

## ENDESA SA

IBERIAN UTILITIES

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## COMPANY REPORT

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## TIME TO CHANGE GEAR

THE COMPANY MAY LOOK FOR MINORITIES  
BUYOUT IN LATAM

- **We initiate coverage on Endesa with a BUY rating and a Price Target of Eur 22.36 per share.** We see the stock trading at lower multiples vs its Iberian peers (6.6x EV/EBITDA 2013 vs 7.0x and 7.1x P/E 2013 vs 9.6x) that in our opinion is not deserved since the company has not been more penalized than the sector overall by the new energy reform and its exposure to Latin America will allow it to grow at a faster pace with respect to its peers.
- **Strengthen the position in Latin America.** Thanks to the strong presence of its controlled companies in Latin America, we expect Endesa to consolidate its position in this market, taking advantage of the good financial liquidity that could ultimately lead to launch a tender for minorities. The success of Enersis' capital increase represents one step ahead to improve the visibility of its assets in the area.
- **Uncertainty in Iberia but still positive forecasts.** Following the announcement of the regulatory changes in Spain we believe that, despite the impact on 2013 earnings, the new remuneration system will still provide a reasonable return to the distribution segment for which we have estimated an EBITDA CAGR 2013-2018 of 7%.
- **The outlook for pool prices is likely to change.** Despite having seen a shrinkage in pool prices in the last few years, we believe this trend will not last in the future as coal prices should gradually increase (we assume 10% CAGR by 2020) due to higher coal consumption and CO2 emissions levels.
- **Leverage under control and attractive dividend potential.** The strong cash generation should enable the company to further reduce its Net Debt from an already attractive metric of 1.3 Net Debt/EBITDA 2012. We also believe that the company will start paying dividends again, as its financial position will not justify another negation (expected DY 4.5% for 2013).

Recommendation: **BUY**Price Target FY13: **22.36 €**

Potential upside 21.72%

Price (as of 26-Aug-13) **18.37 €**

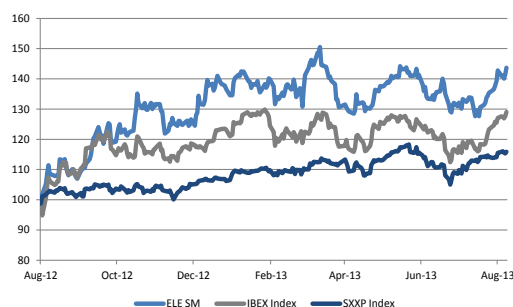
Bloomberg ticker: ELE SM

52-week range (Eur) 13.62-18.66

Market Cap (€ mln) 19,518.09

Outstanding Shares (mln) 1,058.75

Source: Bloomberg



Source: Bloomberg

| (Values in € millions) | 2012   | 2013E  | 2014E  |
|------------------------|--------|--------|--------|
| Revenues               | 33.933 | 33.355 | 33.396 |
| EBITDA                 | 7.005  | 7.135  | 8.155  |
| Net Profit             | 2.771  | 2.672  | 3.404  |
| EPS (Eur)              | 2.62   | 2.52   | 3.21   |
| P/E (x)                | 5.2    | 7.1    | 5.7    |
| DPS (Eur)              | 0      | 1.0    | 1.0    |
| Dividend Yield         | 0      | 4.5%   | 4.5%   |
| EV/EBITDA (x)          | 6.0    | 6.6    | 5.8    |
| Net Debt               | 8,874  | 7,397  | 6,092  |
| Net Debt/EBITDA (x)    | 1.3    | 1.0    | 0.8    |
| ROIC                   | 7.0%   | 6.7%   | 8.1%   |

Source: Bloomberg, Analyst Estimates

## Company description

Endesa S.A., located in Madrid, is one of the largest electric power companies in the world and Spain's largest utility. It is also the leading private multinational enterprise in Latin America and operates also in the gas.

THIS REPORT WAS PREPARED BY SARA PICCININI, A MASTERS IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS, EXCLUSIVELY FOR ACADEMIC PURPOSES. THIS REPORT WAS SUPERVISED BY ROSÁRIO ANDRÉ WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (SEE DISCLOSURES AND DISCLAIMERS AT END OF DOCUMENT)

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## EXECUTIVE SUMMARY

***Endesa is a Spanish integrated utility with a sound position in Latam totaling 39.403 MW of installed capacity***

Endesa (ELE SM) is the largest integrated utility in Spain with a sound position in Latin America as well. The company's worldwide installed capacity is 39,403 MW as of 2012, 58% based in the Iberian region (mainly characterized by conventional thermal plants) and 42% in Latin America. The generation output amounted to 141,434 GWh in 2012, 2% higher than in 2011. Endesa operates in each segment of the energy supply chain, from generation to retail sales. It has 25 million customers globally, equally divided between Iberia and Latam.

