectively);
- the negative impacts of spending on the discount rate (bono social) in 2017 for EUR 68 million and the
 increase in rates in the United Kingdom, mainly in the Generation and Customers business derived
 from the Warm Home Discount programme and the United States for EUR 30 million and EUR 6
 million, respectively;
- provisions and other minor effects accounted for an increase of EUR 37 million.

2.3.1.3. Net Operating result - EBIT

EBIT totalled EUR 2,713 million, 42.1% higher in comparison with 2016 (EUR 4,686 million).

Network Business 2,660 2,649 0.4 Deregulated Business (33) 1,313 (102.5) Renewable Business 288 703 (59.0) Other businesses 3 (15) 120.0 Corporation and adjustments (205) 36 (669.4)				
Deregulated Business (33) 1,313 (102.5) Renewable Business 288 703 (59.0) Other businesses 3 (15) 120.0 Corporation and adjustments (205) 36 (669.4)	Millions of euros	2017	2016	% charge
Renewable Business 288 703 (59.0) Other businesses 3 (15) 120.0 Corporation and adjustments (205) 36 (669.4)	Network Business	2,660	2,649	0.4
Other businesses 3 (15) 120.0 Corporation and adjustments (205) 36 (669.4)	Deregulated Business	(33)	1,313	(102.5)
Corporation and adjustments (205) 36 (669.4)	Renewable Business	288	703	(59.0)
	Other businesses	3	(15)	120.0
EBIT 2,713 4,686 (42.1)	Corporation and adjustments	(205)	36	(669.4)
	EBIT	2,713	4,686	(42.1)

Amortisations and provisions

Amortisations and Provisions rose by 41.8%, totalling EUR 4,606 million:

- The Amortisations item rose EUR 99 million (3.2%), and reached EUR 3.186 million.
 - The effects that reduce this item with respect to the previous year are: the exchange rate effect, EUR 49 million and the modification of the useful life of the combined cycles of 35 to 40 years and the electromechanical equipment of the hydraulic power plants from 35 to 50 years (limited by the date of concession of each plant) that had a positive impact of EUR 65 million; the net impact of other minor effects is EUR 3 million;
 - The incorporation of the corporate reorganisation in Brazil and the new investments increased the amortisations by EUR 117 million and EUR 99 million, respectively;
- Provisions represent EUR 1,420 million. The main impacts registered are:
 - Provision derived from the classification as maintained for the disposal of the gas business in the United States and Canada in the amount of EUR 744 million (Notes 34 and 41);
 - Reorganisation of the goodwill of the renewables business in the United States as a result of the tax reform amounting to EUR 450 million;
 - The remaining EUR 226 million are net of several less significant provisions and reversals.

2.3.1.4. Financial Result

The net financial result was EUR -937 million, rising EUR 34 million, improving by 3.8% compared to that registered in 2016 (EUR -903 million), mainly due to the consolidation of NEOENERGIA.

The reduction in the average cost to 3.49% (57 b.p. lower than last year) has contributed with a EUR 64.8 million (6%) on the improvement of the result associated to debt, despite the fact that average net debt increased by EUR 3,470 million.

The result of the valuation of the foreign currency and derivatives items was greatly reduced by the valuation of the hedges on net profit in foreign currency (extraordinarily high for the pound in 2016). On the other hand, several non-recurrent contingencies (mainly default interest recognised in court rulings) resulted in higher financial income. The net impact of both effects was EUR 13 million.

The contribution to the financial result of the integration of Neoenergía as from 24th August had an impact of EUR 86 million.

2.3.1.5 Results of Companies Consolidated by the Equity Method

The item of Company Results using the Participation Method accounted for EUR -29 million compared to 2016, coming to EUR 47 million as a result of Neoenergia becoming consolidated globally instead of using the equity method since 24th August and the lower contribution by Gamesa-Siemens.

2.3.1.6 Income from Non-Current Assets

Income from Non-Current Assets amounted to EUR 279 million with a decrease of EUR 469.4% million compared to 2016 (EUR 49 million). In 2017 the most significant transactions were as follows:

- The absorption of Gamesa and Siemens that contributed EUR 251 million (EUR 198 million) corresponded to the cash received as an extraordinary merger dividend;
- The corporate reorganisation carried out in Brazil led to the takeover of Neoenergía, going from a stake of 39% to 52%, after having contributed Elektro to Neoenergía. Upon taking control, the initial shareholding of 39% was recorded at market value, recording a capital gain of EUR 44 million.
- The sale of Amara and other assets resulted in net losses of EUR 14 million.

2.3.1.7 Net Profit

The Net Profit amounts to EUR 2,804 million, with an increase of 3.7% compared to that obtained in 2016 (EUR 2,705 million) thanks to the impact of the tax reform in the United States, a positive figure of EUR 2,026 million in the tax item, which meant that this item went from expenditure of EUR 935 million in 2016 to a positive result of EUR 1,397 million in 2017.

2.4 Operative evolution of the period

2.4.1 Network business

A. Spain

IBERDROLA has approximately 11 million managed supply points and total distributed energy 93,289 GWh, a decrease of 0.5% compared to the same period of the previous year (93,736 GWh in 2016).

TIEPI's quality of supply indicator for fiscal year 2017 was 52.7 minutes, with an improvement of 2.6% over the previous year (54.1 minutes in 2016).

The table shows the values of the TIEPI (interruption time) and NIEPI (number of interruptions) in relation to the previous year:

	Accumulated TIEPI	Accumulated NIEPI
2016	54.1	1.04
2017	52.7	1.14

The investment made during the year has allowed the following facilities to be put into operation:

Physical Units	2017	Total
Lines (1)	Overhead (km)	274
	Underground (km)	723
Substations	Transformer (units)	18
	Capacity increase (MVA)	1,816
	Substation (units)	6
Secondary sub-stations	Centres (no) (3)	503
	Capacity increase (MVA) (2)	217

⁽¹⁾ Decrease of numbers of km of HV lines by substitution by EHV lines (some owned by REE) and, in addition, EHV/HV transformation is being replaced by EHV/MV, leading to the elimination of some HV circuits. In June 2017, in the province of Valencia, the works of shifting from 132kV to 220kV were completed on the lines connecting the substations of Catadau, Valle del Cárcer, Valldigna and Gandía, which became part of the transmission Network.

(2) New substations put into service in 2017: Carril (380 kV) IN Murcia, Tobarra 132 kV In Albacete, Mudarra Iberdrola 220 kV In Valladolid, Nogalte (132kV) In Murcia, ST Armuña (132kV) In Salamanca AND ST Murcia (220kV) In Murcia.

Within the STAR smart grid project, IBERDROLA has exceeded the figure of 10 million digital meters installed and adapted the infrastructure that supports them to a smart grid, which represents a modernisation of 95% of the company's meter pool in Spain. Around 67,000 transformer stations distributed throughout Spain have also been adapted, now incorporating telemanagement, supervision and automation capabilities. So far this year, a total of 1,257,431 smart meters have been installed and 95% of the total have been integrated into the network. According to the CNMC report of 23 February 2017, that tracks the effective integration of smart meters in Spain, IBERDROLA is the number one distributor in terms of remote management reading.

B. United Kingdom

IBERDROLA has more than 3.5 million supply points in the United Kingdom. The volume of energy distributed during 2017 was 32,772.0 GWh (33,482 GWh in 2016), a decrease of 2.1% compared to the year 2016.

All quality of service indicators improved compared to 2016. The average Customer Minutes Lost (CML) and the number of consumers affected by interruptions per every 100 customers (Customer Interruptions, CI) are:

	2017	2017		2016	
	CML	CI	CML	CI	
Scottish Power Distribution (SPD)	29.4	40.7	30.7	45.3	
Scottish Power Manweb (SPM)	33.2	29.6	37.2	38.9	

C. United States

Distribution

In the United States IBERDROLA has 2.2 million electricity supply points. The volume of energy distributed in the year was 36,591 GWh, which represents a decrease of 1.2% compared to 2016 (37,027 GWh).

The System Average Interruption Frequency Index (SAIFI) and the Customer Average Interruption Duration Index (CAIDI) are as follows:

	2017		2016	
	SAIFI	CAIDI	SAIFI	CAIDI
Central Maine Power (CMP)	1.61	1.83	1.78	1.89
NY State Electric & Gas (NYSEG)	1.20	-	1.19	2.02
Rochester Gas & Electric (RGE)	0.55	1.77	0.58	1.79
United Illuminating Company (UI)	0.41	1.36	0.53	0.42

The three companies comply with all their quality of service indicators within the limits required by the corresponding commission.

Gas

The number of gas users in the United States at the end of 2017 is over 1 million, which has been supplied with 51,440 GWh, a 3.8% decrease over the same period of last year when 53,460 GWh were distributed...

D. Brazil

The evolution of the demand of distributors in Brazil in 2017 increased 1.8% reaching 55,510 GWh (54,503 GWh in 2016).

Energy distributed (GWh) 100% of business	2017	2016	% Change
COELBA	19,679	19,549	0.7
COSERN	5,623	5,582	0.7
CELPE	13,512	13,410	0.8
ELEKTRO	16,696	15,962	4.6
Total	55,510	54,503	1.8

The number of customers served by the distributors at the end of the year reaches 14 million.

Number of customers (million) 100%	2017	2016
COELBA	6	5
COSERN	1	1
CELPE	4	4
ELEKTRO	3	3
Total	14	13

Plant	MW	Attributable MW	Year
Baixo Iguaçu	350	129	2018
Belo Monte	6,722	353	2016-2018
Total	7,072	482	

2.4.2 Deregulated business

A. Spain and Portugal

A.1. Generation

Installed capacity in Spain (without renewables) reaches 19,747 MW, with no significant changes compared to 2016 (19,745 MW).

Installed capacity (MW)	2017	2016	Change
Hydroelectric	9,715	9,713	2
Nuclear	3,166	3,166	-
Coal	874	874	-
Gas combines cycles	5,694	5,694	-
Cogeneration	298	298	_
Total	19,747	19,745	2

The Energy Balance of the peninsular system in 2017 is characterised by a significant increase in thermal production compared to the previous year (26%), mainly due to the reduction of hydroelectric production (47%) as it was a year with very low rainfall. The rest of the production from renewable sources increased by 2%, mainly due to the higher wind production recorded in the last quarter (+44% compared to the same period of the previous year). Coal and combined cycles production have increased in 21 and 32% respectively in comparison to 2016. In terms of demand, it increased by 1% with respect to the same period of 2016, while in terms adjusted for work and temperature, it grew by 1.6%.

According to IBERDROLA, during the twelve months of 2017, production decreased by 22.1% until reaching 39.368 GWh.

The evolution of the year by technologies is as follows:

Net Production (GWh)	2017	2016	% Change
Hydraulic	7,467	18,510	(59.7)
Nuclear	23,190	24,335	(4.7)
Coal	2,665	2,115	26.0
Gas combined cycles	3,883	3,724	4.3
Cogeneration	2,163	1,875	15.4
Total	39,368	50,559	(22.1)

- Hydraulic production reached 7,467 GWh, a decrease of 59.7% over the previous year. The level
 of hydropower reserves as of 31st December 2017 was at 29% compared to 42% as of 31st
 December 2016 (equivalent to 3,314 GWH compared to 4,791 GWh), all due to the exceptionally
 low rainfall in the year.
- Nuclear production stands at 23,190 GWh, registering a decrease of 4.7%, as a consequence of the lengthening of the stoppage at the Cofrentes plant.
- Coal-fired power stations reached 2,665 GWh, compared to 2,115 GWh the previous year, representing an increase of 26.0%.
- Production of combined cycle plants, for their part, increased by 4.3%, until reaching 3,883 GWh.
- Cogeneration plants increase their production by 15.4%, until reaching 2,163 GWh.

