IBERDROLA

ELECTRIC UTILITY

STUDENT: NUNO CAETANO

COMPANY REPORT

8 JANUARY 2015

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After the storm comes the growth

Growth outlook after debt reduction

- **We initiate coverage of *Iberdrola* with a Hold rating and Y16 target price of €6.78.** We valuation implies an upside of 5.6% relative to the current share price. The company has improved its financial position and we expect *Iberdrola* to be back to the path of growth.
- Business mix evolution: *Iberdrola* is keeping up its focus on regulated assets (Networks and Renewables) in core geographies: UK, USA, and Latin American countries. Growth investments in Spain and on the Liberalized sector (except in Mexico) have been avoided.
- Uncertainty on Generation & Supply: the sector is facing legislation instability in Spain and UK. In Spain the doubt about future Government composition and its relevance about energy policies to be followed; in UK the possibility to shut down all coal-fired plants by 2025. In both liberalized markets the margins are diminishing.
- *Avangrid*: the merger process with *UIL* is finished and the new company is now listed on US stock market. *Iberdrola* strengthens its position on Networks and Renewables in USA.
- COP 21: the outcome from the conference step up the world commitment about environmental concerns. On the energy sector, more efforts will be allocate on the increase of low- and non-gas emissions energy sources.

Company description

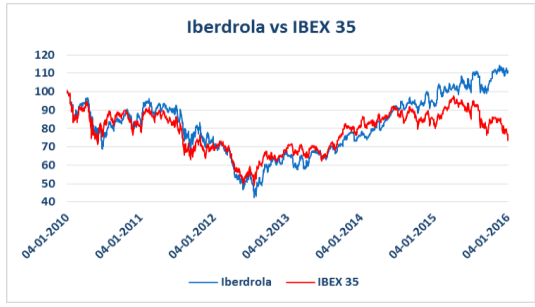
Iberdrola is the largest Spanish-based utility company, with activities spread over several European and American countries. Its activities comprise the whole energy sector, from electricity production to energy distribution to end-users (electricity and gas). Currently is the leading wind energy producer worldwide.

Recommendation:	**HOLD**
Price Target FY16:	**6.78 €**
Price (as of 8-Jan-16)	**6.44 €**

Bloomberg: IBE SM

52-week range (€)	5.25-6.71
Market Cap (€m)	40,701.1
Outstanding Shares (m)	6,336.9
EV (€mn)	66,613.8
YTD change/%	-0.126 / -1.92%

Source: Bloomberg



Source: Bloomberg

(Values in € millions)	2014	2015F	2016F
Revenues	30,032	31,690	32,299
EBITDA	6,965	7,198	7,450
Net Profit	2,327	2,111	2,162
EPS	0.364	0.330	0.341
P/E	14.44	18.62	19.88
DPS	0.275	0.248	0.256
Div Yield	5.23%	4.03%	3.77%
Net Debt (€mn)	24,909	24,759	24,118
ND/EBITDA	3.6	3.4	3.2
ROE (%)	6.54%	5.55%	5.60%

Source: *Iberdrola*'s Consolidated FS; Analyst's forecasts

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Executive summary

Iberdrola is the world leader in wind energy production

Iberdrola is the largest Spanish utility company and also one of the biggest in the world. The company is quoted on Spanish index IBEX 35 and has a market capitalization of €40.94 billion. It operates in several countries in Europe and America in its three core businesses: Networks, Generation and Supply, and Renewable Energy. Currently it is the world largest producer of wind energy, with more than 14.6 GWh of installed capacity.

We expect an improvement in the already attractive business mix

The company presents a strong business mix, with a clear focus on regulated activities: Networks and Renewables. This two sectors together represented in 2014 70% of EBITDA result. We expect this share to increase over the next years as the investment plan allocates a larger portion to those segments.

Liberalized sector is facing adversities and we estimate its share importance to decrease

On the other hand the Liberalized business unit (Generation and Supply) have been struggling to maintain profit margins. In the domestic market the uncertainty about future Government composition helps to create more concerns about the future of the sector, with some parties proposing revolutionary policies that would have a strong impact on *Iberdrola* business structure. In UK there is also some doubts about what energy politics will be adopted. If the plan to close coal-fired plants by 2025 is implemented, we can expect a deep changes in the business unit since they represent the major share of installed capacity (48%). The outlook for the sector is not positive and we estimate its importance within *Iberdrola* group to decrease.

Merger with UIL reinforced position in Networks and Renewables sectors

The recently merger of *Iberdrola USA* is a proof that the company is back to the growth mode. The newly created company *Avangrid* increased the presence of the company in USA in the Networks and Renewables sector. We expect a positive impact on the financial statements already in 2016. It is seen has a strategic merger and reaffirms the strategy of *Iberdrola* for the future.

Another issue worth to analyze is the outcomes from COP21. It was the demonstration of the commitment of World Governments in the pursuit of a cleaner future. The support to renewable sources of energy was strengthened, which is a positive factor for *Iberdrola*.

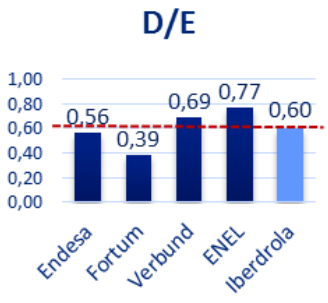
We start the coverage of Iberdrola with Hold recommendation

We start the coverage of *Iberdrola* with Hold recommendation. The outlook for *Iberdrola* is positive and we value the share price with an upside of 5.6%. We see some positive signs on EPS and DPS froth in future years and we predict the reinforcement of the financial position occurred over the last years to turn into a catalyst for future growth investments.

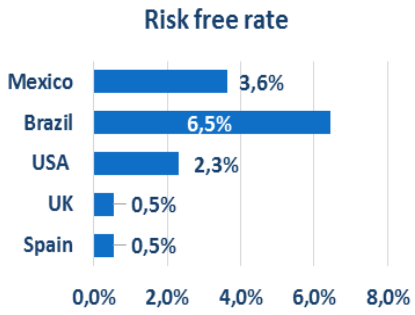
Valuation

Currencies	07-jan
EUR/USD	1,09
EUR/GBP	0,75
EUR/R$	4,42
EUR/MXN	19,46

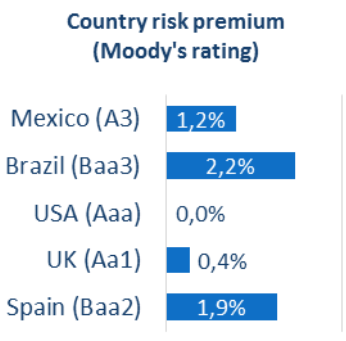
Table I: current currencies



Graphic 1: D/E target



Graphic 2: risk free rate by country



Graphic 3: country risk premium

We value *Iberdrola* recurring to a sum-of-the-parts methodology. Each of the three core businesses is valuated independently, in order to value in more detail the specifications of each sector, and using a Discounted Cash Flows (DCF) methodology. For the headings "Other businesses" and "Corporate & Adjustments" a simple multiples valuation was used, given their lower relevance in company's consolidated accounts.

The DCF approach forecasts final-year results for 7 years (2015-2021), with every value firstly calculated in local currencies. To aggregate the sectors, financial results are "exchanged" to euros to compute the discounted cash flows and firm's valuation. Each one of the core business units is under its respective WACC rate, to reflect implicit business risk within the sector and more accurately discount the forecasted cash flows.

To compute WACC we used the traditional approach and estimate values for three determinants: target debt-to-equity ratio, cost of equity, and cost of debt.

For the target debt-to-equity ratio we made estimations under the assumption of a common target ratio to all business sectors and locations. It is due to the fact that debt is issued at a central level on the company and information was gathered from consolidated financial reports of the company. The established value of 0.6 is the average of D/E ratio from comparable companies. To choose them we selected companies that integrate the several businesses within energy sector, since they are supposed to better reflect *Iberdrola*'s targets and ratios, and excluded outliers (EDP: 1.45). The ones we assumed as comparable are the same as for the liberalized activities comparison (Endesa, Verbund, Fortum, ENEL).

The cost of equity was computed recurring to the CAPM model. Firstly, for the risk free rate, we used the 10-year government bond from Germany as benchmark for Spain and UK. The value settled is 0.544%. For USA we gathered the price of its 10-year Government bond (2.313%). Than the value was adjusted for Latin America countries, according to inflation differential (data from International Monetary Fund). The estimated risk free rate is 6.5% for Brazil (inflation differential of 4.1%) and 3.6% for Mexico (1.3%). For the country risk premium we used Prof. Damodaran projections, based on Moody's ratings for each one of the countries. It is important to note that both risk free rate and country risk premium are a weighted average (on €EBIT values of 2014) of country's share within each business, getting separate components for each sector. For the value of market risk premium we assumed 5.16%. It is the established value for January 2016, calculated by Prof. Damodaran.

In what relates to the beta, we gathered from Bloomberg the adjusted unlevered betas of comparable companies, from relevant business locations within each segment. The beta values use as benchmark the STOXX Europe 600, since it better represents the market as a whole. We assumed each segment unlevered beta for *Iberdrola* to be equal to the average of comparable's unlevered beta. This way we try to capture the maximum from market information to get a more

	β_U	β_L
Networks	0,72	1,05
Gen&Sup	0,88	1,27
Renewables	0,81	1,15
Corporate	0,78	1,13

Table II: beta values by business

accurate value. Each segment beta is present on the table on the left. The estimated cost of equity is 7.93%, 9.4%, and 8.38% for the Regulated, Liberalized, and Renewables activities respectively. All the values (including comparables) are presented in the appendix (Table 1).