***We do not expect the regulatory uncertainty in Iberia to affect the company's long term performance***

In Iberia Endesa operates in a complex regulatory environment that has penalized the company's earnings especially in the distribution segment (Eur 228 mln of revenue cut in 2012). However, we believe that the change to a RAB model in the regulated business will not affect Endesa's performance in the long run. We have estimated a 2013 RAB of Eur 12,479 mln, which will lead an EBITDA CAGR 2013-2018 of 7%.

***The positive outlook in Latin America and the strong cash position will allow Endesa to realize its plan to consolidate its presence in emerging markets***

We expect Endesa's good and stable cash position to allow it to trigger a tender for minorities soon. We see growth opportunities in this market because of the increase in energy demand and the stable regulatory framework. The EBITDA of the business have been growing at 6% during the past years. The recent conclusion of Enersis' capital increase represents one step further through the company's growth prospects in Latam.

***Movements in pool prices are key determinants in revenue generation in Spain***

We note a high sensitivity of EBITDA to changes in pool prices in the Iberian generation business. According to our forecast, power prices will not increase in the short run (-2% CAGR 2013-2016) and this will lead to a decrease in margin that will be more evident in the next two years, thanks to the hedging of forward agreements in 2013-2014. However, the shrinkage in coal and carbon prices that has characterized the last few years will not last in the long run where we expect the higher coal consumption and emission levels to bring pool prices over 50 Eur/MWh again. The EBITDA 2013E of the Iberian generation business shows a 13% increase due to lower fixed operating expenses and personnel reduction.

***We have a BUY recommendation with a Price Target of Eur 22.36. We highlight the cheaper P/E multiple with respect to peers***

We have valued Endesa with a SoTP approach estimating a Price Target of Eur 22.36 per share YE13 which gives 24% upside potential and lead us to recommend a BUY rating. The company is trading at a significant discount to its peers (7.1x vs 9.6x P/E p.a.) and we believe this is not deserved. We think the worries about the new regulatory framework should be mitigated by the company's stable position in the liberalized market and the growth opportunities in Latin America.

## THE IBERIAN MARKET

### *Spain synonymous of Tariff Deficit...*

The Spanish regulatory environment for Utilities is one of the most important topics currently under discussion for this sector. "Tariff Deficit" is the key phrase in this debate, and the measures adopted and yet to be defined by the latest Royal Decree (RD) in July seem to not have a clear horizon. In order to understand where this issue comes from and the impact on the Iberian Utilities, we need to analyze the structure of the Spanish market, where Endesa is one of the most important players.

### MACROECONOMIC ENVIRONMENT

### *Signals of recovery, but Spain is still in the backseat*

Figure 1: IMF projections for Spain and Portugal GDP growth

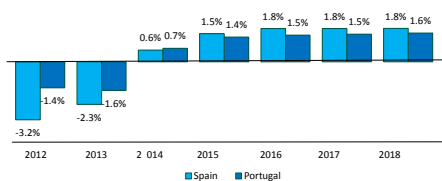


Figure 2: Unemployment rate among European Economies (% of labour force)

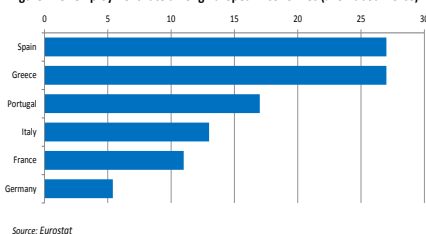
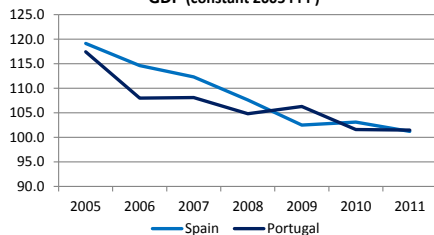


Figure 3: Energy use (kg of oil equivalent) per 1.000 GDP (constant 2005 PPP)



Despite Europe showing signs of exiting the recession, Spain is still experiencing a difficult moment and the recovery is expected to be slow in the coming years. The country's GDP forecast for 2013 is still negative (minus 2.3%) and is expected to grow at a very slow rate in the future (CAGR 2013-2018 1.09% according to data from the IMF, Figure 1). This is mainly led by a strong decrease in consumption at the household level and the contraction of capital expenditure by the Spanish Government. The unemployment rate is currently around 27% and even higher for young people (Figure 2).