A.2 Retailing

Supplied energy (electricity and gas) in Spain came to 55,157 GWh (51,614 GWh in 2016) and 7,926 GWh of gas (8,753 GWh in 2016).

Electricity sales on the deregulated market in 2017 increased by 9.3% amounting to 47,455 GWh compared to 43,405 GWh supplied in the same period of 2016. Regarding the electricity supplied at the PVPC, it amounts to 7,702 GWh.

The gas retailed in the deregulated market in 2017 increased by 9.6% to 7,863 GWh compared to 8,702 GWh supplied in 2016.

In Portugal, IBERDROLA supplied 7,587 GWh during 2017, compared to 7,343 GWh supplied in 2016 (+3.3%), being the second seller in the Medium Voltage industrial clients.

B. United Kingdom

B.1. Generation

As of 31 December 2017 and 2016 installed capacity in the UK reached 2,531 MW.

UK capacity (MW)	2017	2016	% Change
Hydraulic	563	563	_
Gas combined cycles	1,967	1,967	-
Cogeneration	1	1	-
Total	2,531	2,531	_

With regard to production from traditional electricity generation, in 2017 it decreased by 25.5% to 7,792 GWh compared to the 10,456 GWh of the previous year, due to the aforementioned impact of the closure of the Longannet power plant.

The market share of the generation business in 2017 was 4%, compared to 4.2% in the previous year. By technologies, the most outstanding aspects are the following:

UK Production (MW)	2017	2016	% Change
Hydraulic	692	585	18.3
Coal	_	1,636	(100.0)
Gas combined cycles	7,100	8,234	(13.8)
Cogeneration	_	1	(100.0)
Total	7,792	10,456	(25.5)

B.2. Retailing

Regarding sales, during 2017 customers have been supplied with 21,591 GWh of electricity and 29,514 GWh of gas (20,951 GWh of electricity and 31,974 GWh of gas supplied during 2016). SCOTTISH POWER had 3 million electricity customers and 2 million gas customers as of 31 December 2017.

C. Mexico

IBERDROLA is the leading private producer in the country with 5,832 MW (5,473 MW in 2016) in installed capacity. Highlights are the entry into commercial operation of the Baja California III power plant of 301 MW at the end of January 2017 and the extensions to the MXL de Monterrey III, contributing more than 22 MW extra to the plant for sale to private clients and a power expansion in the combined cycle of Altamira V of 35 MW.

Currently the following plants are in construction:

Projects	MW
Cogeneración Altamira (Dynasol)	57
Cogeneración Bajio	50
Cogeneration	107
Escobedo	857
Topolobambo II	887
El Carmen	842
Topolobambo III	766

Combined cycles	3,352
Total	3,459

The electric energy supplied from the combined cycles and cogeneration plants has been 41,601 GWh (36,598 GWh in 2016), which supposes a charge factor of the 80%, because the generation with natural gas the base of the electric generation in Mexico. The accumulated availability of the plants in Mexico has been 97%.

D. Brazil

The power of the projects in operation at the end of 2017 is 5,653 MW (1,059 MW in the IBERDROLA percentage).

As for the projects under construction, the pace of construction follows the planned schedule, so that the scheduled finish dates are maintained. Generator sets in Belo Monte continue entering into operation in a staggered manner. During 2017, 2,522 MW came into operation, 132 MW attributable to them. Construction of Baixo Iguaçu continues.

Plant	MW	Attributable MW	Year
Baixo Iguaçu	350	129	2018
Belo Monte	6,722	353	2016-2018
Total	7,072	482	

2.4.3. Renewable business

At the end of 2017, the renewables business had an installed capacity of 14,141 MW (12,971 MW in 2016).

The renewable production increased by 5.1% to 33,557 GWh (31,917 GWh in 2016).

In the last 12 months, IBERDROLA increased its power in 1,316 MW.

MW installed	2017	2016	MW change
Wind Energy Spain	5,508	5,508	_
Wind Energy USA	6,145	5,692	453
Onshore Wind Energy United Kingdom	1,891	1,796	95
Offshore Wind Energy United Kingdom	194	194	_
Wind Energy Mexico	367	367	-
Wind Energy Brazil	516	187	329
Onshore Wind Energy Rest Of The World	605	615	(10)
Offshore Wind Energy Rest Of The World	350	_	350
Total wind energy	15,576	14,359	1,217
Other renewables	507	408	99
Total installed capacity	16,083	14,767	1,316

A. Onshore Wind Energy

In the last 12 months IBERDROLA has increased its total installed capacity to 867 MW: 320 MW were incorporated due to the integration of Neoenergía, 638 MW were installed and 91 MW were deconsolidated (81 MW due to the deconsolidation of Colorado Green and 10 MW due to the sale of the Italian companies).

Spain

The installed power at the end of 2017 has reached to an amount of 5,508 MW and manages 244 MW through non-consolidated participated companies.

A work of two wind farms with a total capacity of 32.2 MW in the Tenerife island has been approved: Chimiche II (18.4 MW) and Las Aulagas (13.8 MW).

United States

The Company has presence in 21 states with a total of 6,145 MW wind farms installed and additional 161 MW are managed through participated companies.

In 2017 El Cabo (298.2 MW) in Nuevo Mexico, Tule (131 MW) in California, Twin Buttes II (75 MW), in Colorado, and Deerfield (30 MW) in Vermont were commissioned.

In September construction works for Montague (201.1 MW) in Oregon started.

In 2017 the construction of a 66 MW with photovoltaic technology in Oregon has been approved. Gala (56 MW), where works ended in October with its commissioning, and W'y East (10 MW), on which works will begin during the first quarter of 2018. The construction of a 645 MW with wind technology has been approved: Karankawa (286 MW) in Texas, Coyote Ridge (96.7 MW) and Tatanka de (96.7 MW) in South Dakota and La Joya (166 MW) in New Mexico.

United Kindom and Republic of Ireland

The onshore wind power is 1,891 MW in United Kingdom and 15 MW are managed through participated companies.

In 2017, 95 MW were commissioned: 71.5 MW en Killgallioch, 11.5 MW en Ewe Hill Phase 2, 3.4 MW in the extension of Hare Hill, 8 MW en Glen App.

Brazil

Following the incorporation of Neonergia, Brazil has 516 MW.

Six projects for a total of 174 MW wind farms were finally winners in the "Leilãos" (competition) which had taken place during 2014. There are in the course phase the works of the following wind farms: Calango 6 (30 MW), Santana I (30 MW) and Santana II (25 MW).

<u>Mexico</u>

In Mexico, the installed power is 367 MW.

The following wind farms are in construction: Santiago eólico (105 MW) in Guanajuato and Pier (220.5 MW) in Puebla. The first 20 MW in Santiago were commissioned.

ROW

The installed power at the end of 2017 has reached to an amount of 605 MW afollowing the sale of 10 MW in Italy.

B. Offshore Wind Energy

IBERDROLA has two offshore wind farms operating with 544 MW, West of Duddon Sands in the United Kingdom, located in the Irish Sea, with an installed capacity of 194 MW and Wikinger in Germany with 350 MW.

Currently, the renewables business is developing offshore wind projects mainly in the United Kingdom, Germany and France.

In Germany, active work is being carried out to increase the portfolio of projects in the German Baltic Sea, in the vicinity of the Wikinger wind farm, through the participation in the auctions that will be organised by the German regulator in April 2018.

In France, in April 2012, the consortium formed by IBERDROLA and the French company EOLE-RES was awarded by the French Government the exclusive rights for the operation of the offshore wind farm of Saint-Brieuc, with a capacity of 500 MW. In October 2015, the project submitted its application for a construction license, which was granted in April 2017. This gives way to the pre-FID phase, with the geotechnical studies campaign currently under way as the first milestone in the construction.

Iberdrola is developing in the United Kingdom the "East Anglia" project in the North Sea. The East Anglia 1 project (714 MW) is in the construction phase, with on-site work and ongoing manufacturing activities initiated in various locations inside and outside Europe. Progress is being made on the wiring and land substation works, which will connect the project with the national network.

The manufacturing works are taking place in various locations inside and outside Europe: Navantia is manufacturing the offshore substation and 42 jackets on which the turbines will be installed. The completion of the first jacket is expected in October 2018. Lamprell has started manufacturing the remaining 60 jackets, 24 of which will be assembled at Harland & Wolff, in Belfast. Nexans is finalising the detail design and will begin to produce the "sub-sea" wiring, and Prysmian has already produced more than 50% of the onshore wiring.

The project is moving forward in order to commence the marine works in 2018, starting with the foundation works by van Oord, and continuing with the installation of the marine substation by Seaway Heavy Lifting, and the installation of the marine wiring, for its connection with the terrestrial substation, by Nexans and DeepOcean. Siemens Gamesa will manufacture and install the 102 units of 7MW turbines, installation of which is expected to begin in mid-2019.

The other three development projects owned by Iberdrola in the East Anglia area, with an accumulated capacity of 2,800 MW, are still being processed in accordance with the plans agreed with The Crown Estate. For the East Anglia 3 project, environmental approval from the Secretary of State for the Department of Business, Energy and Industrial Strategy of the United Kingdom was received on schedule on 7 August for the construction of its 1,200 MW of power. The next step for this project will be to win the award of a contract to sell its production (CfD: Contract for Difference) and thus ensure its viability, foreseeably in April 2019.

C. Other technologies

The Renewable business has facilities of other renewable technologies in various countries making a total of 507 MW, which breakdown is presented in the following table:

MW installed	2017	2016	Country
Mini-hydraulic special regime	130	130	Spain
Mini-hydraulic ordinary regime	171	172	Spain
Solar thermal hybrid	50	50	Spain
Photovoltaic	155	56	USA (150MW) Greece (6MW)
Total	507	408	

USA-Avangrid

Gala was placed into operation with 56 MWn of photovoltaic technology, while the commissioning works are ongoing at W'y East (10 MWn), both in the state of Oregon.

Mexico

Of the 270 MWh of photovoltaic technology in construction in 2016: Santiago (170 MW) in San Luis de Potosí and Hermosillo (100 MW) in Sonora. 23 MW of Santiago were commissioned.

3. LIQUIDITY AND EQUITY RESOURCES

3.1. Leverage

Gross financial debt as of 31 December 2017 increased by EUR 5,089 million to EUR 37,115 million compared to EUR 32,026 million as of 31 December 2016, mainly as a result of the integration of Neoenergía, which accounts for an increase of EUR 4,051 million, and investments made in 2017.

As a result, financial leverage increases to 43.5% compared to 42% as fo 31 December 2016 (Note 21).

Millions of euros	2017	2016
Equity	42,733	40,687
Gross debt	37,115	32,026
Cash and cash equivalents (Note 20)	(3,197)	(1,433)
Derivative assets and other	(1,034)	(1,179)
Net debt	32,884	29,414
Leverage	43.5%	42.0%

3.2. Credit rating of IBERDROLA senior debt

Agency ratings are:

Agency	Long-term ⁽¹⁾	Outlook	Date
Moody's	Baa1	Positive	26/04/2016
Fitch	BBB+	Stable	08/07/2016
Standard & Poors	BBB+	Stable	22/04/2016

⁽¹⁾ Warning: The above ratings may be revised, suspended or withdrawn by the rating agency at any time.