The cost of debt takes into account three elements: risk free rate, company's premium and tax rates. The risk free rate is the same that we previously computed for cost of equity. For the premium on *Iberdrola* we used the same methodology: check its Moody's rating (Baa1) and the corresponding implicit premium (1.6%). The tax rate is used to calculate the tax shield from which the company is benefiting. Corporate taxes paid are different across the countries, so we made separated calculations and assumed the taxes paid in each segment to be equal to the weighted average of the corporate tax rate in the countries applicable for each sector. We got 28.2%, 27.7%, and 32.4% for Regulated, Liberalized, and Renewables business units, respectively, for the average tax rate by sector. The estimated cost of debt is 2.18%, 2.0%, and 2.15% respectively.

To attain the parameters at a corporate level, we computed a weighted average of each one based on the relative weight of each segment on the total EBIT of *Iberdrola* in 2014. We present the values on the table above.

Sector	D/E	Tax rate	β_U	r_e	r_d	WACC
Regulated	0,62	28,23%	0,72	7,84%	2,12%	5,64%
Liberalized	0,62	27,72%	0,88	9,30%	1,93%	6,47%
Renewables	0,62	32,43%	0,81	8,32%	2,11%	5,94%
Corporate	**0,62**	**28,57%**	**0,78**	**8,34%**	**2,06%**	**5,93%**

Table III: WACC components by business and corporate and corporate

The main sources of risk for the model arises from uncertainty on some assumptions made, namely for regulation (taxes, political changes, allowed remunerations, incentives on renewables), market (demand, energy and commodity prices, crisis, exchange rates), and weather (load factors).

Company overview

Iberdrola represents 8.6% of IBEX35

Iberdrola is a Spanish multinational electric utility company based in Bilbao, Basque Country. It was founded in 1992 as a result of a merger between Hidroeléctrica Española and Iberduero. The company went public on its shares are traded in IBEX 35. It is the largest of its sector by market capitalization and one of the main companies of the Spanish index. Currently its market value is €40.94 billion.

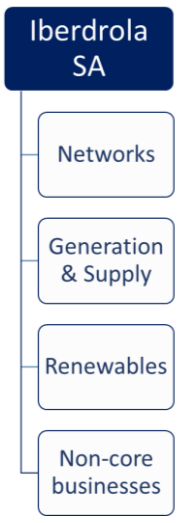
Iberdrola is present in three continents and has subholding companies in its five main geographical areas: *Iberdrola* España, Scottish Power Ltd. in UK, *Iberdrola* USA Inc., *Iberdrola* Brasil S.A., and *Iberdrola* México, S.A. de C.V.

Iberdola's main operations are spread over three main sectors: Networks, Wholesale and Retail, and Renewable Energy. They embrace production of electricity from renewable and conventional sources, purchase/sale of electricity and gas on wholesale markets, transmission and distribution of electricity, and supply of electricity, gas, and related energy services.

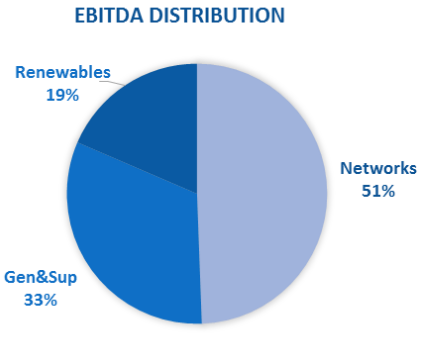
Iberdrola is the world leader in wind energy production.

The Renewables has seen the major investments throughout the last years and its importance increases year by year on company's structure. *Iberdrola* has become the world leader in wind energy, in terms of installed capacity, with more than 14.6 GWh. The major competitors in the wind business are China Longyuan Power Group with 13.5 GWh, Nextera with 11.3 GWh, and Berkshire Hathaway Energy with 6.2 GWh (in operation and under construction).

Business description



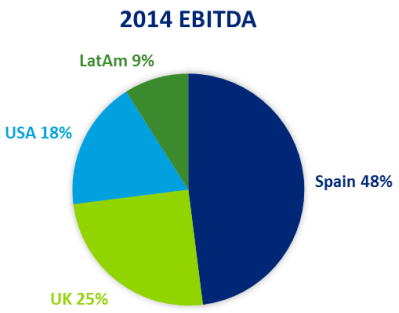
The business of *Iberdrola* integrates some core areas of the energy industry, from production of electricity to energy supply to end-users. The structure is divided in three main areas: Regulated, Liberalised, and Renewables. The Regulated area includes the Networks business, in control of the transmission and distribution of energy (electricity and gas) and its operations are present in Spain, UK, USA, and Brazil; the Liberalised area covers production of electricity under the ordinary regime and supply of energy in the liberalised market and to last resort costumers in the Iberian Peninsula, UK, Mexico, and USA; the Renewables sector comprises the production of energy by renewable sources (special regime) and its major presence is noted in Spain, UK, and USA. Beside these three core-sectors, *Iberdrola* has investments in other non-energy businesses, like real estate (*Iberdrola Inmobiliária, S.A.U.*), engineering and construction (*Iberdrola Ingeniería y Construcción, S.A.U.*). However their impact on company's accounts is minimum.



Graphic 4: 2014 EBITDA distribution by business

There is a clear focus on the Regulated activities. Networks represent almost half of *Iberdrola*'s revenues (51% in 2014 EBITDA). Renewables have also been systematically increasing its share (19% in 2014). The environmental commitment by governments have been a major driver of company's focus, making Generation and Supply business unit much less attractive than it was before: production of energy have to follow strict rules in terms of sources of energy, CO2 rights are becoming more expensive year-by-year, the liberalization of energy distribution market in some of the relevant locations makes profit margins to decrease, among other factors. The sector still represents about a third of EBITDA (33%) but we expect it to keep following the downward path over the next few years.

In terms of geographic distribution of the businesses, we can also note a clear trend. Major investments are being placed on markets with larger growth potential, like Mexico, Brazil, or USA. The divestment on the Spanish market is a result of its instability and less profitability. The political environment makes unpredictable what future policies will be followed and it's a market that suffered a lot during the economic crisis. Due to that factor, some structural adjustments on country's organization have made tougher for *Iberdrola* to attain the same profit levels from the past. Currently it still represents 48% of the company outcome (2014 EBITDA levels) but the strategy is to increase more the exposure to foreign countries. The other European country



Graphic 5: 2014 EBITDA distribution by geographic area

hosting activities is United Kingdom. In 2007 *Iberdrola* entered in the British market through the acquisition of *Scottish Power* for £11.6 billion. The current country's outlook on the electric sector is also unstable and the company is investing more on Networks. There are a few concerns about the future of electricity production in the region and if some proposed policies are approved, like the shutdown of coal-fired plants, a deep revolution within the company's current electricity production structure would be necessary to adapt to the new legislation environment. Currently it is responsible for about 25% of EBITDA. Activities in USA represented 18% in 2014 and, accordingly to the expansion plan of the company, we can expect a future increase on this share. The market for energy distributors presents worthy profits and the recent merger with *UIL Holdings* was another step forward for the definition of USA as a major location for the business within *Iberdrola*. Finally Latin American countries are the ones presenting a better outlook in terms of economic growth and they have received large investments on the last few years. Mexico and Brazil together represent 10% of the company's EBITDA and they are expected to be a very relevant driver for future outcome growth strategy of *Iberdrola*.

Strategic Outlook

Focus on regulated activities, international diversification, and environmental commitment.

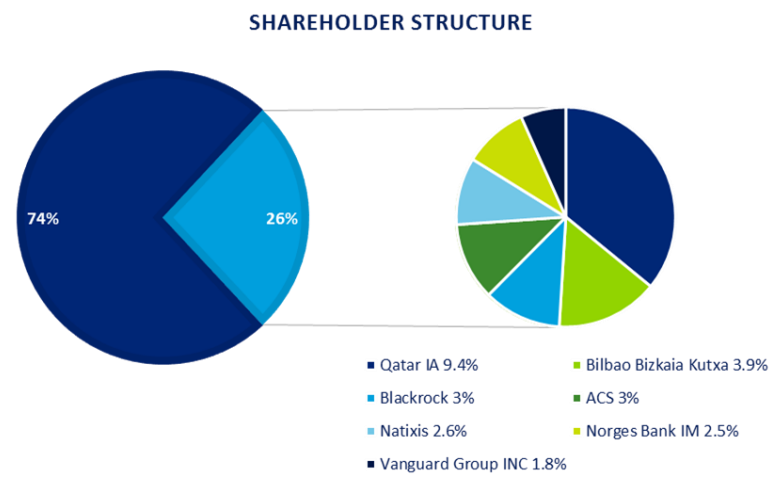
Iberdrola is focusing its growth on the Regulated and Renewables business units, which already represent about 75% of total EBITDA. These areas offer much more steady and predictable outcomes to stabilize the company's accounts and, consequently, attract more investors. The purpose is to reduce exposure to market variations and, instead, face the regulatory risks, predicted to be much less volatile. On the other hand Liberalised sector has to deal with market risk and, as *Iberdrola*'s operations are dispersed over very distinct geographies, it carries much more uncertainty about future results.

Another pillar of *Iberdrola*'s strategy is international diversification of operations. Approximately 55% of earnings are generated outside Spain and this share should keep increasing. The Spanish market does not offer the same growth opportunities of some emerging markets, like Latin America ones, and this relocation of geographic focus is fundamental to keep the firm's strategy of increasing profits in upcoming years.

Iberdrola has a strong environmental commitment. It has the determination of increase its share of emission-free electricity generated even more than it does today. It brings several potential benefits for the company, like improvement of image or stability against increase in CO2 rights price.

Shareholder structure

The company presents a shareholder structure very dispersed and there are no investors having large stakes of *Iberdrola*'s shares. According to 2014 Consolidated Financial Statement Report, only two companies are considered to be significant shareholders: *Qatar Investment Authority* with 9.524% of the total voting rights and *Kutxabank S.A*. owning 4.006%. In addition, the other companies that have indirect voting rights in excess of 3% of share capital are *ACS, Actividades de Construcción y Servicios*, S.A. (3.965%) and *Blackrock, Inc*. (3.023%).