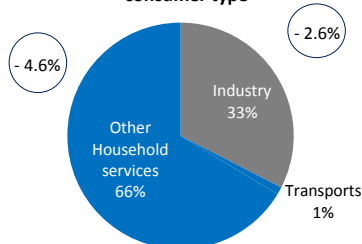
The larger than expected slowdown in Energy prices decreased the level of inflation in the first half of 2013, although this was partly offset by higher food costs. We expect inflation to remain at an average level of 1.5% during the forecast period.

In Portugal political uncertainty does not seem to have had a negative impact on the market, as the prime minister often reassured about keeping control of the country till the end of his legislative period (4Q 2015). The Government also set a tax reduction plan in July that will reduce the corporate tax rate in 2018 to reduce the gap vs other European countries and promote investment. This will have a positive impact on companies that have operations in Portugal, although we believe it will not have a significant impact for Endesa due to its limited presence in Portugal.

The drop in Energy prices seen in the past few years is due to several factors.

**Electricity consumption decreased by 3.1% in June 2013 YoY and it looks difficult to end the year with something better**

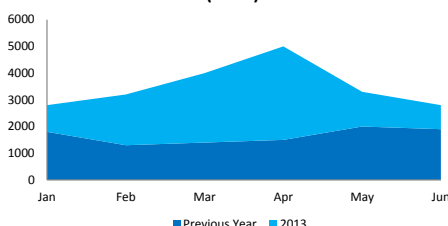
**Figure 4: Iberia Energy Consumption of electricity by consumer type**



Source: Eurostat

**Given the strong hydro output in 2013 this can be already considered a wet year**

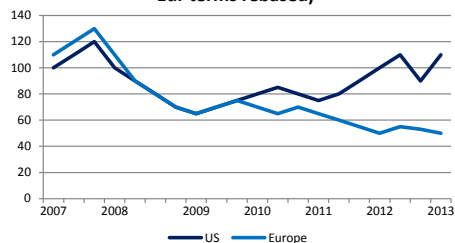
**Figure 5: Availability of Hydro resources 2012 vs. 2013 (GWh)**



Source: Statistical Bulletin June 2013

**The slowdown of the coal prices given the excess supply contributed to push down power prices**

**Figure 6: Utilities stocks performance (FTSE indices in Eur terms rebased)**



Source: ft analysis based on Thomson Reuters, OECD/IEA, Bloomberg

On the demand side, Red Eléctrica registered a decrease in electricity demand of -1.9% YoY (adjusted) and 7.7% YoY non-adjusted<sup>1</sup>. The amount of electricity required by industry felt 2.6% YoY, while that used by the service sector dropped by 4.6%, according to the major electricity consumer index of REE (Figure 4). On aggregate, this segment of major consumers used 3.1% less electricity YoY. This value shows some recovery but given the 1H demand evolution it looks unlikely to end the year with something better than -2%, which is negative for the tariff deficit recovery plan. Moreover, we do not see any support from the RD of July as it requires more consumers' contribution to reduce the tariff deficit)

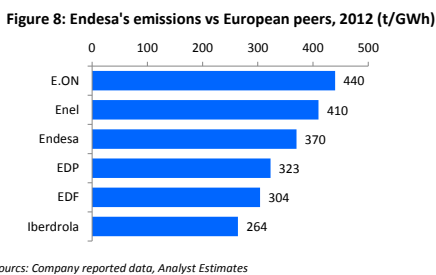
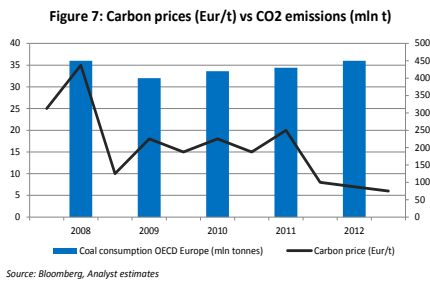
On the supply side, during the 1H 2013 nuclear power covered the largest share of total demand, at 39%, followed by thermal (35.4%) and hydro (24.8%). We highlight the strong hydro output, which covered 42.2% of the demand in April and increased 64% YoY (Figure 5). The current 31 TWh<sup>2</sup> output (one year moving average) leads us to already consider this as a wet year (around 28TWh average hydro year). Hydro contributes almost 16% of the electricity generation in June 2013 and the high level of available sources has contributed to a decrease in power prices.