3.3. Debt structure

Regarding the evolution of the financing cost of the Company, at 31 December 2017 it stood at 2.91% compared to 3.17% in the same period of the previous year (Note 26 of the Consolidated financial statements).

The structure of the debt by interest rate and currency can be seen in Notes 5 and 26 of the Consolidated financial statements.

In accordance with the policy of minimizing the financial risks of the Company, foreign currency risk has continued to be mitigated through the financing of international businesses in local currencies (Sterling Pound, Brazilian Real, US Dollar) or in their functional currencies (US dollar, in the case of Mexico).

IBERDROLA has a strong liquidity position at the end of 2017, exceeding EUR 10,061 million (Note 5 of the Consolidated Financial Statements).

.Million euros

Credit line maturities	Available
2018	795
2019	364
2020 onwards	5,705
Total	6,864
Cash and cash equivalents (Note 20)	3,197
Total adjusted liquidity	10,061

IBERDROLA presents a comfortable profile of debt maturities, with more than six years of average debt life. IBERDROLA's debt maturity profile at the end of 2017 can be seen in Note 26 of the Consolidated financial statements.

3.4. Working capital

Working capital shows an increase of EUR 730 million since December 2016 as a result mainly due to several different effects partially offsetting one another:

- An increase of trade receivables of EUR 859 million after the global incorporation of Neoenergía.
- A net increase in working capital associated with assets held for disposal, gas business in the United States and Canada, in EUR 221 million.
- The increase in inventories of EUR 236 million, mainly due to the increase in the cost of green certificates (EUR 277 million, see Note 18) which is are offset by Liability provisions for emissions (EUR 386 million). The rest of the inventories decreased by EUR 40 million.
- An increase of short-term provisions of EUR 483 million mainly due to the effect of the emission rights mentioned above.
- Other assets of lesser amounts

(Millions of euros)	31.12.2017	31.12.2016	Change
Assets held for sale	356	-	356
Nuclear fuel	332	323	9
Inventories	1,870	1,634	236
Commercial debtors and other accounts receivable	6,721	5,862	859
Current Financial investments	601	781	(180)
Asset derivative financial instruments (1)	175	322	(147)
CURRENT ASSETS	10,055	8,922	1,133
Liabilities linked to assets held for sale	135	-	135
Provisions	627	144	483
Liability derivative financial instruments (2)	136	339	(203)
Trade and other payables	8,422	8,434	(12)
Current Liabilties	9,320	8,917	403
NETWORKING CAPITAL	735	5	730

⁽¹⁾ It does not include financial debt and debt Assets derivatives. (Note 27)

4. MAIN RISKS AND UNCERTAINTIES

⁽²⁾ It does not include financial debt and debt liabilities derivatives. (Note 27)

4.1 Risk Management System

The IBERDROLA Group is exposed to various inherent risks in the countries, industries and markets in which it operates and the businesses it carries out, which could prevent it from achieving its objectives and executing its strategies successfully.

The Company's Board of Directors, aware of the importance of this matter, has pushed for the mechanisms necessary to be put into place so that the risks relevant to all of the Group's activities and businesses are appropriately identified, measured, managed and controlled, and has established, through the Group's general risk control and management policy, the basic mechanisms and principles necessary for the appropriate management of risk-opportunity with a level of risk which allows:

- attain the strategic objectives formulated by the Group with controlled volatility,
- provide the maximum level of assurance to the shareholders,
- protect the results and reputation of the Group,
- defend the interests of customers, shareholders, other groups interested in the progress of the Company, and society in general, and
- ensure corporate stability and financial strength in a sustained fashion over time.

In the implementation of the aforementioned commitment, the Board of Directors and its Executive Committee have the cooperation of the Audit and Risk Supervision Committee, which, as a consultative body, monitors and reports upon the appropriateness of the system for assessment and internal control of significant risks, acting in coordination with the audit committees existing at other companies of the Group.

All actions aimed at controlling and mitigating risks shall conform to the following basic action principles:

- a) Integrate the risk-opportunity vision into the Company's management, through a definition of the strategy and the risk appetite and the incorporation of this variable into strategic and operating decisions.
- b) Segregate functions, at the operating level, between risk-taking areas and areas responsible for the analysis, control, and monitoring of such risks, ensuring an appropriate level of independence.
- Guarantee the proper use of risk-hedging instruments and the maintenance of records thereof as required by applicable law.
- d) Inform regulatory agencies and the principal external players, in a transparent fashion, regarding the risks facing the Group and the operation of the systems developed to monitor such risks, maintaining suitable channels that favour communication.
- e) Ensure appropriate compliance with the corporate governance rules established by the Company through its Corporate Governance System and the update and continuous improvement of such system within the framework of the best international practices as to transparency and good governance, and implement the monitoring and measurement thereof.

f) Act at all times in compliance with the law and the Company's Corporate Governance System and, specifically, with due observance of the values established in the Code of Ethics and under the principles of zero tolerance for the commitment of illicit acts and fraud situations included in the Prevention of Fraud and Crimes Policy.

The General Risk Control and Management Policy and the basic principles underpinning it are implemented by means of a comprehensive risk control and management system, supported by a Corporate Risk Committee of the Group and based upon a proper definition and allocation of duties and responsibilities at the operating level and upon suitable supporting procedures, methodologies, and tools, including the following stages:

- a) The ongoing identification of significant risks and threats based on their possible impact on key management objectives and the accounts (including contingent liabilities and other off-balance sheet risks).
- b) The analysis of such risks, both at each corporate business or function and taking into account their combined effect on the Group as a whole.
- c) The establishment of a structure of policies, guidelines, limits and risk indicators, as well as of the corresponding mechanisms for the approval and implementation.
- d) The measurement and monitoring of risks, by following consistent procedures and homogeneous standards that are common to the Group as a whole.
- e) The analysis of risks associated with new investments, as an essential element of decision-making based upon profitability/risk.
- f) The maintenance of a system for monitoring of compliance with policies, guidelines, and limits, by means of appropriate procedures and systems, including the contingency plans needed to mitigate the impact of the materialisation of risks.
- g) The periodic monitoring and control of profit and loss account risks in order to control the volatility of the annual income of the Group.
- h) The ongoing evaluation of the suitability and efficiency of applying the system and the best practices and recommendations in the area of risks for eventual inclusion thereof in the model.
- The audit by the Internal Compliance Division of the comprehensive risk control and management system.

In addition, the General Risk Control and Management Policy is further developed and supplemented through the policies listed below which are also subject to approval by the Company's Board of Directors:

- a) Corporate risk policies:
 - Corporate credit risk policy.
 - Corporate market risk policy.
 - Operational Risk Market Transactions Policy.
 - Insurance Policy.

- Investment Policy.
- Financing and Financial Risk Policy.
- Treasury Share Policy.
- Risk Policy for Equity Interests in Listed Companies.
- Reputational Risk Framework Policy.
- Procurement Policy.
- Information Technology Policy.
- Cybersecurity Risk Policy.
- b) Risk policies and limits of the various businesses of the Group:
 - Risk policy for the generation and retail business of the IBERDROLA Group.
 - Risk policy for the renewables business of the IBERDROLA Group.
 - Risk policy for the network business of the IBERDROLA Group.
 - Risk Policy for the Real Estate business of the IBERDROLA Group.

The General Risk Control and Management Policy, as well as a Summary of the Corporate Risk Policies and a Summary of the Specific Risk Policies for the various Group businesses, are available on the corporate website (www.iberdrola.com).

In order to align the risk impact with the established risk appetite, the Executive Committee of the Board of Directors, acting at the proposal of the business or corporate divisions involved and upon a prior report from the Group's Risk Committee, annually reviews and approves specific guidelines regarding the Group's risk limits.

Subholding companies are responsible for adopting the Group's risk policies and specifying their application, approving the guidelines regarding specific risk limits, addressing the characteristics and unique features businesses in each country.

The head of business companies of each country must approve - in their respective administration boards - the specific risk limits applicable to each one and implement the control systems required to ensure their compliance.

The risk factors to which the Group is generally subject are listed below:

- a) Corporate Governance Risks: the Company assumes the need to safeguard the interests of the Company and the strategy of sustained maximisation of the economic value of the Company and its long-term success, in accordance with the Group's corporate interest, culture, and corporate vision, taking into account the legitimate public and private interests that converge in the conduct of all business activities, particularly those of the various stakeholders and communities and regions in which the Company and its employees act. A fundamental requirement for the foregoing is compliance with the Company's Corporate Governance System, made up of the By-Laws, the Corporate Policies, the internal corporate governance rules, and the other internal codes and procedures approved by the competent decision-making bodies of the Company and inspired by the good governance recommendations generally recognised in international markets.
- b) Market risks: defined as the exposure of the Group's results and equity to changes in market prices and variables, such as exchange rates, interest rates, commodity prices (electricity, gas, CO2 emission rights, other fuel, etc.), prices of financial assets and others.
- c) Credit Risks: defined as the possibility that a counterparty fails to perform its contractual obligations, thus causing an economic or financial loss to the Group. Counterparties can be final customers, counterparties in financial or energy markets, partners, suppliers, or contractors.
- d) Business Risks: defined as the uncertainty regarding the performance of key variables inherent to the business, such as the characteristics of demand, weather conditions, the strategies of different players, and others.
- e) Political and Regulatory Risks: defined as those arising from regulatory changes made by the various regulators, such as changes in compensation of regulated activities or in the required conditions of supply, or environmental o tax regulations, including risks related to political changes that could affect the legal security and to the legal framework applicable to the Group's businesses in each jurisdiction, the nationalization or expropriation of assets, the operating licenses cancelation and the previous end of the contracts of the administration.
- f) Operational Risks: defined as those related to direct or indirect economic losses resulting from inadequate internal procedures, technical failures, human error, or as a consequence of certain external events, including the economic, social, environmental, and reputational impact, as well as legal and fraud risks.
- g) Reputational Risks: potential negative impact on the value of the Company resulting from the conduct of the Company that is below the expectations created among various stakeholders: shareholders, customers, media, analysts, Government, employees, and society in general.

Owing to its universal and dynamic nature, the system allows for the consideration of new risks that may affect the Group as a consequence of changes in its operating environment or revisions of objectives and strategies, as well as adjustments resulting from ongoing monitoring, verification, review and supervision activities.

The Audit and Risk Supervision Committee of the Board of Directors periodically monitors the evolution of the Company's risks:

- It reviews the Group's risk quarterly reports, which include monitoring compliance with risk limits and indicators and updated key risk maps, submitted by the Group's director of corporate risks.

It coordinates and reviews risk reports sent periodically, at least semi-annually, by the audit and compliance committees of the main subsidiaries of the Group, being included the subholding companies of the main countries where the Group operates that, along with the risk director appearances are used to prepare a risk report for the Board of Directors at least semi-annually.

For further details, see the section E of *Control systems and risk management* of the Corporate Governance Report 2017.

4.2. Credit risk

The IBERDROLA Group is exposed to the credit risk arising from the possibility that counterparties (customers, suppliers, financial institutions, partners, etc.) might fail to comply with contractual obligations. This exposure may arise with regard to unsettled amounts, to the cost of replacing products that are not supplied, as well as, in the case of dedicated plants, to amounts on which depreciation is pending, of said plants.