Graphic 6: Shareholder structure

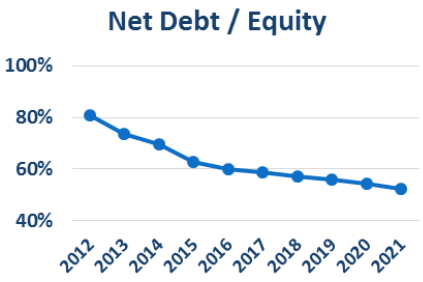
This structure is expected to remain similar in the upcoming future, with only small adjustments on the stakes coming mainly from the dividend policy followed by the company (script dividend), and *UIL Holdings Corporation* merger in USA.

Debt

Iberdrola largely increased debt due to the internalization program presented in 2001, when the debt was around €10 billion. During the following ten years, the acquisition of subsidiaries in UK, USA, and Brazil made this number to triple. The main operations are presented on the table on the left. Throughout the last years *Iberdrola* has been trying to diminish its debt level, as part of company's debt reduction program. As it was stated on *Iberdrola*'s *Strategic Outlook for 2014-2016*, by the end of 2014 the target was to reach €25 billion, a result that company narrowly failed to achieve (net debt in 2014 was €25,619 million). The target for 2015 and 2016 was net debt to remain stable, what we estimate would be achieved.

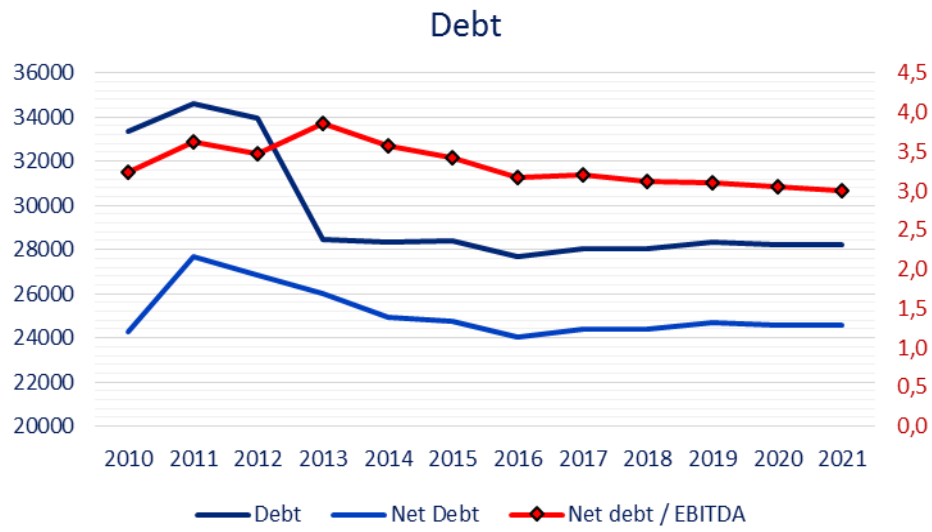
Year	Company	Value (€b)
2007	Scottish Power	17.1
2008	Energy East	6.4
2011	Elektro	1.6
2015	UIL	3

Table IV: main acquisitions



Graphic 7: Net Debt / Equity forecasts

Besides the total volume of debt, it is important to analyse other metrics. On the third trimester of the current year, debt was denominated mainly in euros (59.5%), showing a relevant increase compared to the beginning of the year (55.1%). As a consequence, other currencies have seen their weights reduced: British pounds from 23.4% to 21.6%; US dollars from 20.3% to 17.7%; Brazilian real and other currencies remain at 1.2%. Euro depreciation against the other main currencies had a negative impact and it is also thanks to it that net debt value had such an increase. Despite this, present debt structure works as a hedge against FOREX fluctuations since debt and EBITDA vary on the same direction, lowering influence on Net Debt/EBITDA ratio. In terms of exposure to floating or fixed rates, the company have also been readjusting its strategy in accordance to macroeconomic indicators. Last semester the percentage of debt exposed to fixed rate was 41.4%, what puts it within the 40-55% range forecasted by the company. Rates are currently at the lowest levels so a higher exposition to fixed rates would protect *Iberdrola* when the expected upward movement on interest rates start. The liquidity position is strong, as the €8,100 million allow the company to cover more than 27 months of its financing needs. The leverage ratio is 41.1%.



Graphic 8: Total Debt, Net Debt, and Net Debt / EBITDA

The management proposed a target ND/EBITDA of 3.5 for 2016 what we estimate to be achieved (3.4). From there on we predict the ratio to evolve and reach 3.0 by 2021. The reduction of debt level also positively impacts the ND/equity ratio. It advances from 63% in 2015 to 56% in 2021, reflecting the improvement on *Iberdrola*'s capital structure.

Agency	Long-term	Perspective
S&P	BBB	Positive
Moody's	Baa1	Stable
Fitch	BBB+	Stable

Table V: Iberdrola's rating

Iberdrola have been consistently improving its financing position. Although it is not reflected yet on ratings conceded by the major rating agencies, outlooks given are more promising and we expect upgrades are expected in upcoming future.

Iberdrola USA and *UIL Holdings Corporation* merger

Iberdrola valuated UIL shares at $52.75, representing 24.6% premium over closing price.

The recently completed merger with *UIL* totally fits the company's strategy: business mix, geographical diversification, and operating efficiency. In terms of financial management, the merger was proposed to happen with no capital increase nor change in financial structure, while it is expected to have a positive impact on EPS and cash flow per share. The new merged company is owned 81.5% by *Iberdrola* and the remaining by the former *UIL* shareholders (also receive a cash payment of $597 million), creating one of the largest US utilities company.

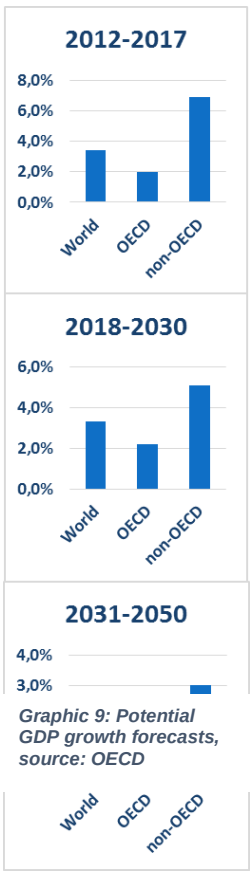
The approval of the merger passed the last stage on last December 9th and the new company, *Avangrid*, joined NYSE a few days later. It became one of the largest utilities company listed on the USA shares market. It manages about $30 billion of assets in wind energy, utilities, and natural gas storage.

The merger will impact the financial statements on the end of 2015. The assets, equity, and liabilities components were added to *Iberdrola*'s accounts based on the values presented on 2014 annual report of *UIL Holdings*. The impact on cash-flows is assumed to be relevant only in 2016, so we increased RAB in USA Regulated activities in the beginning of this year. Under our estimations, the merger would have an impact at EBITDA level of $228 million this year.

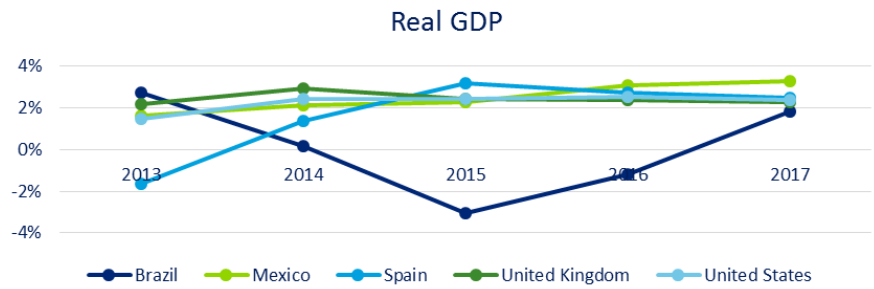
Macroeconomic environment

Global economic growth in 2015 is set to recover to levels similar the ones registered in 2013, overtaking the slowdown from the end of 2014 and beginning of current year. For 2015, world expected real GDP growth rate is 3.1%, 20 bps below last year's value. The slowdown in non-OECD economies (5.2% in 2012 to an expected value of 4.2% in 2015) is compensated by acceleration in OECD countries rates (1.3% and 2.5%, respectively). It is important to note Euro area figures, where *Iberdrola* operates relevant part of its businesses, turned on from negative results in 2012 and 2013 and is expected to keep this climb on its parameters. For 2016, OECD forecasts world economy to grow 3.8% (2.5% and 4.9% to OECD and non-OECD countries, respectively).

Relative to the most pertinent countries for *Iberdrola*, the outlook is also positive. Spain 2014 recovery (-1.2% in 2013 to 1.4%) is expected to continue and numbers will double for the current and the next year; United Kingdom and USA GDP growth rates are forecasted to remain above 2% for 2016; in Latin America countries the outlook is more disappointing as economy is expected to back off 0.1% this year and to grow 1% next year (Brazil: -0.8% and 1.1%; Mexico: 2.9% and 3.5%).



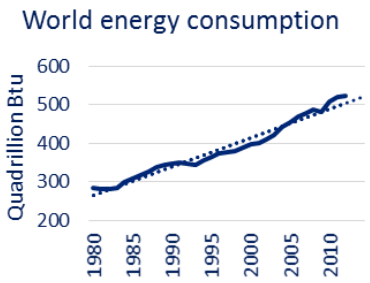
Graphic 9: Potential GDP growth forecasts, source: OECD



Graphic 10: Real GDP growth forecast, source OECD

Energy market

The energy market have been constantly changing its profile. Several reasons to explain such alterations can be pointed out, like the quantity of energy required as the world economy evolves, the sources of energy available and their efficiencies, or the development of new technologies that switch the preferences of governments and consumers.



Graphic 11: historical world energy consumption, source: EIA

One of the main concerns nowadays is the footprint left by energy production on our planet. Several studies from the last decades demonstrate how much we are damaging Earth to satisfy the frenetic increase in energy demand. The conventional technologies were no longer viable and solutions would have to be found urgently. The investments made on what we call “renewable energy” totally changed the energy market globally.