Coal prices are a key driver for energy prices since coal is the main fuel for base load plants. The level of coal prices declined sharply during 2012, mainly due to the increase in supply from the main markets of the US and Asia Pacific. Endesa has exploited the favorable conditions to increase coal consumption in its thermal power stations in Spain to 9.6 mln tonnes in 2012, 30% more than in the previous year. In particular, the level of imported coal grew sharply from 2011 to 2012 (+34.6%). The draft of the Ministerial Order from the latest regulatory measures contemplates a Eur 50 mln reduction in domestic coal subsidies, in contrast with the plan of the previous reform in February 2012. This can be justified by the intent to reduce coal production, given its rapid increase during the last few years

<sup>1</sup> Figure 3 shows the decline in energy consumption in Spain and Portugal according to the WorldBank

<sup>2</sup> Omel monthly report June 2013

### ***Oversupply of carbon permits and the impact on power prices***



(please look at Figure 6 to compare the performance between European and US Utilities performance).

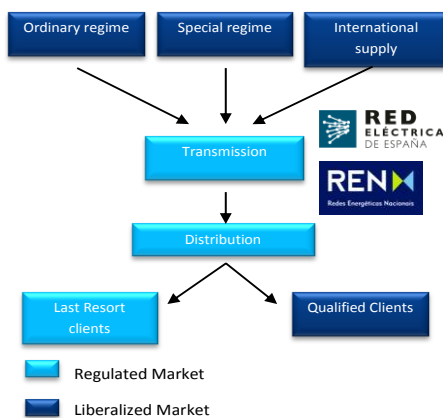
We should highlight that the drop in energy prices is also due to lower CO2 prices. The lower prices were explained by the recent crisis that hit industrial activities resulting in companies emitting a lower level of emissions, as well as the strong increase in the use of renewable energies. As with other markets, CO2 prices are affected by supply and demand. The European Authority sets a cap on the amount of emissions that can be produced and then the limit is allocated or sold to firms in the form of emissions permits. Firms that need to increase their volume of emissions must buy permits from those that require fewer permits. However, the use of thermal plants has becoming convenient during the past four years, therefore the amount of emissions increased (Figure 7). The transfer of permits represents a trade and in practical terms, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions<sup>3</sup>. However, Endesa's allocation for emissions under the Spanish National Allocation Plan (NAP) was 24.3 mln tons in 2012 (including non-mainland systems). In Figure 8 is shown the company's CO2 consumption with respect to its European peers.

## MARKET STRUCTURE AND COMPETITION

In November 2001 the Portuguese and Spanish Governments decided to set up an agreement which led to the creation of a homogenous system, named the Iberian Electricity Market (Mibel). The Mibel started operating in July 2005, with the main goal of guaranteeing that all agents established in both countries to have access to the market operator (OMEL) and to the interconnections with other countries under free bilateral trading conditions. The two main transmission operators, Red Eléctrica de España (REE) in Spain and Red Eléctrica Nacional (REN) in Portugal, have to coordinate and plan the transmission networks' capacity as well as manage operations especially regarding congestion.

### ***Iberia: an integrated and efficient market?***

Figure 9: market structure



<sup>3</sup> Montgomery, W.D (December 1972). "Markets in Licenses and Efficient Pollution Control Programs". Journal of Economic Theory 5: 395–418.

*The government has set a series of regulatory measures in order to increase competition and thus increase the efficiency of the market, but structural characteristics of the market do not support this direction*

The Electricity market is structured in four vertical segments: generation, transmission, distribution and supply (Figure 9). The market is partially liberalized: the transmission and distribution system are regulated activities, while the generation and supply business are liberalized. Despite Endesa being an integrated utility, meaning that it has operations in each segment mentioned, REE is the only operator entitled to manage the transmission network.

*The Iberian Energy market is organized into a pool structure, where energy flows follow a merit order*

**Generation.** The Iberian generators' market is organized in a spot exchange and other intraday markets, which are managed by an authority (Omel), but it also works under forward agreements. Electricity can be produced using several generation technologies. Each technology differs in terms of the