Credit risk is managed and limited in accordance with the type of transaction and the credit worthiness of the counterparty. A specific corporate credit risk policy is in place which establishes criteria for admission, approval systems, authorisation levels, scoring tools, exposure measurement methodologies, etc.

With regard to credit risk on trade receivables, the historical cost of defaults has remained moderate and stable at close to 1% of total turnover of this activity, despite the current difficult economic environment. Regarding other exposure (counterparties in transactions with derivatives, placement of cash surpluses, sale transactions involving energy and guarantees received from third parties), in 2017 and 2016 there have been no material non-payments or losses.

The Group's Networks businesses in Spain and the UK do not sell energy. Therefore their credit risk is limited. In the case of Brazil and the United States, the activity of supplying to regulated tariff allows to recover, in general terms, commercial default.

4.3. Financial risk

4.3.1. Interest rate risk

The IBERDROLA Group is exposed to the risk of fluctuations in interest rates affecting cash flows and market value in respect of items in the balance sheet (debt and derivatives). In order to adequately manage and limit this risk, the IBERDROLA Group manages annually the proportion of fixed and variable debt and establishes the actions to be carried out throughout the year: new sources of financing (at a fixed, floating or indexed rate) and/or the use of interest rate derivatives.

The reference interest rates for the floating rate borrowings are basically Euribor, Libor- sterling pound, Libor-dollar and the CDI in the case of the debt of the Brazilian subsidiaries.

Additionally, as of 31 December 2017, the IBERDROLA Group has arranged derivatives to cover the interest rate risk of the future financing for a nominal amount of EUR 3,620,000 thousand euros, which help to mitigate the interest rate risk.

The debt structure at 31 December 2017, once considered the hedge provided by the derivatives traded, is included in the Note 5 of the Consolidated financial statements.

4.3.2. Foreign currency risk

As the IBERDROLA Group's presentation currency is the euro, fluctuations in the value of the currencies in which borrowings are instrumented and transactions are carried out with respect to the euro, mainly the Sterling Pound, the US Dollar and the Brazilian Real, may have an effect on the finance costs, profit and equity of the Group.

The following items could be affected by exchange rate risk:

- Proceeds and payments for supplies, services or equipment acquisition in currencies other than the local or functional currencies.
- Income and expenses incurred by certain foreign subsidiaries indexed to currencies other than the local or functional currencies.
- Debt and financial expense denominated in currencies other than the local or functional currency.
- Profit or loss in consolidation of the foreign subsidiaries.
- Consolidated carrying amount of investments in foreign subsidiaries.
- Expense for taxes in Mexico because the functional currency (United States dollar) differs from the currency for calculation purposes of corporate taxes (Mexican peso).

The IBERDROLA Group reduces this risk by:

- Ensuring that all its economic flows are carried out in the currency of each Group company, provided that this is possible and economically viable and efficient, through the use of derivatives if not.
- As far as possible, this covers the risk of transfer of earnings scheduled for the current year, thereby limiting the ultimate impact on Group earnings.
- As far as possible, this covers the expense of the exchange rate risk in the Mexican corporate taxes, limiting the overall impact on the earnings of Mexico and of the Group.
- Mitigating the impact on the consolidated net asset value of a hypothetical depreciation of currencies due to Group's investment in foreign subsidiaries by maintaining foreign currency debt, as well as through financial derivatives.

The sensitivity of the consolidated profit and equity of the IBERDROLA Group to changes in the dollar/euro, sterling pound /euro and Brazilian real/euro exchange rate is as referred to in Note 5 of the Consolidate financial statement. The detailed information interest rate and currency can be seen in Note 26 of the Consolidated financial statement.

4.3.3. Liquidity risk

Exposure to adverse situations in the debt or capital markets or in relation to the IBERDROLA Group's own economic-financial situation may hinder or prevent the IBERDROLA Group from obtaining the financing required to properly carry on its business activities.

IBERDROLA Group's liquidity policy is designed to ensure that it can meet its payment obligations without having to obtain financing under unfavourable terms. For this purpose, various management measures are used such as the arrangement of committed credit facilities of sufficient amount, deadline and flexibility, diversification of the coverage of financing needs through access to different markets and geographical areas, and diversification of the maturities of the debt issued.

The balances for cash, liquid assets and available committed credit facilities are sufficient for meeting the Group's liquidity (not including NEONERGIA) needs for more than 18 months, not including the new financing facilities.

The figures relating to changes in the Company's debt are included in Notes 26 and 52 to the Consolidated financial statements.

4.4. Country risk

The activities of the different businesses that the IBERDROLA Group developed are submitted, in greater or lesser extent depending on their characteristics, to various risks inherent to the country where they operate:

- Imposition of monetary and other restrictions on the movement of capital.
- Changes in the trade environment and administrative policies.
- Economic crisis, political instability and social riots affecting operations.
- Nationalisation or expropriation of assets.
- Exchange rate fluctuations.
- Cancelation of operating licenses.
- Anticipated termination of Government contracts.
- Regulatory changes.

The results of our international subsidiaries, their market value and their contribution to the Group may be affected by such risks.

The IBERDROLA Group's main operations are focused on Spain, United Kingdom, USA, Brazil and Mexico, countries with low or moderate risk, whose credit ratings at 31 December 2017 are as follows:

Country	Moody's	S&P	Fitch
Spain	Baa2	BBB+	BBB+
United Kingdom	Aa2	AA	AA
United States	Aaa	AA+	AAA
Brazil	Ba2	BB	BB
Mexico	A3	BBB+	BBB+

The presence in countries other than the ones mentioned above is not significant at Group level from an economic point of view.

4.5. Activity risks

The activities of the various businesses developed by the IBERDROLA Group are subject to various risks including market, credit, operational, business, regulatory and reputational risks arising from the uncertainty of the main variables that affect them.

It must be noted that on 24 August 2017, after the integration of Elektro (formerly 100% owned by IBERDROLA) in Neonergia, the Group passed to control 52.45% of said group, globally consolidating said activity. Neoenergia operates in the sectors of electricity generation, transmission, and distribution in Brazil.

The analysis by businesses made in this section consider the management model in force at the end of 2017, where the hydraulic capacity in Spain is managed and operated by Generation and Customers business, given that the transfer notice of said activity to the Renewable business is pending development, and is forecast to be carried out in 2018.

The gas business in the United States and Canada is considered a non-strategic asset by Avangrid, in its publication of its 2016 annual results on 21 February 2017.

4.5.1. Regulatory and political risks

Companies in the IBERDROLA Group are subject to laws and regulations concerning prices and other aspects of their activities in each of the countries in which they operate. The introduction of new laws and regulations or amendments to the already existing ones may have an adverse effect on the Group's operations annual results and economic value of businesses.

The following paragraphs are a few of the new major regulatory measures that were approved in 2017 or are due to be implemented in 2018:

Spain:

 On 23 December, the Royal Decree-law 7/2016 and Royal Decree 897/2017 and Order ETU/943/2017 which regulate the mechanism for financing the cost of Social tariff and other measures to protect vulnerable electricity consumers ("social tariff") and other protections measures for home electricity consumers implemented by retail companies.

United States:

 Approval of rate cases by the regulator of the Estate of New York RG&E and NYSEG, valid from July 2016 for a period of three years, in satisfactory terms for the Company.

Brazil:

 Approval by the Brazilian regulator ANEEL of the new terms for the new regulatory period of Celpe, valid for a period of four years, in satisfactory terms for the Company. Annual rates for Coelba, Cosern and Elektro were revised. Lastly, ANEEL's publication of Technical Note No. 179/2017-SRM must be noted, which establishes greater requirements in terms of corporate governance for electricity distribution companies.

Mexico:

Approval of the Energy Regulatory Commission's Agreement A/058/2017 which defines the methodology to determine the final tariff's calculations and adjustment, along with operations tariffs that will apply to the subsidiary production company "CFE Suministrador de Servicios Básicos" from 1 December 2017 to 31 December 2018. Once this new methodology to calculate the electricity tariff, which was announced in 2016, was published, regulatory uncertainty lessened.

4. 5. 2. Network business risk

The regulations of each country in which the IBERDROLA Group's network businesses operate establish regularly revised frameworks, guaranteeing that these businesses will receive reasonable and predictable returns. These frameworks include penalties and bonuses for efficiency, service quality and, eventually, for default management, which have a minor, immaterial impact overall. Any change to the aforementioned regulation may represent a risk for said business.

In general, the profitability of the IBERDROLA Group's network businesses is not exposed to demand risk, except for the Brazilian subsidiaries.

The IBERDROLA Group's network businesses in Spain and in the United Kingdom are not exposed to any market risk associated with energy prices.

The network businesses in Brazil and some of the businesses in the USA sell energy to regulated customers at a price determined by certain previously approved tariffs. In the case of a prudent procurement management and as established by the regulator, the regulatory frameworks in both countries guarantee sums will be collected in subsequent tariff readjustment reviews for possible purchase price deviations from those previously recognised in the tariff.

Given the above, in the case of extraordinary events (extreme drought in Brazil as happened in 2014, catastrophic storms in USA, etc.), occasional temporary gaps between payments and collections may arise with an impact on the cash flows of some of these businesses and eventually on profits recognised under IFRS.

Spanish networks:

The present regulatory model is based on Electricity Sector Law 24/2013 of 26 December, establishing regulatory six-year periods and profitability for distribution activity calculated as the yield on government bonds plus 200 basis points. Profitability was set at 6.5% for the first regulatory period, which was extended until the end of 2019. Fluctuation of the financial remuneration rate used between two consecutive years may not exceed 50 basic points in absolute value.

Royal Decree 1048/2013 of 27 December establishing the methodology to calculate remuneration for electricity distribution activities defines a methodology based on standard unit costs of investment and operation. The remuneration of facilities will be calculated on the basis of the real audited cost and the standard cost recognised for each investment, and therefore profitability will depend on the constructive efficiency achieved.

Moreover, in accordance with current regulations, the distribution company does not sell any energy to customers, and it is therefore not exposed to market risk at the present time. This means that fluctuations in demand have no direct impact on the income statement.

United Kingdom Networks:

The group operates in the United Kingdom through its subsidiary Scottish Power Ltd and the following licences:

- SP Distribution PLC (SPD)
- SP Manweb PLC (SPM)
- SP Transmission PLC (SPT)

The current regulatory model for SPD and SPM is based on the RIIO ED1 framework, and on the RIIO T1 framework in the case of SPT. The latest tariff review for electricity distributors (RIIO ED1), including SPD and SPM, is valid from April 2015 to April 2023. The SPT review (RIIO T1) is valid from April 2013 to April 2021.

The weighted average cost of capital or WACC is set for each tariff period. The current real WACC after tax recognised for distribution activities was 3.67% from January to March, and 3.59% from April to December, whereas for transmision activities it was 4.46% from January to March and 4.37% from April to December.

The regulator (OFGEM) also establishes incentives/penalties for safety, environmental impact, consumer satisfaction, social obligations, connections and quality, which may have an effect on the income statement.

United States Networks:

The Iberdrola Group operates in the US through its listed subsidiary Avangrid, which in turn has the following subsidiary network companies:

- New York State Electric & Gas (NYSEG), New York, with a 3-year rate case valid until 2019 (base ROE 9% for distribution).
- Rochester Gas and Electric (RG&E), New York, with a 3-year rate case valid until 2019 (base ROE 9% for distribution).
- Central Maine Power (CMP), Maine, conducting electricity distribution business with an annual extendable rate case (base ROE 9.45% for distribution), and transmission business (base ROE 10.57%).
- United Illuminating (UI), Connecticut, with rates in force for conducting electricity distribution business (base ROE 9.1%) and for transmission business (base ROE 10.57%).
- It also has the following natural gas distribution companies: Maine Natural Gas Corporation (MNG),
 Connecticut Natural Gas (CNG), Southern Connecticut Gas (SCG) and Berkshire Gas (BG).