Consumption of energy worldwide was around 283,000 quadrillion Btu in 1980. Thirty years later, this value had increased by almost 40% and it amounted to 524,076 quadrillion Btu in 2012. As the consumption increased, production had to follow the same path. Both indexes were mainly driven by the developments of economies in non-OECD countries, where the demand for energy increased 178% since 1980 (to 2012) and 131% for supply. The peak of growth was registered on the first decade of this millennium. OECD countries have also increased their statistics during the same period but the rates were not so impressive – 31% increase both for consumption and production. It’s important to note that only in 2008 total consumption in OECD countries was surpassed by consumption in the other countries, representing nowadays more than 55% of total demand.

	OECD	Non OECD
1980	63%	37%
1990	57%	43%
2000	59%	41%
2010	47%	53%

Table VI: share consumption by OECD and non-OECD countries

When analysing the data on installed capacity, the evolution in the energy sector is even more noteworthy. Since 2000 installed capacity worldwide augmented more than 60%. The profile by type of production technology has evolved also and we note a clear lower relevance of the conventional pollutant energy sources, like coal or oil.

For the future, energy market is expected to keep the upward path. According to a study by BP, by 2030 total energy production will have increased by 33%, with special relevance for the renewables business (+287%).

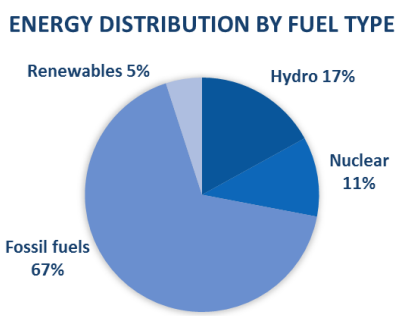
On the relevant countries for *Iberdrola*, one can state divergent tracks. Spain has partially recovered from the economic slump but energy consumption is expected to decrease 6% by 2020 (compared to 2012) as industries become more efficient and consumers try to reduce their energy

Table VII: average annual growth rate by country

Country	2015-2021
Brazil	3.1%
Mexico	2.8%
Spain	-0.8%
UK	-1.1%
USA	0.3%

bills; in UK energy demand should fall 11% during the next 10 years and then retrieve to a 3% fall by 2035 compared to todays' levels[1], as a consequence of the growing concern about environmental issues and increasing efficiency; for the US market the consumption projections indicate a 0.3% annual growth till 2040[2], matching the forecasted growth of local economy but also disclosing lower environmental commitment when compared to European countries; Mexico demand for energy is expected to grow about 70% in the period 2010-2035 and Brazil should achieve a growth level of 72% in consumption between 2012 and 2035[3], revealing the necessity that emerging countries have in order to meet their economy expansion plans.

The energy mix has a role of similar importance to the quantities consumed. Its evolution and accommodation to the new trends is determinant for the new energy market. It is highly influenced by legislations and future policies have been trying to be decided at a global level, as a way to guarantee that every country is heading in the same direction: more efficient and environmental friendly energy production. However we can still note a deep gap between economies in different levels of development.



Graphic 12: energy distribution by fuel type in 2012, source: EIA

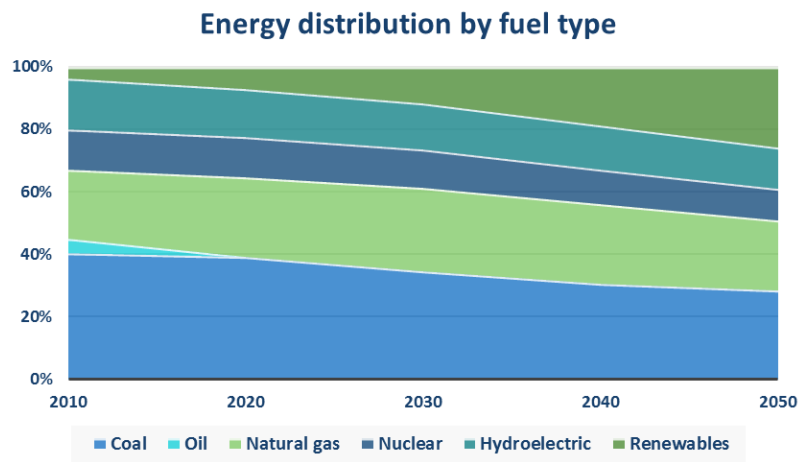
Globally, in 2012, fossil fuels were the source of 67% of total electricity output. Other less polluting sources had much lower shares: hydroelectric (17%), nuclear (11%), and non-hydroelectric renewables (5%)[4]. However, this scenario is changing and effects are not more notorious because this change has been happening mainly in developed countries. These nations have the resources and desire to move towards more effective and cleaner fuels, like hydro or wind energy.

Nowadays less polluting sources of energy have received the support from governments and other institutions and, adding to the increasing environmental awareness, those fuels have been gaining market share. Subsidies and tax exemptions allow alternative fuels to overtake the higher investments required and change the production mix in numerous countries. Without such incentives the amounts invested in different sources of energy would be much lower.

The recent COP21, a conference promoted by United Nations, is a step forward in the adoption of sustainable measures with the aim of limit the temperature rise to 2ºC. The historic document was signed by 195 nations, guarantying for the first time that every nation is dealing with the global problem that climate change is. It reinforces the path that some countries were already following and makes sure less environmental friendly countries are guided to the same direction. The guidance that almost 80% of the energy production must be placed on renewables or the promise to financially help emerging countries to deliver the proposed reforms are some of the measures to ensure the global goal will be met.

[1] Source: Department of Energy & Climate Change, "Updated energy and emissions projections 2015", revised edition 18th November, 2015 URN 14D/198. Accessed in January 8, 2016
[2] Source: Energy Information Administration (EIA), "Annual Energy Outlook 2015 with Projections to 2040", U.S. Department of Energy, published in 2015. Accessed on January 8, 2016
[3] Source: BP
[4] Source: EIA

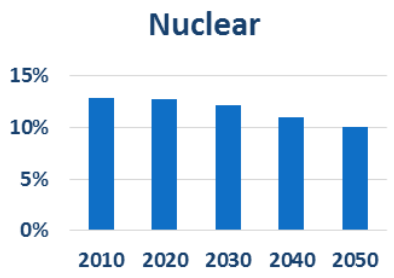
As a result from all these political changes we can expect a deep revolution in the energy mix for the next years. The energy produced from renewable sources is expected to have a substantial increase, as well as other low gas emission fuels, like natural gas. In the graphic above we express that idea using the data estimated by *World Energy Council*.



Graphic 13: energy distribution by fuel type in 2012, source: World Energy Council

Fuels and power prices

Besides the political issues discussed before, prices of fuels are another reason for the shift in production mix. Alternative fuels, as hydro, nuclear, wind, or solar, don't carry significative variable costs (except hydro when pumping is necessary), however they have large fixed costs associated. On the other hand, production of energy using fossil fuels is characterized by a large share of variable costs.



Graphic 14: nuclear share of energy production, source: World Energy Council

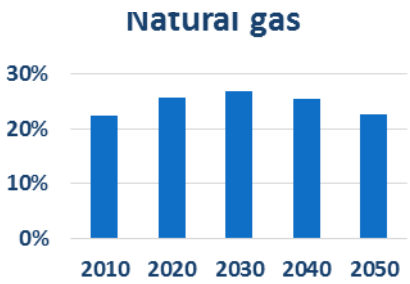
Production of energy recurring to nuclear fuel is surrounded by a fierce public debate. Nuclear energy has undoubtdly one of the lowest environmental impacts in terms of gas emissions. What most scares people are accidents like Chernobyl or Fukushima and their damage to the communities. There is not a clear trent that can be observed: some countries are preserving their postitions and investing in more technology (USA), while others are shutting down centrals and replacing them for other technologies. According to World Energy Council[5], nuclear energy will increase production but the share decrease 1% on average for each period of 10 years till 2050, demostrating the lower increase in production when compared to other sources. In the relevant European markets we note the same mix tendency: UK is betting on nuclear energy as solution to reduce emissions; Spain plans are uncertain but we estimate share of nuclear production to decrease after 2020. The Spanish elections on December have an extremely importance for *Iberdrola*. Depending from which party win the elections, the nuclear policy can follow two distinct ways: the current government (PP) is in favour of ther lifespan extension by 10 years; on the other hand, other parties are against nuclear energy and intent to close centrals at the end of their

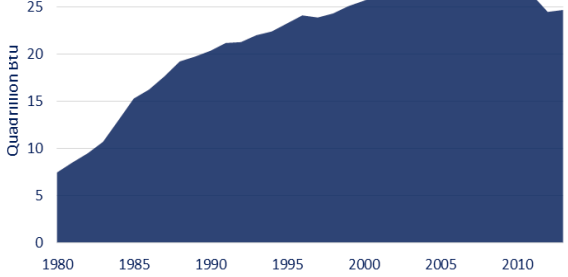
[5] Source: World Energy Council, World Energy Scenarios: Composing energy futures to 2050 published in 2013. Accessed on January 8, 2016

usefull life or to shutdown immediatelly; it is more likely that PP and PSOE reach an agreement to find a governative solution (however negotiations are pretty tough), what we estimate to not substatially impact current energy policies. In 2014 around 51% of *Iberdrola*'s electricity output in Spain came from nuclear plants so we reiterate the importance of political negotitation for company's management to define future path in the domestic business.