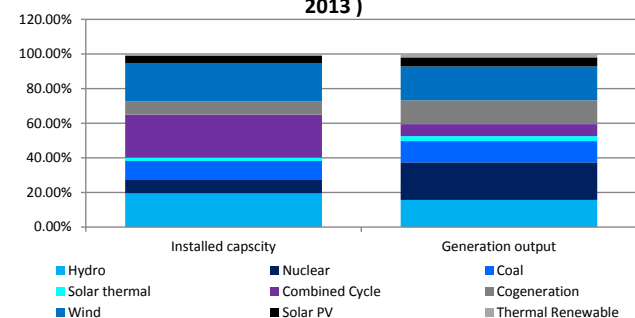
primary energy source used (wind, oil, gas, nuclear, hydro, coal, etc), its flexibility and its cost structure. Depending on the type of electricity produced, generation facilities operate under the ordinary regime or the special regime. Special Regime generators (which consist of small or renewable energy facilities) have the privilege to first serve the electricity system and they are remunerated at tariffs

fixed by Royal Decree, generally higher than the Spanish market prices (please look at the section of this report titled "The tariff deficit and the new

energy reform"). The other electricity produced falls under the ordinary regime, and generally accounts for the largest share of the supply (Figure 10 shows the current energy mix in Spain). Under this regulatory framework, there are four methods of contracting for the price and the amount of electricity: the wholesale energy market (the pool), bilateral contracts, auctions for purchase options and auctions for last resort demand.

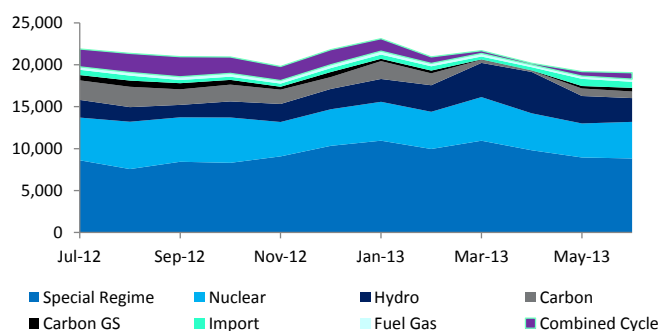
- **Wholesale energy market or Pool.** The bidding process in the Spanish Electricity Market is organized in different moments: there is a day-

**Figure 10: Spanish installed capacity and generation output, (% 1H 2013 )**



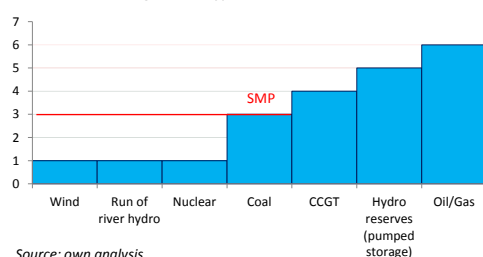
Source: REE

**Figure 11: Day ahead Energy in Spain by technology (GWh)**



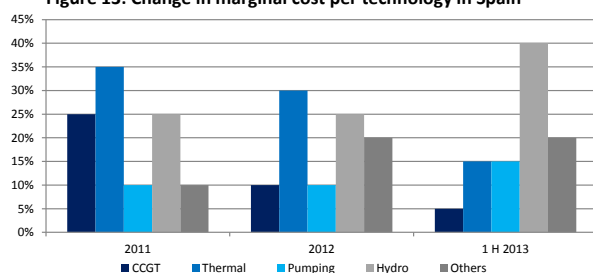
Source: OMEL

Figure 12: Hypothetical merit order



### Coal is still a strong factor in determining the base load in Spain

Figure 13: Change in marginal cost per technology in Spain



ahead market (Figure 11), several intra-day markets and the ancillary service market. When agents do not operate under bilateral contracts, price is set by public auctions and it is determined by supply and demand. Electricity generators set a minimum price under which they are willing to produce a given amount of output. On the demand side, distributors submit the maximum price at which they are willing to purchase a given amount of electricity<sup>4</sup>. After the price is set, the electricity is sold to non-eligible consumers<sup>5</sup> (retailers) at regulated tariffs. Finally, retailers sell electricity to the eligible consumers<sup>6</sup> at unregulated tariffs.

After the submission of the demand and supply bids, the market operator constructs a merit order dispatch by ordering the supply and demand in ascending and descending order respectively. The price that

is defined is equal to the highest acceptable supply bid and is called the System Marginal Price (SMP). Each month Omel publicized which technology has been acting as the “price setter”, i.e. the one that is called last in the merit order to match demand in the day ahead market. It is interesting to note that, at peak hours, the hydro technology almost always sets the price, thanks to its flexibility<sup>7</sup>. The CCGTs have lost significant influence in setting the marginal cost in Spain (Figure 13). This is related to the current poor load factors, which are below 10%. The wet year is having a strong