Companies carrying on regulated business in the US are exposed to risks associated with the regulations of a number of federal regulatory bodies (FERC, CFTC, DEC) and state commissions, responsible for establishing the regulatory frameworks of the companies regulated (tariffs and other conditions).

The distributors' tariff plans have been designed to reduce the risk to which business is exposed through mechanisms for deferral, reconciliation and provisions for costs. Regulated distributors pass on the costs of gas and electricity to end customers, thereby mitigating any impacts of fluctuations in demand.

Brazilian Networks:

The IBERDROLA Group operates in Brazil through its listed subsidiary NEOENERGIA, which in turn has the following subsidiary network companies:

- Elektro Redes, S.A. (in the states of Sao Paoloand Mato Grosso do Sul), current rates until August 2019 and WACC of 8.09%;
- Companhia de Eletricidade do Estado do Bahia ("Coelba"), operating in the state of Bahía. rates in force until April 2018 and WACC of 7.5%;
- Celpe Energetica de Pernambuco S.A. ("Celpe"), operating in the state of Pernambuco. rates in force until April 2021 and WACC of 8.09%;
- Companhia Energética do Rio Grande do Norte ("Cosern"), operating in the state of Rio Grande do Norte. Rates in force until April 2018 and WACC of 7.5%;.
- Several transmission assets with their own regulation.

The Brazilian regulatory framework is based on a system of price cap that is revised every four or five years, depending on each company's concession contract and is updated annually by the regulator. COELBA and COSERN have a five-year term and CELPE and ELEKTRO have a four-year term.

Brazilian legislation applicable to regulated electricity distribution business establishes two types of costs: i) "Plot A", which includes the costs of energy, transport and other obligations and regulatory charges, which can be recovered through tariffs ("pass through") as part of the conditions and limits imposed by ANEEL, except for other obligations and regulatory charges which can always be recovered through tariffs, and ii) "Plot B", which includes remuneration for investment and the costs of operation and maintenance, which generate either an incentive or a risk for the investor.

ANEEL also acknowledges other smaller incentives to minimise default and impairment of quality and customer satisfaction that can affect the income statement.

Pursuant to current legislation, electricity distribution companies:

- a) transfer the cost of supplying electricity to the end customer through the regulated tariff, provided the energy contracted is between 100% and 105% of the demand required.
- b) risk penalties imposed by the regulator ANEEL, when this is less than 100% due to the exclusive responsibility of the distributor.
- c) risk price fluctuations when it is above 105%.

4.5.3. Renewable business

The regulations of each country in which the Group operates establish regulatory frameworks aimed at promoting the development of renewable energies based on formulas which may include premiums, green certificates, tax or regulated tariff deductions, which allow investors to obtain sufficient and reasonable return. Any change to the aforementioned regulation may represent a risk for said business.

In addition to the aforementioned regulatory risk, Group's renewable energy businesses may be subject to a greater or lesser extent, to wind resource risk and market risk.

The Group considers that the wind resource risk is mitigated through the high number of wind power farms available and their geographic diversification, and the trend to compensate less wind energy periods with those with high wind energy on the medium term.

Regarding the electricity price risk the following should be mentioned:

Renewables business - Spain

The Group currently has a renewable installed capacity in Spain of: 5,752 MW wind farms, 303 MW mini hydro, and 50 MW solar thermal.

Subsequent to the approval of the new regulatory framework (the Royal Decree-law 9/2013, of 12 July, Law 24/2013, of 26 December, the Royal Decree 413/2014, of 6 June, and the Ministerial Order IET/1045/2014, of 16 June and the Ministerial Orden ETU/130/2017, of 17 February), all renewable energy generated since 2014 is remunerated at market price plus a premium per MW. This guarantees a reasonable regulated return based on a recognised standard investment.

- The reasonable rate of return of the investments is defined on the basis of the average yield on 10 year government bonds plus 300 basic points (that is, 7.4% for the first six-year period ending on 31 December 2019).
- This return is readjusted every three years within predetermined bands to cover any possible deviation in market price.
- The facilities that began operating in 2003 or before have a null premium, and therefore are fully exposed to market risks.

For the purposes of mitigating risk, the Renewables business in Spain annually sells the production exposed to market risk to the Spanish division of the Generation and Customers business at a market price that is reviewed each year. In this manner, the year-on-year volatility of the loss and profit account due to the markets is practically eliminated.

Renewables business - United Kingdom

The Group's current renewables installed capacity in the UK is: 1,906 MW in onshore wind plants and 194 MW in offshore wind plants, operational under current "Renewables Obligation" legislation. This means that income is partially exposed to the risk of the market price for electricity in the UK, as the revenues obtained comprise income from the price of the energy produced and the sale of renewables obligation certificates (ROC certificates).

UK regulations impose minimum ROC obligations per MWh sold on sellers of electricity, 10% more than the system envisages producing, and determine the price at which the rest must buy, which in practice amounts to a floor price at the price of the ROCs.

New renewable technology plants, implemented from 1 April 2017 (onshore wind plants, implemented as of 12 May 2016), are subject to the new "Contract for Difference" remuneration scheme, or CfD, which eliminates market risk for 15 years. Such is the case of the East Anglia offshore plant of 714 MW, currently under construction.

The fixed prices for these projects are established on a project-by-project basis through public tenders. The counterparty guaranteeing this price, "The Low Carbon Contracts Company", finances its potential payments by charging a fee to distributors depending on their market share, and therefore the credit risk with the counterparty is practically zero.

As is the case in Spain, the positions exposed to market risk of the renewables businesses in Spain and the UK are managed and included in their position in the Deregulated businesses in these countries, to be hedged in the most efficient manner possible.

In addition, the Group has a 15 MW onshore wind farm in the Republic of Ireland at market price.

Renewables business - United State

The Iberdrola Group conducts its renewables business in the US through its listed company Avangrid, which has an installed capacity of 6,145 MW in onshore wind plants, and 119 MW in operational photovoltaic plants.

At the present time, approximately 65% of the energy produced is sold on fixed-price long-term contracts with third parties. Some 17% have coverage contracts of some type, and the remaining 18% of the energy produced is sold to the market in more or less short terms.

With electricity prices around USD 30/MWh, a 5% change in prices could give rise to an impact of EUR ±4 million on operating results.

Renewables business - Mexico

In Mexico the business now has an installed capacity of 367 MW in operational onshore wind plants, with two sale schemes: a) fixed-price sale to the CFE on a long-term contract and b) sale to third parties with a discount on the official price published by the CFE. In addition, 326 MW wind and 270 MW solar plants are being constructed.

The new tariff methodology approved in December 2017 reduces the business' exposure to market prices of different commodities in international markets.

Renewables business - Brazil

In Brazil the business now has an installed capacity of 516 MW in onshore wind plants, all operating on long-term contracts (PPAs) with a fixed price for the country's distributors. Excesses and shortages in the production contracted with the distributor are settled over periods of four years, and excesses must be offered and shortages purchased at market prices.

Renewables business in other European countries

The offshore wind farm Wikinger (Germany) is highlighted, with startup forecast for the first quarter of 2018. Pursuant to German regulations, the new Wikinger plant will have a fixed price for the energy it produces over the first 15 years of operation on a CfD contract, similar to the aforementioned setup in the UK.

Installed capacity is currently 605 MW in wind plants and 6 MW in photovoltaic facilities operational in other European countries. Regulations in these countries make a distinction between two energy sale schemes: sales at the tariff (Portugal, Greece, Cyprus and Hungary), or sales at market price (Romania).

4.5.4. Generation and Retail Businesses

The activities of the Group's deregulated businesses are subject to a range of market, credit, operating, business and regulatory risks, coming from the uncertainty of the main variables that affect them, such as: fluctuations in commodity prices, changes in hydroelectric and wind energy production (of both the Group's and of third parties), changes in electricity and gas demand, and plant availability.

The main variable that affects IBERDROLA's result in terms of raw materials' market price is the electricity price. However, in many countries, electricity prices are strongly correlated with the price of the fuels used in its production. Therefore, risk studies are carried out on fuel price trends and CO_2 . These price risks are not only made patent in the electricity generation and retailing business but also in the following activities, with a much lower weight in the business' total results.

- The gas retailing business, in which a large portion of the IBERDROLA Group's operating expenses relate to the purchase of gas for customer supplies. The IBERDROLA Group is therefore exposed to the risk of variations in the price of gas.
- Unhedged energy transactions (discretionary trading).

To a large extent, the mutual closing out of positions by the generation business and retailing business mitigates the market risk to which the Group is exposed. The remaining risk is mitigated by diversifying sale and purchase agreements, and specific clauses therein, as well as by arranging derivatives.

Deregulated and retail businesses in Spain

Commodities' Price risk

Given current market conditions, the production price of the coal-fired power plants defines, to a large extent, the price of electricity in Spain since coal is the marginal technology necessary to cover electricity demand. Consequently, the price of coal conditions revenues from the other less expensive technologies which are used to cover demand. With coal prices around USD 90 per tonne, a 5% change in the prices could give rise to an impact of EUR ±20 million on operating results.

The price of CO2 influences the cost of production in coal-fired power plants. With coal prices around EUR 7 per tonne, a 5% change in the prices could give rise to an impact of EUR ±4 million on operating results.

The majority of gas supplied in Spain is paid indexed to the price of oil by means of complex formulas. IBERDROLA Group has another type of agreements of fixed-price supply and with prices not indexed to the market price of oil. These agreements are used for electricity generation, for the consumption of its final customers and for sale to other intermediaries. Due to the fact that the electricity generation margin is covered by the contracting formulas of the system operator, only residual risk remains in sales to final customers and third parties. The risk assumed is reduced and depends on the correlation between the price of oil and the European and international gas prices. In the event of a 5% fluctuation in the oil price, the risk would be EUR ±1million.

Hydraulic risk

Despite having a large water storage capacity, IBERDROLA Group's results depend significantly on the flow contributions. The changes in output with respect to the average value can be up to -4,000 GWh in a dry year and +5,000 GWh in a wet year, the variability would be between EUR ±190 million. The loss of profit is not covered as it is an IBERDROLA Group's inherent risk.

Demand risk

Given the current market condition, where price is primarily determined by the generation cost of coal-fired plants, which make up around 15% of the generation mix, it is not considered that demand fluctuations will impact on marginal technology in the market. The impact on the market price of a 1% change in demand is therefore limited, amounting to approximately EUR 0.25 per MWh.

A moderate drop in demand in Spain does not affect the scheduled output of the Group's nuclear, hydroelectric and wind power plants, since there is a mandatory electricity market in Spain guaranteeing the efficient dispatch of output from all technologies.

Nevertheless, there could be an impact if a drop in electricity demand entails an equivalent reduction in the Group's retail sales and consequent narrowing of margin. This is mitigated to some extent by increasing sales of own energy on the wholesale market.

Taking both effects into account, it is estimated that a 1% fluctuation in demand would have an impact of EUR ±8.5 million overall.