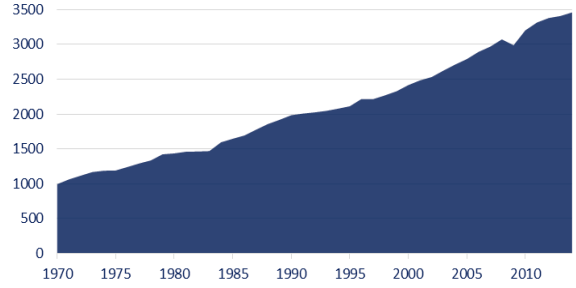
Natural gas is the fuel for CCGT plants. Prices of LNG are suffering (a lot) the effects of oversupply. *National Balancing Point* (NBP) is the gas reference for the British market. From Bloomberg data we can see the price is at 2010 levels, after an increase till 2013 and consequent fall. For the current year the forward price is up again, to 51.9 GBp/t. We assumed a 2% increase after 2016. It is expected to hit hard utilities market on UK since gas price is the key power price driver. In Spain the marginal price of gas is linked to oil (*Brent*), what we expect to invert the current downward path in 2017 and reach $61.9 in 2019 and increase by 5% annually afterwards. Currently the source setting the marginal price most of the time is natural gas. It is expected CCGTs will increase the time they set energy prices due to higher competitiveness against coal.

Graphic 15: natural gas share of energy production, source: World Energy Council



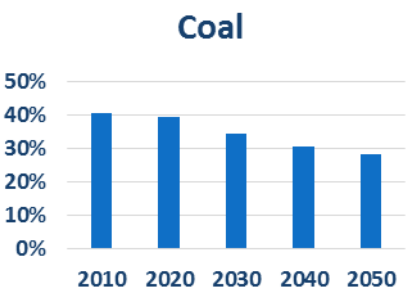


Graphic 16: historical nuclear electricity generation, source: EIA



Graphic 17: historical natural gas electricity generation, source: BP

Coal has associated large emissions of gases and its share in fuels market should decrease. It doesn't mean the quantities decrease, rather the total amounts expected to grow almost 7% till 2040. This increase is driven by a higher demand in developing countries, while most developed nations look to reduce coal use. According to the *World Bank*, the price of the commodity will fall next year to $46.5 and afterwards grow at a steady rate of around 2% per year[6], parallel to the price evolution gathered Bloomberg prices on futures, used in forecasting model.



Graphic 18: coal share of energy production, source: World Energy Council

A very relevant index on the energy sector is the CO2 rights price, that works like a tax on pollutible fuels. In Europe, the *EU Emissions Trading System* (EU ETS) trades on the *European Union Allowances*. The growing concerns about environment changed energy legislation across the world in order to achieve established targets in terms of emissions. The price for CO2 licenses is expected to keep growing through the next years and according to a *Synapse* report, it could

[6] Source: World Bank

reach $35/ton in 2030[7]. On the short-run we expect the price to rise from 6.2€/t in 2014 to 8.5€/t in 2016. Afterwards the increase is predictable to be around 2% per year[8]. However it can change depending on the strategies and targets resulting from the COP21, a climate conference from where it's expected the participants to agree on new environmental goals. The constant rise in prices has the intent to discourage energy generation from polluent sources, making them less competitive in comparision to renewables and low-gas emission sources.

Fuels	2014	2015	2016	2017	2018	2019	2020	2021
API2 coal $	75.6	57.9	46.1	40.5	42.4	42.4	42.4	42.4
Brent $	98.9	55.8	53.8	61.4	68.2	68.8	68.8	68.8
NBP £	17.1	14.6	11.6	11.8	12.1	12.3	12.6	12.8
CO2 (€/t)	6.2	7.5	7.8	7.9	8.0	8.4	8.8	9.3

Table VIII: forecasts for commodities' prices

Power prices are settled by the most expensive technology/plant satisfying demand. On the merit order, special regime has priority over ordinary regime. It means production by renewable sources will first satisfy demand and only then ordinary regime producers bid for the remaining demand.

The Iberian electricity market is quoted in Bloomberg as OMIP. In Spain there is a mix on the fuel source setting the price: coal and natural gas. Natural gas is comparatively more expensive (the price is indexed to Brent with 6-month delay), so it is the price-marker when the demand is higher. We predict a decrease in the electricity price from 49 €/MWh in 2014 to 44 €/MWh in 2021, contributing to the reduction of profits in the business.

The British market exhibits a different profile: gas-fired power stations are the marginal producer and price is majorily influenced by NBP. We forecast power prices to have a decrease, passing from 42 £/MWh in 2014 to 35 £/MWh in 2021. An increase in carbon tax would avoid marginal cost of gas to decrease that much and, consequently, reduce the previsions on power price variation. The british electricity market is quoted as N2EX.

Index	2014	2015	2016	2017	2018	2019	2020	2021
OMIP €	48.9	50.1	46.7	43.9	43.9	43.9	43.9	43.9
N2EX £	42.1	40.4	37.1	34.9	34.9	34.9	34.9	34.9

Table IX: forecasts for electricity prices

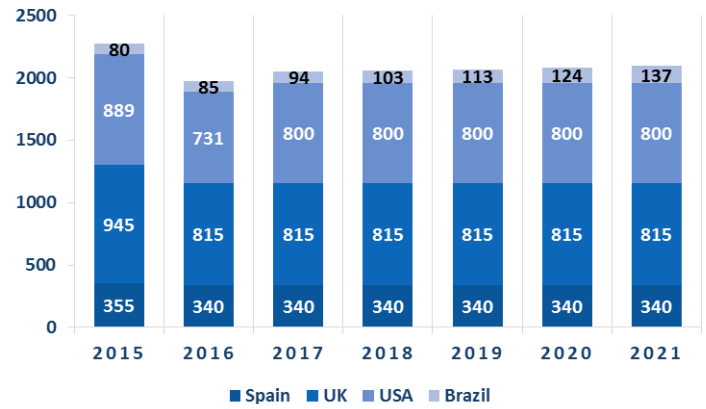
Networks business

Networks' business is where transmission and distribution regulated activities are bundled. It represents half of *Iberdrola*'s EBITDA and has been the focus for the company once it provides more predictable results, one fundamental pillar of management's strategy. The activities are spread over four main locations: Spain, UK, USA, and Brazil. Projected investments reveal the focus of the company in UK and USA markets. From more than €13,500 million we predict to be

[7] Source: Synapse Energy Economics, Inc., "Carbon Dioxide Price Forecast", published in March 3, 2015, Accessed on January 8, 2016

[8] Source: Bloomberg

invested till 2021, these two countries together receive around 35% and 40% of the total investment each, respectively. Also Brazil is expected to expand its operations, even though at a slower pace.



Graphic 19: forecasts for CAPEX on Networks by country

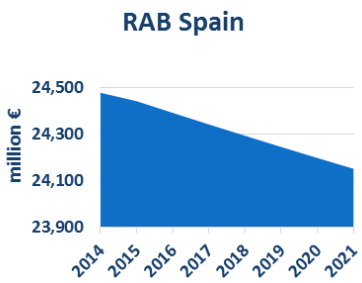
The allowed returns are defined by the regulators of each country, based on some specific criteria. Then the value is multiplied by the rotate asset base (RAB) in order to get allowed EBIT values.

	Average pre-tax allowed returns
Spain	6.5%
UK	9.2%
USA	10.3%
Brazil	7.5%

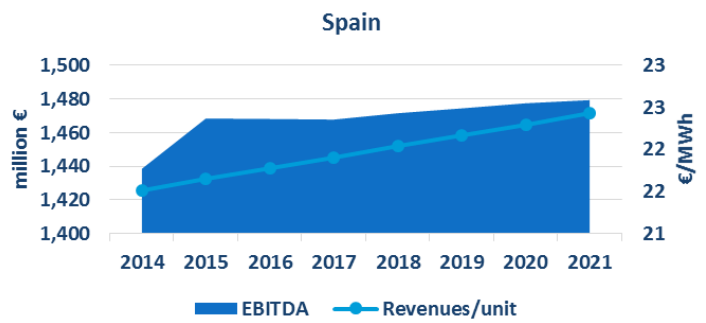
Table X: average pre-tax allowed returns by country

In Spain the company manages 10.9 million supply points and 559 km of lines of the three levels of voltage (low, medium, and high). The domestic market for transmission and distribution has to follow RD 9/2013 regulation, settled by *Comisión Nacional De Energía*. It establishes remuneration for distributors based on 3 items: investments, operational costs, and replacement capital expenditures. Investments are remunerated at the yield of Spanish 10-year government bonds plus a 200 bps spread (currently 6.5% nominal pre-tax return) and operational costs calculations use as benchmark an efficient operator. Each regulatory period lasts for 4 years and it's updated every year, according to changes on price indexes and amounts invested. The current period started in July 2013 and the next revision should not change significantly the remuneration scheme.

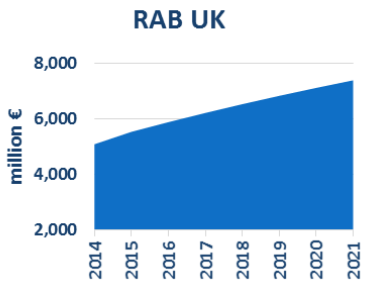
Operating expenses are predicted to follow RAB decrease and we estimate an average drop of around 2% per year, while levies remain quite unchanged. The projections indicate a stabilization of EBITDA (variations lower than 1% per year) in upcoming future and EBITDA margin always greater than 75%. It can be explained by the reduction in energy demand (-0.8% per year) and lower RAB, contrary to the improvement on operating expenses. Investments are not enough to cover depreciation and, as consequence, asset base in Spain is expected to decrease at a slow rate.