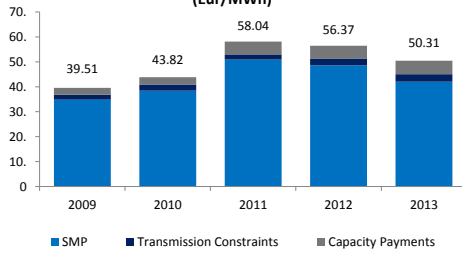
<sup>4</sup> The “Pool” was created on January 1998 and is a day-ahead electricity market where generators can bid their power for each hour of the following day. Electricity starts to fill the demand based on fixed costs and marginal costs. Plants with high fixed costs and low marginal costs are used to meet base-load demand and this typically includes nuclear, given their need to sell electricity to cover their high operational costs. It also includes renewable capacity that cannot be modulated (e.g. wind power) and run-of-river hydro plants. To complete the pool other types of technology will then be used, those with low fixed costs and high marginal costs (e.g. gas and oil turbines). Coal and CCGT operates as “mid-merit” generation and have intermediate margin and fixed costs. An example of energy pool can be observed in the chart. (“*Competition and Regulation in the Spanish Gas and Electricity markets*”, IESE Public-Private sector research, Giulio Federico and Xavier Vives) Figure 12 shows there is an example of merit order.

<sup>5</sup> Any real person or legal entity which purchases electricity for own use and which is obligated to make such purchase from distribution companies (CNE).

<sup>6</sup> Any real person or legal entity which is free to enter into electricity purchase-sale contracts with any production, import, distribution or wholesale company within the country (CNE).

<sup>7</sup> “*The Spanish Electricity Industry: Plus ça change...*”, Claude Crampes and Natalia Fabra

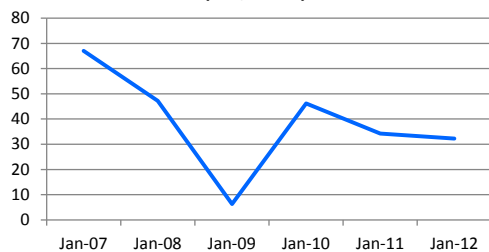
Figure 14: Evolution of final prices in the electricity industry (Eur/MWh)



source: OMEL

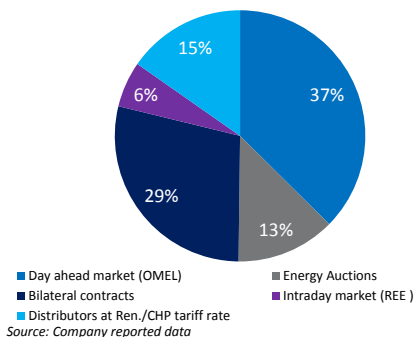
**Iberian pool prices have reached a lower level again after the drop in 2009**

Figure 15: Omel Day Ahead Average Electricity prices (Eur/MWh)



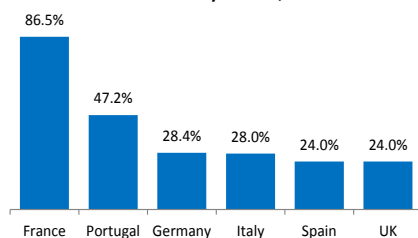
Source: Bloomberg

Figure 16: Energy Output by transactions, 2012



Source: Company reported data

Figure 17: Market share of the largest generator in the electricity market, 2011



Sources: Eurostat

influence on its ability to influence its marginal price but coal is still a strong factor in determining the baseload<sup>8</sup> in Spain.

The intraday market is organized in order to manage the energy to add or remove from the grid after REE has studied the feasibility of the dispatch. The final price of electricity comprises the equilibrium prices in the previously described market, but also other costs such as capacity payments, transmission constraints and the intraday market (Figure 14). In Figure 15 it is shown the evolution of the Pool prices in the Iberian market.

- **Bilateral contracts.** Electricity generators, and liberalized suppliers or qualified consumers may set bilateral contracts without participating in the wholesale market. They freely agree on terms and conditions in order to exchange the amount of energy they require. This type of agreement is a good instrument to hedge commodity prices risk. In 2012, Endesa sold 65,017 GWh on the wholesale market, 27.6% of the total mainland energy supply. Almost 60% of the company's sales were the result of bilateral contracts and the remaining 40% were made on the OMEL and REE markets<sup>9</sup> (Figure 16).

**Auctions for purchase options and energy auctions for last resort demand.** The former allow customers to purchase options during a specific period from the only two operators which are required to do that, Endesa and Iberdrola<sup>10</sup>. In 2012, the energy auctioned by LRS was 57% of the total last resort energy (company data).