Operational risk

From the perspective of its impact on business results, the main risk arises from nuclear power plant outages (due to stoppages for fuel reloading, in accordance with a pre-established schedule) and hydroelectric power plant outages which are not associated with a large storage reservoir (flow facilities, in which water is not storable). As a result of such outages, production and, therefore, the margin associated with this production are lost. This risk is managed through excellence in the operating and maintenance practices of the plants and a culture focused on total quality and the reduction of operational risks, which allow the impact of this risk to be kept low.

Deregulated and retail businesses in UK

Commodities' Price risk

The IBERDROLA Group does not count on having coal plants in the UK after the closure of current plant Longannet at the end of March 2016. The generation capacity in said country is comprised of 2,000 MW combined cycles and 566 MW hydraulics plants.

In the British market, geared towards thermal power generation, the clean spark spread has become the appropriate index to follow the uncertainty of the margins of coal-fired power plants. Despite the fact that commodities (coal, CO2 and electricity) are listed separately, the uncertainty of the unit margin is studied since it has been detected that it is a better indicator of the uncertainty of the results. With clean spark spread levels around GBP 4 per MWh, a 5% change in the spreads could give rise to an impact of EUR 7 million on operating results.

IBERDROLA Group does no longer have long-term agreements at a fixed price.

Recently, the British government has decided to set a maximum price for the gas and electricity tariffs which a mode of customers pay a "standard variable tariff". Throughout 2018, the British government will carry out a question and answer procedure on the calculation method of said maximum price, which is not expected to enter into effect until 2019. In any case, the setting of this maximum price is expected to negatively affect the retail business results of the Group in the UK.

Demand risk

Electricity consumption demand is usually one of the most significant risk factors for any company. However, IBERDROLA currently purchases from third parties a significant portion of the energy it sells (12 TWh in 2017, of a total amount of electricity sold of approximately 22 TWh/year), since it is more profitable to do so under current market conditions than IBERDROLA producing it and using its own thermal power plants. From a business perspective, fluctuations in electricity demand mean that additional amounts of electricity need to be purchased or that these acquisitions need to be reduced. In any case, the profit or loss IBERDROLA obtains from this intermediation is low and much lower than that obtained from its own output. Thus, demand fluctuations have a small impact on profit or loss of EUR ±10 million for every 1% fluctuation in customer demand.

Operational risk

From the perspective of its impact on business results, the main risk arises from the combined cycle power plants outages (due to stoppages for fuel reloading, in accordance with a pre-established schedule). With regard to these outages, all profit or loss obtained from production is committed, although the high operating and maintenance standards of the plants and a culture focused on total quality and the reduction of operational risks, allow the impact on this risk to be kept low.

Deregulated and retail businesses in Mexico

Commodities' Price risk

Electricity generation at Iberdrola Generación Mexico is gas-intensive. Gas prices therefore comprise an essential component of this risk.

Approximately 82% of the electricity generated in Mexico is sold through long-term sales agreements (to CFE and, to a lesser extent, other major industrial customers), whereby the risk associated with the price of gas for generating this electricity is passed on.

The remaining energy is sold to customers at a price linked to the official tariffs published by CFE. Said tariffs depend on the cost of the inherited contracts (originating before the Electricity Sector's recent reform) and on the market price of electricity.

Demand risk

The structure of the agreements IBERDROLA has entered into in Mexico isolates the business results from electricity demand fluctuations. Revenues come mainly from plant availability and only the sales indexed at the official Mexican tariff are subject to a certain extent by the fluctuation in demand. Nonetheless, most of the plants have committed sales exceeding their production capacity and therefore a shift in demand would not have an impact on their operations or results as the electricity generated would be sold to another customer. Changes in electricity demand in Mexico therefore have no effect on results.

Operational risk

From the perspective of its impact on business results, the main risk arises from the combined cycle power plants outages (due to stoppages for fuel reloading, in accordance with a pre-established schedule). With regard to these outages, all profit or loss obtained from production is committed, although the high operating and maintenance standards of the plants and a culture focused on total quality and the reduction of operational risks, allow the impact on this risk to be kept low.

Deregulated and retail businesses in Brazil

The Group had 2,113 MW hydraulic generation installed and 533 MW combined cycle in Brazil at year-end, of which approximately 80% of the hydraulics and 100% of the combined cycle generation are contracted long-term with electricity distributors in countries through PPA contracts.

The rest of the production is sold to qualified customers with an expectation of between one and two years, according to Brazilian market prices. With market prices in the area of 220 R\$/MWh, a price fluctuation of 5% would affect the results by some EUR 4 million.

Gas supply operations

The IBERDROLA Group maintains an adequate balance in the global mix, both in terms of the number of supplier countries and the type of supply (gas via pipelines or GNL), which is demonstrated in that it has five suppliers from different areas (Norway, Nigeria, United States and Lybia, among others).

In the Spanish case, gas supply is guaranteed through long-term agreements. The 23% of this mix of agreements is at a fixed price and the remainder is linked to the prices of various fuels on international markets.

Gas supply in Mexico is secured through long-term agreements with PEMEX and CFE at a price linked to international natural gas prices in the US or contracting in the United States and, therefore, with price that depends on the same gas prices in that country.

Unhedged energy transactions (discretionary trading)

Discretionary trading of electricity, gas, emissions allowances and other fuels and associated products performed by some of the Group's businesses is residual and the overall risk thereof is mitigated using individual stop-loss limits, whose total aggregate can never exceed 2% of the Consolidated net profit for the period, pursuant to the market risk policy approved by IBERDROLA, S.A.'s Board of Directors.

IBERDROLA has reduced discretionary trading in recent years in line with the widespread move away from market speculation. At the end of December 2017, the notional value of derivatives used in speculative trading (calculated in accordance with the criteria set forth in the European Market Infrastructure Regulation (EMIR)) was below EUR 83 million versus EUR 91 million at 31 December 2017. In any case, these values are much lower than EUR 3,000 million and 1,000 million threshold that is set for non-financial companies in the European regulation (EMIR).

4.5.5 Other operational risks

All of the IBERDROLA Group's activities, direct or indirect losses may arise as a result of inadequate internal procedures, technical failures, human error or external factors.

Specifically, the IBERDROLA Group is also exposed to the following operational risks:

- Risk of malfunctions, explosions, fire, toxic spillages or polluted emissions in gas and electricity distribution networks and generating plants.
- Risks concerning extreme meteorological conditions and other instances of force majeure.
- Risk of sabotage and/or terrorism.

Any of these risks could cause damage or destruction to the IBERDROLA Group's facilities, as well as injuries to third parties or damage to the environment, along with the ensuing lawsuits, especially in the event of power outages caused by accidents at our distribution networks and possible penalties imposed by the authorities.

Although many of these risks are unpredictable, the IBERDROLA Group mitigates them by carrying out the necessary investments, implementing operation and maintenance procedures and programmes (supported by quality control systems), planning appropriate employee training, and taking out the required insurance covering both material damages and civil liability.

In relation to the insurance cover, IBERDROLA has international insurance programmes to cover equity (insurance for material damages, machinery breakdowns, loss of profits, damages from natural disasters and risks arising from construction work) and third-party liabilities (general civil liability, liability for environmental risks, professional civil liability, etc.).

However, this insurance does not completely eliminate operational risk, since it is not always possible, or it is not in its interest to pass such risk on to insurance companies. In addition, cover is always subject to certain limitations.

Risks in connection with nuclear business

The IBERDROLA Group's nuclear power plants in Spain are also exposed to risks relating to their operations and risks arising from the storage and handling of radioactive materials.

- Constitutional Spanish law caps the liability of nuclear power plant operators in the event of a nuclear accident at EUR 700 million. This liability for a nuclear accident must be compulsorily insured by the operator of Spanish nuclear power plants. The IBERDROLA Group meets this obligation by taking out Nuclear Civil Liability insurance policies for each plant. However, Law 12/2011, of 27 May, concerning civil liability for nuclear damage or damage caused by radioactive materials, will increase the operator's liability ceiling and the consequent ceiling on mandatory insurance to EUR 1,200 million for nuclear power plants. The law will enter into force when all signatories of the Paris and Brussels Agreements ratify the 2004 Amendment Protocols, as established in these agreements.
- Accordingly, it is important to point out the indirect economic risk to which the aforementioned power plants are exposed as a result of a possible serious incident in Spain or in other country could affect the periodic renewals of their compulsory operating licences and the increase in their safety investments.

Environmental and climate change risks

IBERDROLA accepts that the environment places constraints on all human activities and is a factor of companies' competitiveness, and it is committed to promoting innovation in this field and also ecoefficiency, to gradually reducing the environmental impact of its activities, facilities, products and services, and striving to ensure that its activities are congruent with future generations' legitimate right to an appropriate environment.

The Group undertakes and promotes this commitment through its policies. IBERDROLA currently has three specific policies in order to manage environmental issues: environmental policy, anti-climate change policy and biodiversity policy (available at www.iberdrola.com), which set forth the principles through which the Company will continue to improve its environmental management.

Moreover, once again IBERDROLA featured on the global Dow Jones Sustainability a worldwide benchmark for recognising corporate contributions to sustainable development, and also on other internationally renowned sustainability indexes. It is the only utility to have earned this distinction since the Index was created in 1999.

With regard to climate change, the Group recognises the gravity of the threat that global warming implies, to which governments, multi-lateral agencies, the private sector, and society as a whole must necessarily confront jointly and in a coordinated manner. In this regard, the Company promises to assume a leadership role in the fight against climate change and develop, among others, the following guiding principles: i) prevent pollution [by] gradually reducing the intensity of emissions, ii) promote electrification, energy efficiency and smart grids, iii) support international negotiation procedures and significant participation of the private sector to fulfil goals 7 and 13 of the SDG approved by the UN, and the climate goal included in the Paris Climate Summit, iv) support an emissions market that creates a strong and sustainable price signal, and v) support a tax system that incorporates the "polluter pays" principle that not only includes the electricity production sector.

Climate change may translate into the following risks in the medium-term:

- More extreme climate situations that impact the generation and distribution assets, such as greater operation and maintenance costs, and insurance premiums.
- Fluctuations in wind and hydraulic resources
- Fluctuation in the gas and electricity demand levels (due to the effects of temperatures)
- Decrease of the profits forecasted for existing thermal plants (due to regulatory restrictions, CO2 prices, operational events...)
- Impact in wholesale electricity market due to massive development of renewables
- Legislative and regulatory changes

Operational risk of operations in markets

Market trading conducted by the Group's various energy trading desks and treasury dealers is also exposed to operational risk due to possible inappropriate processes, technological faults, human error, fraud or any other external or internal event.

This risk is mitigated by following the operational risk policy when trading on the market based on a robust risk control culture, a proper segregation of duties, the publication of clear processes and policies and secure and flexible information systems. This policy sets specific thresholds and guidelines applicable to all trades performed in accordance with the principle of proportionality.

Risks in connection with cybersecurity

IBERDROLA Group companies may be affected by threats and vulnerabilities in connection with information, control systems or information and communications systems used by the Group, or by any consequences of unauthorised access to or the use, disclosure, degradation, interruption, modification or destruction of information or information systems, including the consequences of acts of terrorism.

These risks are managed in accordance with the basic principles of the cybersecurity policy, which takes the necessary measures to guarantee secure usage of information and communications systems and other cyber-assets, bolstering detection, prevention, defence and response capacities to counter cyberattacks.

The IBERDROLA Group currently has specific insurance protection against cyber risks under the terms allowed by the market, and will be regularly reviewed in view of the rapid evolution and extensive variety of cyber risks.