Graphic 20: RAB forecast for Spain



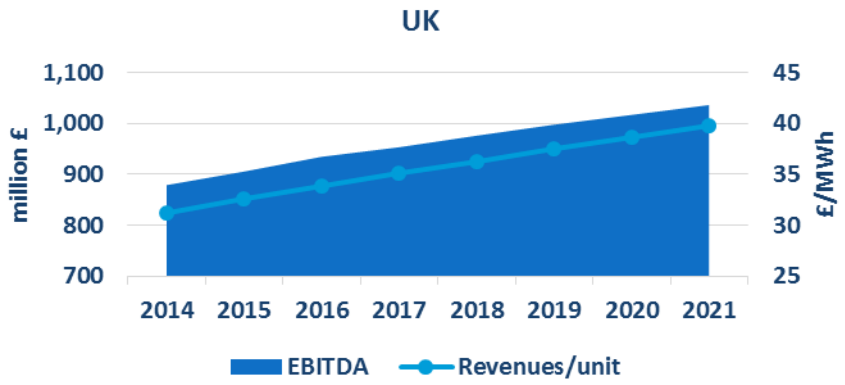
Graphic 21: EBITDA and Revenues / unit forecasts for Spain



Graphic 22: RAB forecast for UK

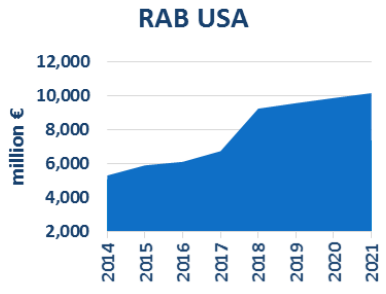
During 2014, in UK, *Iberdrola* distributed 36,359GW for its 3.5 million supply points through its two subsidiaries *Scottish Power Manweb* and *Scottish Power Distribution*. *Gas and Electricity Markets Authority* is the regulator responsible for setting remuneration guidance, which is established separately for transmission and distribution activities. RIIO-ED1 is the model currently in use and its guidelines are quite similar to the Spanish one. The estimated remuneration after-tax for 2015 and afterwards is 7.5% for transmission and 7.2% for distribution[9]. Both values can be updated every year till the end of this regulatory period in 2023. During this period *Iberdrola* is planning to invest £4.7bn and expand its asset base by over 40% till 2021.

RAB evolves from £5,075 million in 2014 to a projected value of £6,643 in 2021 (exchange rate evolved from 0.86 to 0.71 £/€). Expected EBITDA reflects investments made, with an average increase of 1.4% per year, reaching almost £1,000 in 2021. On what relates to operational expenses we estimate them to increase by half of allowed EBIT variation, to evidence efficiency gains.



Graphic 23: EBITDA and Revenues / unit forecasts for UK

In the USA market *Iberdrola* USA operates through four subsidiaries: *Central Maine Power* (CMP), *NY State Electric & Gas* (NYSEG), *Rochester Gas & Electric*, and *Maine Natural Gas Corporation*. These companies distributed 33,335GWh of electricity last year on 1.8 million supply points and 40,870GWh for their 0.6 million gas users. The end of the merger process with *UIL Holdings* will strongly impact the results in 2016. We assumed the new company to be fully integrated during 2016.



Graphic 24: RAB forecast for USA

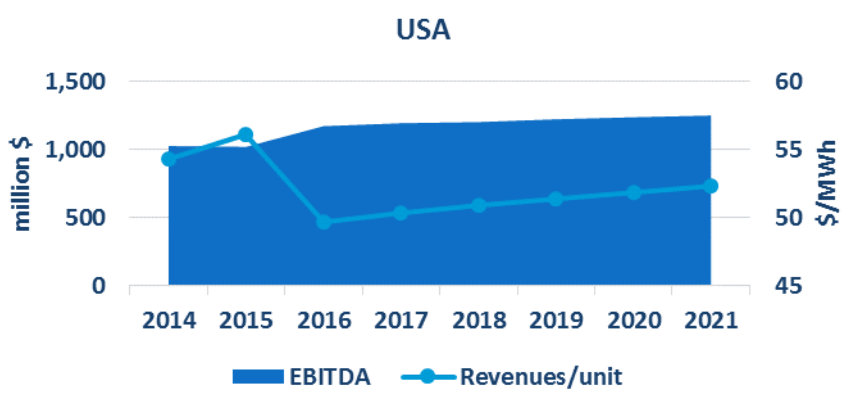
The expected ROE is 10% for distribution and 11% for transmission assets for the four current operating subsidiaries, a higher value when compared to the European ones. The revenue coming from assets from the former *UIL Holdings* (including both transmission and distribution) is established at 9.8%. The separation between these two categories of assets (*UIL* and the others) has the intent of reflect operations in different geographic locations, characterized by distinct regulations, and to better understand the impact of the merger in terms of operational results. We predict those remunerations to keep unchanged in the future due to the stability of USA regulation. It puts the country as the most profitable one among the 3 major locations for the Networks

UIL merger increased RAB by more than $6 billion.

9.4% and 9.0% for transmission and distribution respectively.

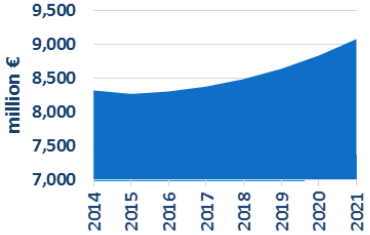
business. It is one of the reasons to explain high levels of investment made, mainly in distribution assets (75% on average). We expect RAB to reach more than $10.6 billion by the end of 2021, what represents an increase of 70% compared to 2014 (mostly due to *UIL* merger). The major investment is the transmission interconnection between New England and Canada that was planned to be operational by the end of 2015 (total investment of $1,400 million).

From the estimations above we reach an EBIT of $937 million in the end of 2016 and an average 3% annual increase afterwards till $1,082 million in 2021. Levies and operating expenses would increase, reflecting the larger RAB under management.



Graphic 25: EBITDA and Revenues / unit forecasts for USA

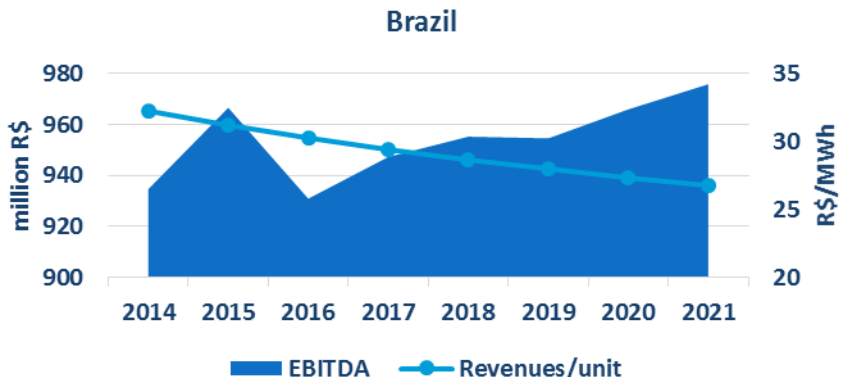
RAB Brazil



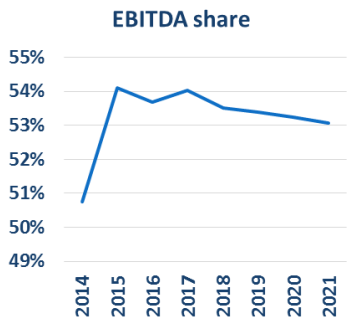
Graphic 26: RAB forecast for Brazil

The fourth geography where *Iberdrola* operates in this segment is Brazil. *Coelba*, *Cosern*, *Celpe*, and *Elektro* are the four distributors and they are under regulation settled by *Associação Nacional de Energia Eléctrica* (ANEEL). The remuneration scheme is similar to countries analysed before: it takes into account the asset base, operational costs and a factor based on quality of energy transmission and distribution (frequency and duration of interruptions). For 2014 the after-tax remuneration rate was 7.5% and we expect the rate to be maintained in the next few years. The distributors are among the country's best in terms of efficiency so we don't expect relevant improvements in this parameter.

According to the investment plan for Brazil, we expect RAB to have an increase of 9.1% per year between 2014 and 2021. The value of the assets was affected by the depreciation of the Brazilian real against Euro. The asset base allows the company to reach R$931 million EBITDA by 2016 and R$976 million by the end of 2021.



Graphic 27: EBITDA and Revenues / unit forecasts for Brazil



Graphic 28: EBITDA share of Networks business

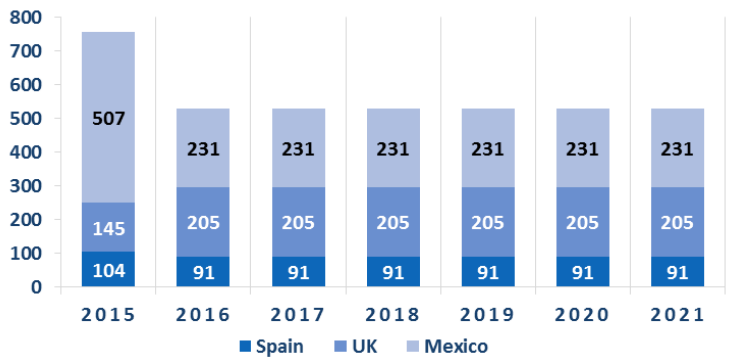
As a whole we expect this business segment to increase its relevance within *Iberdrola*. The division of activities amongst more stable (UK, Spain, and USA) and growing markets (Brazil) gives the solidity but also the prevision that growing opportunities are being captured by the company. The overall effect we estimate to be an increase from 49% of *Iberdrola*'s EBITDA in 2014 to 53% in 2021.

After 2021 we established the perpetuity growth to be 0.5%. We expect this sector to keep being fundamental in the strategy of the company and to invest in some of the markets, namely Brazil, USA, and UK.

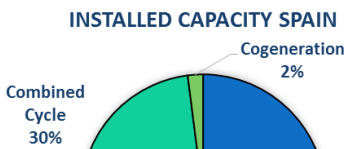
Generation and Supply business

Generation and supply are two different businesses that *Iberdrola* clustered as a way to reduce costs and avail efficiency gains coming from synergies. This one single business unit comprises the electricity production under ordinary regime and the distribution of electricity and gas.

At a consolidated level, it is clear the de-investment occurring in this area. EBITDA numbers decreased in the last years as a result of the lower investment year-by-year in European zone. In this region, company is focusing its efforts on improving operating efficiency and developing a loyal customer-base to maximize profits. In Mexico the strategy is different and a higher volume of investments is being allocated to new infrastructures. The market is not as mature as the European one, which allows for larger margins and more growth opportunities.