The wholesale market in Spain is one of the least concentrated in Europe, higher than only the UK (Figure 17). The government has set a series of regulatory measures in order to increase competition and thus increase the efficiency of the market, but structural characteristics of the do not support its efficiency. The main players are Endesa, Iberdrola and Gas Natural

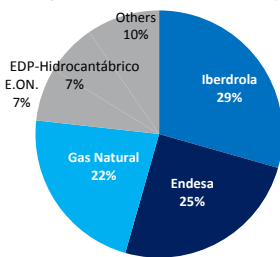
<sup>8</sup> Most commonly referred to as baseload demand, this is the minimum amount of power that a utility or distribution company must make available to its customers, or the amount of power required to meet minimum demands based on reasonable expectations of customer requirements (Energy dictionary – EnergyVortex.com)

<sup>9</sup> Company reported data

<sup>10</sup> Last resort suppliers are appointed by the Spanish Government and supply electricity at a regulated tariff to consumer with lower voltage consumption (less than or equal to 10KW). These operators are permitted since June 2007 to hold energy auctions to purchase electricity at lower price.

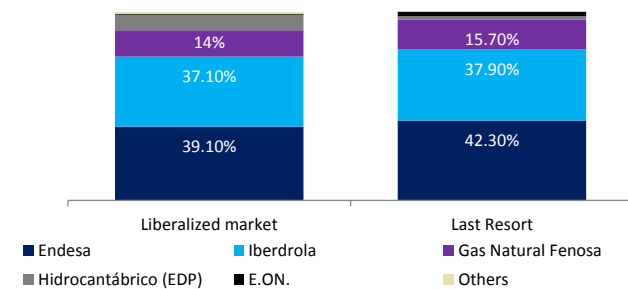
**The wholesale market in Spain is one of the least concentrated among the other European countries**

Figure 18: Available Generation Capacity



**The highest level of competition takes place at a retail level**

Figure 19: Market share Spain Electricity Retail Sector, 2012



Source: CNE, Company reported data

Fenosa. According to the data published by Mibel, Endesa owns 25% of the market share in the generation segment, a value that is very low with respect to 2004 where it used to represent 40% of the market. In the Generation market, the highest percentage of available capacity is represented by Iberdrola, but Endesa has the highest share for secondary reserves<sup>11</sup>(Figure 18). Iberdrola has increased significantly his capacity because of the incentives associated with renewables, while Endesa has kept the level of capacity stable. The company has been always represented the main generator for coal.

**Supply.** The last part of the value chain is the retail sector. The retail market is the one where the highest level of competition takes place, as it is based on the quality of the service offered by the final customer<sup>12</sup>. Regarding the main operators in this segment, Endesa and Iberdrola hold a sound position, both in the liberalized market and as LRS (Last Resort Suppliers), as shown in Figure 19. With the energy reform in July, the tariff of Last Resort will be known as the “Small Consumer Voluntary Price” and will authorize new energy traders to supply domestic consumers. Furthermore, by consumers

will benefit of a social bonus discount<sup>13</sup>: after a period where the social bonus was included in the access tariff, the Energy reform in July restored the payment to Energy companies<sup>14</sup>.

In the gas retail sector, Endesa is still not an evident player. Gas Natural Fenosa is the indiscussed leader with a market share in terms of number of customer of 60.04%, followed by Endesa 14.25%, EDP 10.82%, Iberdrola 10.22% and Galp 4.28% (data reported by CNE 2012).

<sup>11</sup> Amount of reserves that can be activate to balance the grid

<sup>12</sup> Since 2003 each customer is allowed to choose their Energy supplier. However, even if the market is fully liberalized, consumers have the option to be served by a regulated tariff (TUR, only for consumer with lower consumption) or join the liberalized market.the TUR is calculatd as follow: Tariff = basic supply cost + cost of electric power generation + cost of using transmission and distribution + business management costs.

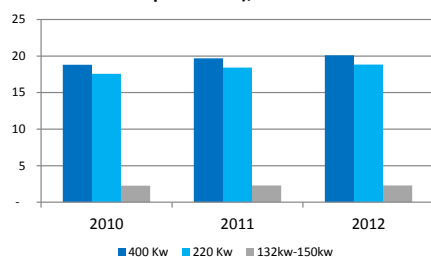
<sup>13</sup> Consumers entitled to receive the social bonus discount according to the RD 6/2009 are large families, pensioners older than 60 with a minimum pension, families where all members are unemployedor low voltage consumers (less than 1 KW) with contracted demand lowe than or equal to 3KW)

<sup>14</sup> For a better and complete explanation about the retail market please read “Electric System In Spain: Generation Capacity, Electricity Production And Market Shares” International Journal on “Technical and Physical Problems of Engineering” (ITPE), 2011