4.5.6 Legal risks

The IBERDROLA Group companies are part of a certain in-court and out-of-court disputes within the ordinary course of their activities, the final result of which, in general, is uncertain. An adverse result, or an out-of-court resolution thereof or other proceedings in the future could have a material adverse effect on our business, financial situation, operating results and cash flows. However, the Group's legal advisers believe that the outcome of the aforementioned disputes will not have a significant effect.

Notes 6.b. and 45 of the Consolidated financial statements contain a more detailed description of the most significant matters.

4.6. Risks materialised during the year

For further details, see the section E of *Control systems and risk management* of the Corporate Governance Report 2017.

5. SIGNIFICANT SUBSEQUENT EVENTS TO YEAR END

Subsequent events to year end are described in Note 52 of the financial statements.

6. RESEARCH AND DEVELOPMENT ACTIVITIES

IBERDROLA is now a leading multinational group which has become the utility of the future thanks to its innovative strategy which encompasses all its business units and areas of activity. Thanks to a constant commitment to innovation, Iberdrola is now Spain's most innovative utility and the third most innovative in Europe in the European Commission's classification.

In 2017, Iberdrola spent more than EUR 246 million on R&D&i activities, 17% more than in the previous year. These resources were basically directed at projects relating to clean energy, smart grids, the development of customised solutions for customers and the digital transformation.

Looking ahead, commitment to innovation will continue to be a priority to assure sustainability, efficiency and competitiveness and keep IBERDROLA at the forefront of development of the new products, services and business models that are transforming the sector:

- <u>Disruptive technologies</u>, which are increasingly efficient, sustainable and respectful of the
 environment, enabling the functioning of facilities and processes to be optimised, and competitive
 innovative products and services that meet customers' needs with a greater degree of personalisation
 of contents and offerings;
- <u>Digitisation and automation</u> in all businesses and processes, to create value in the management of
 the life cycle of assets, optimisation and aggregation of the grid and the design of integrated services
 for the new digital customer profile. The digital transformation will be based on new technologies such
 as blockchain, big data, the Internet of Things, virtual reality, artificial intelligence, etc. at all levels of
 the company.
- Innovation with start-ups, entrepreneurs and suppliers with the aim of developing new disruptive business models, promoting the exchange of know-how and exerting a pull effect on their employees:
 - <u>Iberdrola Ventures PERSEO</u>, IBERDROLA's start-up programme, was created ten years ago
 with the aim of promoting the development of a dynamic ecosystem of start-ups and
 entrepreneurs in the electricity sector.
 - <u>Innovation programme with suppliers</u> based on three paths of action: facilitating access to financing mechanisms, pushing firms' joint creation, and favouring innovative purchasing from SMEs.
- <u>Culture of innovation and talent</u>: Iberdrola promotes a culture of innovation by means of knowledge transfer, attracting talent and promoting the entrepreneurial spirit:
 - <u>Iberdrola Universities Programme</u>. In 2017 the Universities Programme was launched, with the aim of attracting talent, transferring knowledge and contributing to society. In the context of the programme, Iberdrola has signed agreements with the major universities of the countries in which it is present: Universidad de Salamanca, Universidad Pontificia de Comillas, Massachusetts Institute of Technology MIT, Instituto Tecnológico de Monterrey and University of Strathclyde. The programme comprises the following lines of action: Chairs, R&D projects, training of students, in-house training and young entrepreneurs. During 2017 the first initiatives were carried out with young entrepreneurs of the reference universities: MIT SANDBOX, Comillas Emprende, Emprende Salamanca, Iberdrola- SP Entrepreneurial and Energy Business Model Challenge. In all, five hackathons or boot camps were held, with 800 entrepreneurs and with the collaboration of more than 100 mentors. We also held more than 25 workshops and delivered more than 2,500 hours of mentoring.
 - <u>Accelerator Project</u>. Through this initiative, IBERDROLA expresses its faith in the in-house talent of its employees and their ability to identify the key factors that will make the company the world's biggest utility within ten years. It was led by a multi-discipline group of young employees from Spain, the UK, the US, Mexico and Brazil which over a two-year period carried out a detailed analysis of the development and trajectory of a number of successful start-ups that were the brainchildren of millennials like themselves in various thematic areas such as cultural change, smart living, customer experience and networks. Many of the resulting ideas are already being successfully implemented in the various departments of Iberdrola.

The following are some of the most notable innovative initiatives classified by broad area.

6.1. Renewable energies

In 2017, Innovation activities in Renewables focused primarily on:

- Improving operating and maintenance cost efficiency of wind farms, the outstanding example being
 the European ROMEO project, coordinated by IBERDROLA, which seeks to develop new models
 and tools for the early detection of defects based on big data techniques.
- Improving the integration of energy from renewable sources, several initiatives having been carried out in the area of energy storage.
- Innovation in offshore wind projects is essential to reduce costs and to limit risks in ongoing and future projects. During 2017 we completed the installation of the piles, the jacket foundations and the turbines of the Wikinger offshore wind farm, as well as the commissioning of the sub-station, with its innovative design featuring a six-legged pre-piled jacket.

We also continue to collaborate on the 'Best Paths' and 'PROMOTION' European projects in which HVDC (high-voltage direct current) grids are studied with a view to facilitating the connection of large volumes of offshore wind-produced electricity to the grid. Another notable project is 'BRIO', which studies the wind farm at the end of its useful life and the valorisation of its high added value components.

In Brazil we would highlight the play on solar energy in the form of the construction of a pilot CSTP (concentrating solar thermal power) system with storage in the city of Bahía. IBERDROLA is also constructing new wind and photovoltaic facilities in various Mexican states.

6.2. Clean generation technologies

During 2017, efforts in the area of generation focused on operating efficiency and flexibility, environmental protection, and the improvement of plant safety.

<u>Operating efficiency and flexibility and plant safety</u>: The PREXES project to develop a model to predict expansion in hydraulic concrete structures was completed. Work continued on the VIDAGEN project to design and develop a tool to manage the global lifespan of pressurised equipment.

In the area of nuclear generation, the prominent projects are FILTRONUC and OPD. The goal of this first project ended in 2017 is to research and develop a new containment filtered venting system for maximising filtering performance on the venting line without compromising the safety and integrity of the facilities. And the second one seeks to develop an open phase detection system for start-up transformers in nuclear generating stations to establish a solution ensuring optimal functionality as a significant element of safety and reliability.

<u>Environmental</u>: Iberdrola remains firmly committed to reducing the environmental impact of its generating plants, backing an ambitious project life entitled CO2FORMARE to find a solution to the problem of macrofouling in the cooling systems of electricity generating plants in a sustainable manner and mitigating the environmental impact both emissions into the atmosphere and the aquatic environment.

6.3. Commercial Area - New projects and services

Innovation is essential in commercial activity, in order to offer customers the products and services best suited to their needs. Thus in 2017 IBERDROLA launched the following:

- New initiatives to boost the customer experience:
 - Planes a Tu Medida (Customised Plans): new functionalities have been included in the Plan Elige 8 Horas (Choose-8-Hours-Plan). Customers can now choose the 8 hours that best match their consumption, and they can be different 8-hour periods every day of the week.
 - App de Clientes: (Customer App): Improvements in performance and redesign of the application, with launch dates of year-end 2017 on Android and early 2018 on iPhone. This version will include improvements in user experience and new functionalities.
- New Smart Home products: Consumption Monitors and Smart Lamps:

In 2017 we launched a product called <u>Riego Inteligente</u> (Smart Irrigation) which allows customers to schedule and control when they water their gardens from their smartphones or tablets. This product rounds out the range of smart home products: smart thermostats, electricity meters that break down the consumption of the main domestic appliances, and smart LED light bulbs that can be controlled from a smartphone.

As for <u>Smart Solar</u>, a distributed generation solution for self-consumption, in 2017 the following functionalities were improved: "online offer" thanks to consumption curves and location, and querying of production, possible storage and grid demand.

IBERDROLA also continues to take part in Green Mobility projects such as REMOURBAN and CIRVE. REMOURBAN is developing a public recharging network in the city of Valladolid and has designed methodology for evaluating the sustainability of urban environments, which will be installed in several cities participating in the project. The CIRVE project also began in 2016, in which Iberdrola assists with the development of rapid-recharge infrastructure corridors for electric cars, to boost electric mobility and connect Spain to France and Portugal.

6.4. Smart grids

As regards smart grids and digitisation of the grid, the following may be highlighted in Spain and in the rest of Europe:

- In <u>Europe</u>, the three-year UPGRID led by IBERDROLA DISTRIBUCIÓN came to an end. It succeeded in strengthening the operation and maintenance of low-voltage grids in anticipation of technical problems associated with the large-scale integration of distributed generation. In 2017 the European Commission financed the ASSURED project, the objective of which is to develop solutions for quick recharging of heavy electric goods vehicles. Additionally, through EDSO4SG, IBERDROLA continues to participate in the INTENSIS4EU project, which seeks a new R&D approach to the smart grid and energy storage in order to face the new integrated energy challenges in which the consumer is at the centre of the energy system.
- in <u>Spain</u>, we would highlight the GRIDSTORAGE project, in which an advanced microgrid model is being developed, with storage for distribution grids.

- In the <u>UK</u>, the Fusion and LV Engine were financed. Both of them aim to optimise low-voltage grids, which present some of the most significant opportunities and challenges in progress towards a more flexible system. This financing comes on top of that recently obtained for the innovative SPEN project, designed to manage restrictions on the high-voltage grid in the Dumfries and Galloway power stations. Work also continues on developing sustainable solutions for the deployment of the new smart grid, with the FITNESS project. Other notable projects include VISOR, which is implementing the first wide area monitoring system (WAMS) in the nationwide IT infrastructure, and Assess Late, which analyses the future impacts of distributed generation, electric vehicles and increased demand on the grid.
- In <u>Brazil</u>, two of the projects to develop domestic technology for smart networks were BID MONITOR, a backup system for decision-making concerning sales of electricity, and CIUDADE INTELIGENTE, to implement an urban reference model based on Smart Grids, should be highlighted. Moreover, for the project Micro Redes GD, the impact of distributed generation on the grid and coupling points has been assessed.
- In the <u>United States</u>, notable initiatives include those forming part of the Energy Smart Community (ESC) programme to improve management of the grid and distributed energy resources, ability to respond to demand and user experience. Also, as part of the Reforming the Energy Vision (REV) initiative, notable projects are Energy Marketplace, a platform facilitating transactions between suppliers of distributed generation and customers, and Flexible Interconnect Capacity Solution, which seeks to define less costly and faster means of connecting to distributed energy resources.
- A regards the <u>Qatar</u> Technological Centre, we would highlight the development of technological consultancy activities on smart grids and the implementation of metering systems, the launch of various R&D projects and test benches for the integration of distributed renewable energy and the management of demand.

6.5. IBERDROLA Ventures - PERSEO

IBERDROLA Ventures – PERSEO is IBERDROLA's Corporate Venture Capital programme.