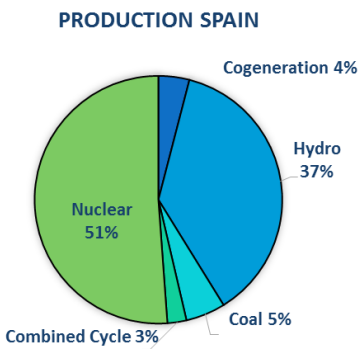
Graphic 29: forecasts for CAPEX on Gen&Sup by country



In Spain *Iberdrola* has a total installed capacity of 19,176MW and hydroelectric production is the most relevant source, representing 46% of total capacity. It benefits from the fact that it is one of the cheapest ways to produce electricity. However it is also subject to large fluctuations in the final output due to climatic conditions. The load factor on nuclear production (82% in 2014 against 23% of hydroelectric production) makes this the larger technology in terms of production, representing more than half of total output (24,431GWh).

Legislation is still uncertain but we predict the shift to other technologies and consequent decrease in share of nuclear production after 2020. Production on combined cycle centrals have been decreasing and coal-fired plants load factors are higher when it's necessary to compensate low hydroelectric production. No new installed capacity is being planned to be added.

Graphic 30: installed capacity in Spain by technology

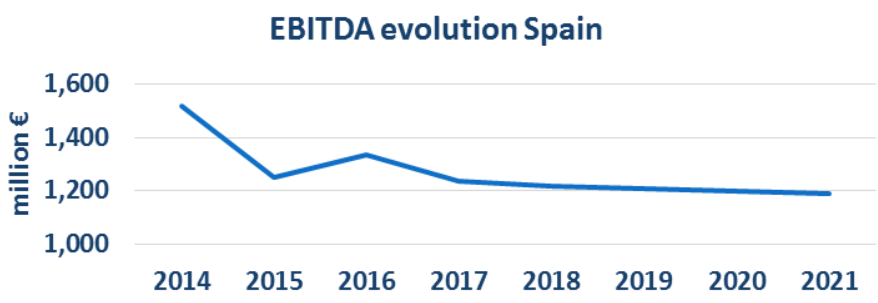


Graphic 30: energy produced in Spain by technology

The continuous shift of consumers to the liberalized market is reducing the margins on the business, as companies fight on prices to capture the maximum number of clients. Adding to the fact that electricity demand in Spain is expected to decrease (-0.8% per year), we expect a reduction of the profit for this business unit. We assumed 1.5% decrease per year on supply margin to reflect the increasing competition and lower consumption per capita.

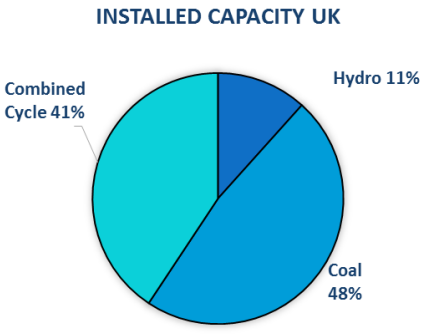
On our estimations the spark spread (difference between price of electricity and cost of production recurring to natural gas) will go back to negative values (-4 €/MWh) after 2017 and will remain well below the 17 €/MWh estimated for the average dark spread between 2015 and 2021.

Given the efficiency program being applied on *Iberdrola*, we assume the ratio NOE/gross profit to improve 0.5% yearly, representing 18% decrease for the period 2014-2021. The RD 15/2012 states 7% tax has to be paid on electricity sale in the market, increasing its marginal price. As result we expect EBITDA for 2015 to decrease to €1,252 million and recovering in the following year. We estimate it to reach €1,285 million in 2021, visibly below the 2014 level (€1,518 million). The Spanish division should remain as main provider of results in this business area, as in 2014 it represented more than 65% of total EBITDA. We expect this share to decrease to 58% in 2021.

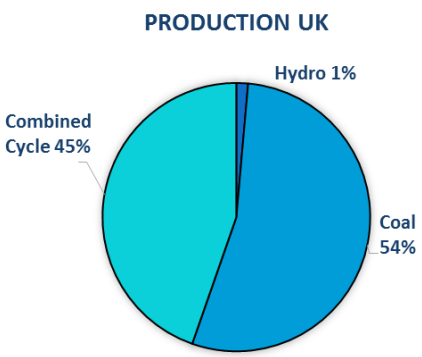


Graphic 31: EBITDA forecasts for Spain

Scottish Power is *Iberdrola*'s subsidiary operating in United Kingdom. In 2014 it was responsible for 20% of Generation & Supply business EBITDA (€457 million). The production mix is distinct from the Spanish one, with more exposition to high variable costs technologies. Coal-fired and combined-cycle power plants together manage 4,271MW (2304MW for coal; 1967MW for CCGT) out of 4,835MW total installed capacity in UK.



Graphic 32: installed capacity in UK by technology



In a recent speech from a British minister, he defended government's position about coal-fired plants, which they intent to close by 2025. It means almost half of Scottish Power installed capacity has to be replaced and it should happen by subsidize investments in CCGT and nuclear plants. The Draft National Policy Statement for Nuclear Power Generation sets a target for 16GWe of new nuclear capacity to be ready by 2030[10]. We don't expect a relevant variation in hydroelectric capacity, following the current policy of the company in UK. However, no legislation has been approved yet and future consequences are still unclear.

In the generation business, hydroelectric production will keep representing a relative small share of total production. So the production costs are highly dependent from fuel costs, which are expected to decrease as we have seen before. As a consequence of the expected rise in electricity price, we predict both spark and dark spread to deteriorate (from 8 to -2 £/MWh and 18 to 13£/MWh respectively for 2015-2021), in line with previsions for Spain. We expect a change in installed capacities and load factors, as CCGTs increase production and coal-fired plants start the deactivation process. This change would occur closer to the 2025 announced date and it doesn't affect our valuation by now.

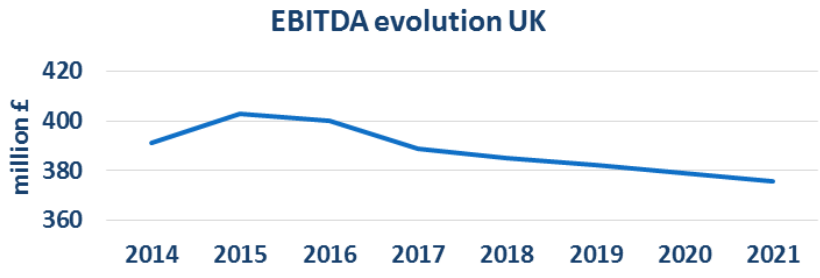
In the supply business we expect a decrease in gross profit as a result of lower demand mainly. We assumed gross margin to be equal to the average of 3 years (2012-2014) and expect it to be maintained in the future as the market is stabilized and no relevant legislation adjustments are planned.

Graphic 33: energy produced in UK by technology

We expect gross profit to slowly decrease in the next few years (2% annually). Again due to the efficiency program, operating profit is expected to decrease in the upcoming years. *Climate Change Levy* on fossil fuels and nuclear sources will be maintained till 2023, but the carbon floor price (legislated in the *Electricity Market Reform* in 2011) has a larger time-horizon and specific goals for the future: minimum price of £16 per tonne CO2 for 2013 (when it was implemented), a steady rise to £30 per tonne in 2020 and accelerating to £70 per tonne in 2030. To include this impact on our estimations we increase levies on yearly basis.

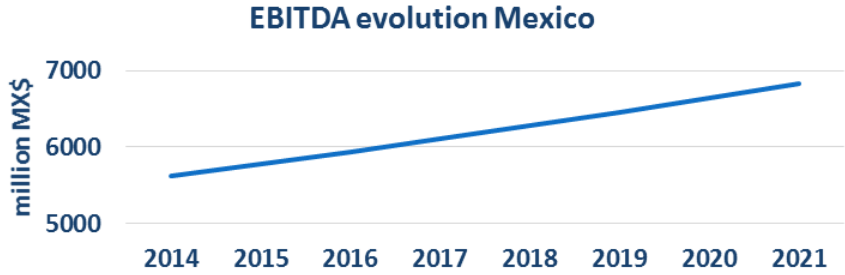
Summarizing EBITDA and EBIT will follow the same path of gross profit and decrease in the next few years. We estimate EBITDA to decrease 7% from 2015 to 2021 to £1,149 million. The share on this business segment increases to 25% mainly due to the appreciation of the Pound against the Euro.

[10] Source: World Nuclear Association, "Nuclear Power in the United Kingdom", updated in 31st of December 2015. Accessed on January 8, 2016



Graphic 34: EBITDA forecasts for UK

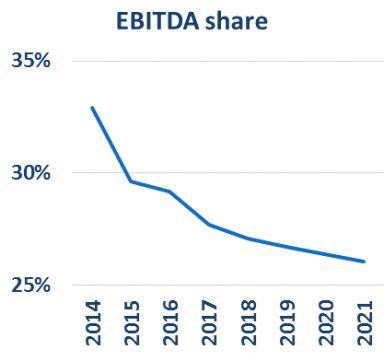
Mexico presents a different business profile from the previous markets. Most of the energy produced is sold to *Comisión Federal de Electricidad de Mexico*, currently the world's largest client of *Iberdrola*, on a regime of *Power Purchase Agreements* (PPA). With the last 857MW long-term contract signed recently, the total installed capacity contracted reaches 5,390MW. This value is higher than the current 5,030MW installed capacity but the addition of 650MW during this year would allow the company to satisfy the PPA conditions. The contracts provide more certain and predictable returns and it aligns with company's strategy. We estimate future cash flows to increase 3% each year, the same change on predicted energy demand. Under that assumption we estimate revenues to achieve over MX$21 billion in 2021 and EBITDA to be MX$6,833 million. The Mexican business unit will increase is share from 15% in 2014 to 17% in 2021.



Graphic 35: EBITDA forecasts for Mexico

Energy is produced resorting mainly to combined cycles plants (4,830MW of installed capacity representing 96% of total) and average load factor reaches 88%, as they are an essential part of basic generation service in Mexico.

The reform that is taking place in Mexico and the increase in demand makes it a very desirable location for electric companies that seek for growth opportunities. The reform intents to allow private participation in all segments of Mexico's electricity sector for the first time. The goals of the Mexican State are to improve the efficiency of country's gridlines and diminish the cost for electricity users. At the same time it is creating opportunities for the private companies to expand their businesses. The investments reflect the importance *Iberdrola* is giving to this market and production is expected to grow in the upcoming years, as well as the profits.



Graphic 36: EBITDA share of Gen&Sup business

Summarizing this is a business that is expected to suffer on the next years. A proof of that is the decrease of 11% on EBITDA for 2014-2021 and the decrease in EBITDA share from 33% in 2014 to 26% in 2021. As a result of that we established a negative perpetuity growth of -0.5% to express the continuous divestment and less profitability of the sector.

Renewables

Iberdrola Renovables SA is the *Iberdrola*'s subsidiary which executes deregulated activities in generation and commercialization of electric power using renewable sources (hydraulic, wind, solar thermal, photovoltaic and biomass). It includes also production, processing and commercialization of biofuels and by-products; and development of projects and consultancy services related to these facilities.

Avangrid is 2nd largest US wind energy operator

Renewables sector has been one of the major focus for *Iberdrola*, since growth opportunities are larger than in any other sector. The major investments from last years allowed the company to position as world's largest wind energy producer, by far the most relevant source of energy within the subsidiary (more than 95% of electricity production and EBITDA), what we expect to be the future trend also. The merger with *UIL* enhanced the position in wind energy market.

In terms of changes in demand, we don't predict it to affect significantly production by renewable sources. These alternative energies are under special regime for energy production and, as consequence, its production has priority and it's first sold to the market. One problem with renewables is the instability of production, since it is dependent of some factors, like weather conditions.

Avangrid	
RAB	8.3 $b
Clients	3.1 m
Electricity capacity	6.3 GWh
Wind capacity	5.6 GWh

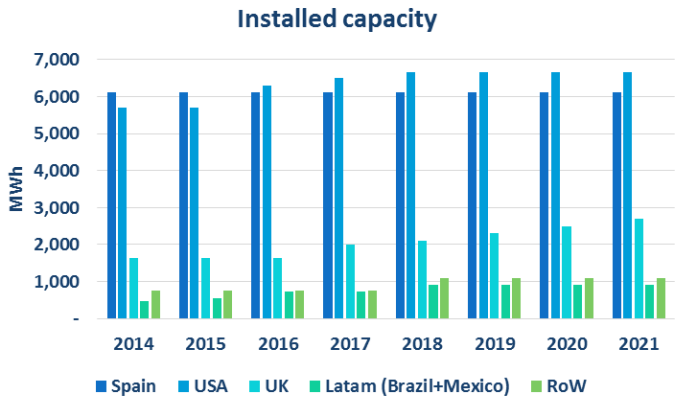
Table XI: operational facts about Avangrid

Nowadays the sector is starting to feel the cut in incentives and subsidies by governments. When renewable energy became popular, investments in renewables were highly subsidized, as it was part of a strategy to achieve environmental targets, like CO2 emissions reduction. The targets in Europe are defined by *European Commission*, which sets for Spain 20% of renewable energy share by 2020 and 15% for UK; in USA the Government sets on 20% the share target by 2030 (excluding large hydroelectric production).

The fast implementation of renewable technologies and reductions of costs and efficiency gains in production, have reduced the gap on levelized costs of energy for renewable and conventional sources[11]. It means the overall competitiveness of different generating technologies have approached, what leads to a decrease in government support[12].

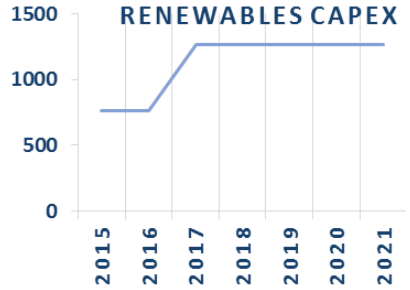
Currently *Iberdrola Renovables* operates 14,116 MW of installed capacity, with special relevance for Spain (5,509MW), USA (5,484MW), and UK (1,1611MW). Latin American countries have been starting to develop in this area with investments in recent years, however their capacity only represents around 3% of total. At the EBITDA level, *Renovables* contributed with €1,326 million to group's accounts.

[11] Source: BusinessGreen, "Grid parity for renewables 'a reality in the coming years'"
[12] Source: Energy Information Administration (EIA), "Annual Energy Outlook 2015 with Projections to 2040", U.S. Department of Energy, published in 2015. Accessed on January 8, 2016



Graphic 37: installed renewables capacity by geographic area

Iberdrola invested billions in this business since 2010, allowing production to increase by 33%. Projected CAPEX is in line with company's strategy and more than €750 million are expected to be invested annually. Capacity is forecasted to increase about 19% between 2014 and 2021. USA, UK, Latin America, and Rest of the World (RoW) should see their capacities increased by 17%, 65%, 24%, and 47% respectively, while Spain is expected to maintain capacities quite unchanged. In what refers to USA, renewable assets from the former-UIL that reach more than 600MWh, will be the main driver of the growth in installed capacity. After 2016 we expect the increase in net CAPEX to reach €500 million per year, as result of the improvement in financial conditions in *Iberdrola*.



Graphic 38: Forecasted CAPEX on renewables

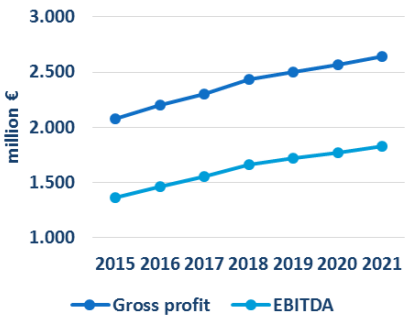
We assumed load factors to be equal to the average of previous 5 years and they are in the range 23%-29% for the 5 relevant locations. Under that assumption, production is expected to increase globally by 21% till the end of 2021, with locations' growth reflecting the investment profile: large increase for UK, USA, LatAm, and RoW; Spain remains stable.

The outlook in Spain for renewables has been deteriorating in last years

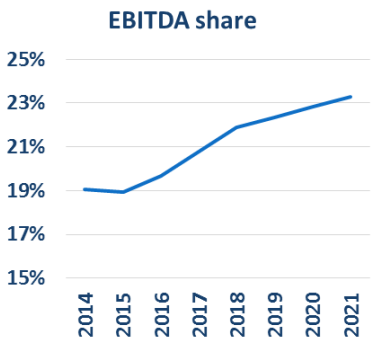
In Spain the renewables market is passing through some uncertainty. Government was obliged to abandon some programs to reduce costs (€1.7 billion a year on a new *Energy Renewable Law* approved in 2014, impacting wind energy sector in €400 million per year) and since 2013 feed-in tariffs to special regime producers have come to an end. The rate of return for renewable companies decreased from more than 10% to around 7.5% and *Iberdrola* was one of the companies forced to change its business plan. In 2015, according to *Comisión Nacional de los Mercados y la Competencia*, the government support to renewables and cogeneration decreased by 7%. Related to future policies we can't define what path will be followed.

In the UK market since August 2015 renewables no longer receive exemption on *Climate Change Levy*, what is expected to affect the system of £3.9 billion over the next five years. A system of feed-in tariffs will replace the old *UK Renewables Obligations*, ensuring a pre-determined remuneration per MWh produced.

US Environmental Protection Agency is the entity responsible for renewables sector. It has implemented some policies over the last few years to stimulate the sector. From setting a minimum percentage of renewables for electric providers, a system of feed-in tariffs or a limit to



Graphic 39: gross profit and EBITDA forecasts for Renewables



Graphic 40: EBITDA share for Renewables

gas emissions, these are some of the policies that make USA a more favourable environment for the development of renewables sector.

In Mexico the Congress recently voted to approve the *Energy Transition Law*, to ensure the development of clean energy sources mainly through private investment. The legislation intents to help Mexico to achieve the goal of 35% clean energy by 2024, and it opens the door to possible future governmental incentives that can be availed by *Iberdrola*. We see it as a positive measure for the development of the business unit in Mexico.

As result, gross profit is expected to see an increase in its figures starting this year (€2,075 million) and keep an average increase of 3.7% annually till 2021. For the operating expenses we predict two different effects: an increase due to a larger installed capacity to manage; a decrease as a result of a reduction on LCOE on wind energy[13][14]. The overall effect we estimate to be a 2% increase per year, what means a reduction of OPEX effect on gross profit.

EBITDA increases by €499 million between 2014 and 2021, as a reflex of EBITDA/MWh estimations. 2014 was the year with lower margin since 2010, due to the reduction of some incentives in the main locations. But the shift on investment to more "renewables-friendly countries" leads us to estimate a 2€ increase each year on EBITDA/MWh. This number arises from the conjugation of some factors: the new wind parks function on a system of PPA, granting better revenues than the old ones selling electricity to the market (+); the change in country's mix, with larger shares for countries with a better outlook on renewables, like Latina American countries and UK (+); increase in the share of offshore wind compared to onshore, offering substantially better revenues per megawatt-hour (++); poor outlook for the older wind parks, which are expected to receive lower payments on electricity generated (-). Summarizing we estimate in +2 €/MWh per year the average impact on EBITDA.

For the future we expect an increase in the importance for this sector within the group, reflected in the EBITDA share increase from 19% to 23% (2014-2021). Has a perpetuity growth we established a value of 2%, what we see as right evaluation for two main reasons: it was already stated by *Iberdrola* management that this sector will remain the main focus of investments for the company; the outcome from the COP21 ensures that there is a political desire for renewables to increase its importance in the international energetic panorama.

[13] Source: IRENA, "Renewable Power Generation Costs in 2014", published by International Renewable Energy Agency in 2015. Accessed on January 8, 2016 LCOE is the price for generated electricity that makes the NPV of an installation equals to zero

[14] LCOE is the price for generated electricity that makes the NPV of an installation equals to zero