The programme focuses on the technologies and business models that allow improvements in the sustainability of the energy model by means of a greater degree of electrification and decarbonisation of the economy. The most notable activities in 2017 included:

- IBERDROLA was named by the European Commission as one of the companies that works best
 with start-ups in the context of the Start-up Europe Partnership initiative. Iberdrola was the only
 Spanish energy company selected, and it also received the special Start-up Procurement Award
 for its Innovation with Suppliers programme.
- Internationally, we note the taking of an equity stake in the US company Innowatts, which focuses
 on the development of digital solutions and innovation for the energy sector by means of its
 analytical platform using artificial intelligence, which has data from more than 14 million smart
 meters.
- Within the area of social investment, we would highlight the investment in Ilumexico, dedicated to lighting and electrification in rural areas of Mexico. It is estimated that more than 250,000 people may benefit from this initiative in the next few years. It is Perseo's second investment in high-impact social projects, and forms part of IBERDROLA's 'Electricity for All' programme.

7. ACQUISITION AND DISPOSAL OF TREASURY SHARES

The Group's treasury share policy establishes the following:

Treasury share transactions are considered those transactions carried out by the Company, whether directly or through any of the Group's companies, the object of which are Company shares, as well as financial instruments or agreements of any type, traded or not in the stock market or other organised secondary markets, which grant the right to acquire from, or the underlying security of which are, Company shares.

Treasury share transactions will always have legitimate purposes, such as, among others, to provide investors with liquidity and sufficient depth in the trading of Company shares, to execute treasury share purchase programmes approved by the Board of Directors or General Shareholders' Meeting resolutions, to fulfil legitimate commitments undertaken in advance or any other acceptable purposes in accordance with applicable regulations. Under no circumstances shall the purpose of the treasury share transaction be to interfere with the free establishment of prices. In particular, any conduct referred to in article 83.ter.1 of the Securities Market Law and article 2 of the Royal Decree 1333/2005, of 11 November, implementing the Securities Market Law related to matters of market abuse.

The Group's treasury share transactions will not be carried out, under any circumstances, based on insider information.

Treasury shares will be managed providing full transparency as regards relationships with market supervisors and regulatory organisations.

Note 21 of the Consolidated financial statements presents the movements of IBERDROLA's shares in the Group companies' portfolios in the last years. Likewise, other information on transactions in 2017 and 2016 is presented in the following chart:

			Cost			
		Nominal	(thousands of			
		value	_ euros)			
	No. of	(thousands	Treasury	Average price		
Treasury Stock	shares	of euros)	stock	(euros)	Total shares	% Capital
01.01.2016	67,636,166	50,728	405,458	5.99	6,336,870,000	1.07
Additions	245,721,539	184,292	1,450,724	5.90		
Share capital reduction	(157,197,000)	(117,898)	(946,566)	6.02		
Iberdrola dividendo flexible (1)	1,504,604	1,128	-	-		
Iberdrola dividendo flexible (2)	-	_	(1,992)	_		
Disposals	(6,440,532)	(4,830)	(38,687)	6.01		
31.12.2016	151,224,777	113,420	868,937	5.75	6,362,079,000	2.38
Additions	154,508,438	115,881	1,002,731	6.49		
Share capital reduction	(219,990,000)	(164,993)	(1,280,176)	5.82		
Iberdrola dividendo flexible (1)	1,896,638	1,422	-	_		
Iberdrola dividendo flexible (2)	_	_	(9,379)	_		
Disposals	(11,929,704)	(8,947)	(74,937)	6.28		
31.12.2017	75,710,149	56,783	507,176	6.70	6,317,515,000	1.20

⁽¹⁾ Shares received

⁽²⁾ Free of charges allocation rights disposed.

Treasury shares of Scottish Power	No. of shares	Nominal value (thousands of euros)	Cost (thousands of euros) Treasury stock	Average price (euros)	Total shares	% Capital
01.01.2016	1,638,563	1,229	10,163	6.20	6,336,870,000	0.03
Additions	404,154	303	2,464	6.10		
Iberdrola dividendo flexible	56,040	42	-	_		
Disposals	(724,352)	(543)	(3,047)	4.21		
31.12.2016	1,374,405	1,031	9,580	6.97	6,362,079,000	0.02
Additions	318,172	238	2,159	6.79		
Iberdrola dividendo flexible	95,524	72	-	_		
Disposals	(631,238)	(473)	(3,322)	5.26		
31.12.2017	1,156,863	868	8,417	7.28	6,317,515,000	0.02

During 2017 and 2016, treasury shares held by the IBERDROLA Group were below the legal limit.

Finally, the conditions and time periods of the current mandate of the Board of Directors to acquire or transfer treasury shares are detailed below.

At the General Shareholders' Meeting on 28 March 2014, shareholders expressly agreed to delegate powers to the Board of Directors, with powers of substitution, pursuant to the provisions of the Spanish Corporations Law, to carry out derivative acquisition of shares in Iberdrola, S.A. under the following conditions:

- a) Acquisitions may be made directly by IBERDROLA or indirectly through their subsidiary companies. The subsidiary companies which develop regulated activities as prescribed in the electric sector and hydrocarbon laws are excluded.
- b) Acquisitions may be made by purchase transactions, swaps or any other form permitted by law.
- c) Acquisitions may be made up to the maximum legal threshold (i.e. 10% of share capital).

- d) Such acquisitions may not be made at a price higher than the market price or lower than the nominal value of the share.
- e) Authorisation was granted for a maximum period of five years since approval of the resolution.
- f) A restricted reserve shall be created in equity in the purchasing company equivalent to the value of the parent's shares under assets. This reserve must be maintained as long as the shares are not disposed of or cancelled in accordance with the Spanish Corporations Law.

Shares acquired under these powers can be transferred or cancelled or used for the compensation systems as provided for in the Spanish Corporations Law. They may also be used to develop programmes that encourage participation in the Company's share capital such as the dividend reinvestment plan, loyalty bonuses and other similar instruments.

Stock market data

		2017	2016
Stock market capitalisation (*)	Millions of euros	40,811	39,661
Earnings per share continuing operations	Euros	0.478	0.423
P.E.R. (share price at year end/profit per share)	Times	13.51	14.74
Price / Carrying amount (capitalisation on carrying amount at year end) ($^{\star\star})$	Times	1.14	1.08

^{(*) 6,317,515,000} and 6,362,079,000 shares as of 31 December 2017 and 2016, respectively.

The IBERDROLA share

Stock market performance of IBERDROLA compared to the indexes in 2017 is as follows:



^(**)Capitalisation at 31 December 2017 (40,811) / Equity of the parent company (35,509); Capitalisation at 31 December 2016 (39,636) / Equity of the parent company (36,690).

	2017	2016
Number of shares outstanding	6,317,515,000	6,362,079,000
Share price at year end	6.46	6.23
Average share price for the year	6.62	6.01
Average daily volume	20,870,406	25,843,622
Maximum volume (06/04/2017 - 16/12/2016)	122,920,322	117,034,016
Minimum volume (28/08/2017 - 16/05/2016)	4,636,525	4,444,650
Dividends paid (euros)	0.317	0.286
- Gross interim dividend (23/01/2017 - 29/01/2016) (1)	0.135	0.127
- Gross complementary dividend (07/07 and 21/07/2017 - 08/07 and 22/07/2016) (2)	0.177	0.154
Attendance premium	0.005	0.005
Dividend yield (3)	4.91%	4.59%

- (1) Purchase price of rights guaranteed by IBERDROLA.
- (2) Complementary dividend in cash (07/07/2017 and 08/07/2016 = EUR 0.03 and purchase price of rights guaranteed by IBERDROLA: 21/07/2017 =0.147 and 22/07/2016 =0.124).
- (3) Interim dividend, complementary dividend and attendance bonus for attending the General Shareholders' Meeting/share price at period end.

8. FURTHER RELEVANT INFORMATION

8.1. Environmental issues and sustainability

8.1.1. Environmental issues

IBERDROLA accepts that the environment places constraints on all human activities and is a factor of companies' competitiveness, and it is committed to promoting innovation in this field and also ecoefficiency, to gradually reducing the environmental impact of its activities, facilities, products and services, and striving to ensure that its activities are congruent with future generations' legitimate right to an appropriate environment.

The Group undertakes and promotes this commitment through its policies. IBERDROLA currently has three specific policies in order to manage environmental issues: environmental policy, anti-climate change policy and biodiversity policy, which set forth the principles through which the Company will continue to improve its environmental management.

Moreover, for the thirteenth consecutive year IBERDROLA featured on the global Dow Jones Sustainability Index, a worldwide benchmark for recognising corporate contributions to sustainable development, and also on other internationally renowned sustainability indexes. It is the only utility to have earned this distinction since the Index was created in 1999.

8.1.2. Sustainability

IBERDROLA's contribution to sustainable development takes form in certain social responsibility practices which address the needs and expectations of their stakeholders, with which the Company maintains a series of lines of communication and dialogue open through which it is able to: communicate objectives, initiatives and achievements obtained in the three areas of sustainable development (economic, environmental and social) and receive evaluations and requests from the interested parties.

Sustainability indicators	2017	2016
Contribution to GDP (Gross Margin) (*)	0.42%	0.54%
Contribution to GDP (Revenue) (*)	1.15%	1.23%
CO ₂ Emissions in the period (gr. CO ₂ /kWh): Total	187	176
CO ₂ Emissions in the period (gr. CO ₂ /kWh): Spain	108	84
CO ₂ Emissions in the period (gr. CO ₂ /kWh): SPW	237	328
CO ₂ Emissions in the period (gr. CO ₂ /kWh): Avangrid	53	58
CO ₂ Emissions in the period (gr. CO ₂ /kWh): Brazil	119	136
CO ₂ Emissions in the period (gr. CO ₂ /kWh): Mexico	362	356
Total production free of emissions (GWh)	65,406	75,674
Production in Spain free of emissions (GWh)	41,515	53,713
Production free of emissions out of total production (%)	51.8	57.2
Production in Spain free of emissions out of total production (%)	82.7	87.4
Total installed capacity free of emissions (MW)	30,232	28,326
Total installed capacity in Spain free of emissions (MW)	18,740	18,738
Total installed capacity free of emissions (MW)	65.6	65.5
Total installed capacity in Spain free of emissions (MW)	73.2	73.2
Specific SO ₂ emission Global mix (g/kWh)	0.074	0.050
Specific particles emission Global mix (g/kWh)	0.007	0.005
Specific NOx emission Global mix (g/kWh)	0.261	0.185

8.2. IBERDROLA Foundation

In 2017, the Group allocated EUR 14,566 thousand to financing the various foundations (EUR 13,515 thousand to Group foundations and EUR 1,051 thousand to associations and entities whose goals are in the interest of the general public).

The main recipient of the funding was Iberdrola Foundation, which received EUR 7,555 thousand. Information on its goals and activities is available at: www.fundacioniberdrola.org. IBERDROLA Foundation is a private, non-profit, cultural foundation, founded by the Company. Its mission is to develop initiatives which effectively contribute to improving the quality of life of the people in the regions and countries where the Group acts, especially in the areas of energy sustainability, art and culture, as well as solidarity and social initiatives. The foundation may act independently to achieve its goals and is fully functional and autonomous. Without prejudice to its collaboration with other entities, Iberdrola Foundation coordinates and executes the Group's corporate social responsibility strategy, so that it is in line with the purpose for which it was created and as assigned there to by the Board of Directors.

Iberdrola Foundation coordinates its welfare work in the United Kingdom through the Scottish Power Foundation, which was granted EUR 2,175 thousand. In the United States, this work is carried out through the Avangrid Foundation with a budget of EUR 3,306 thousand, and in Brazil through the Instituto Iberdrola Brasil, receiving EUR 479 thousand.

In 2018, the Group intends to follow a policy aimed at financing activities of interest to the general public in line with that followed in 2018 as regards amount and allocation.