## REGULATED SEGMENT

**REE is the only operator entitled to manage the transmission network since 2007...**

Figure 20: Transmission grid (peninsular and extrapeninsular), km '000



Source: REE

**...Distribution, instead, can be seen as an oligopoly**

Figure 21: Distribution Companies market share in Spain as of 2009



Source: Company reported data

**The complex and strategic nature of the energy market is reflected also in the public policy issues**

**Transmission and distribution.** The main objective of the distribution network is to guarantee that electricity is delivered to households, companies and all users. This is an essential function in any country and therefore it is necessary to control this activity through strict regulation<sup>15</sup>. Typically, transmission grids can support a voltage from 220kV up to 400kV, while the distribution network supports lower levels (the former has a lower risk of losses since it transfers the same level of power, but does not have to modulate it for consumers use, Figure 20). As we already said, the only operator entitled to manage operations in the transmission network is Red Eléctrica. This was the result of a process required by the law 17/2007 which obligated Endesa, Gas Natural Fenosa and Hidrocarbónico to sell their remaining transmission assets to REE by the end of 2010. In the distribution network, however, there are several operators. Endesa has a market share in the distribution network of 42.2% and together with Iberdrola they control almost 80% of the market (Figure 21). As for the gas sector the main operator is Gas Natural Fenosa, with a 70% market share. Currently, most of the gas is imported in the form of LNG (66%) while the remaining 34% arrived via pipeline<sup>16</sup>. The MEDGAZ pipeline that links Spain directly with Algeria, started operations in 2011, accounting for 17% of gas imported via pipeline. Recently Endesa has sold its 12% stake in the share capital of MEDGAZ, while its competitors still retain their participation (Iberdrola and Cepsa 20%, GDF Suez 12%, Sonatrach 36%).

## REGULATION

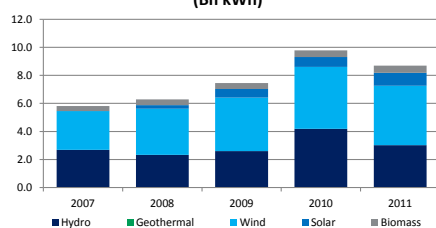
Generation. As previously mentioned, in Spain generators operate under the Ordinary or Special regime, depending on the technology and the size in use<sup>17</sup>. This was set in order to incentivize investments in Spain and to

<sup>15</sup> The transmission grid and the distribution grid are composed fundamentally of power lines and substations, i.e. conductors that transfer the electricity and substations that control its parameters. Voltage is regulated in the various substations and transformer centres to minimise losses and adapt the electricity to the requirements of the consumer centres in compliance with legally defined voltage limits. Basically, the transmission grid supplies the distribution grid from the large production centers and the distribution grids distributes electricity to consumers (REE).

<sup>16</sup> CNE, annual report 2012

<sup>17</sup> Generally eligible facilities to be under the Special regime are those with an installed capacity of 50 MW or less that use cogeneration or any renewable energy source as their primary energy source. RD 661/2007 established framework for the Special regime regulation.

Figure 22: Renewable Energy evolution by source, Spain (Bn kWh)



Source: CNE 2011

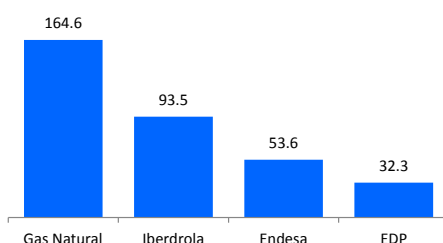
**Historically, the remuneration based on market price plus a premium has been more remunerative**

TABLE 1 - Feed-in tariff remuneration by energy source

| Category | Technology      | Average premium in early years (Eur/kWh)* |
|----------|-----------------|-------------------------------------------|
| a.       | Cogeneration    | up to 13,29                               |
| b.       | Solar           | 24,94                                     |
|          | Wind            | up to 7,32                                |
|          | Geothermal      | 6,89                                      |
|          | Hydro           | 7,8                                       |
|          | Biomass         | up to 13,06                               |
| c.       | Waste combustin | up to 12,57                               |

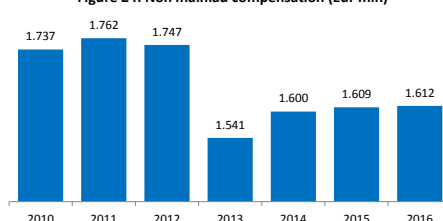
\*Life time of facilities range from 15 to 25 years

Figure 23: Capacity payments for CCGTs 2012, Eur mln



Sources: Company reported data, analyst estimate

Figure 24: Non mainland compensation (Eur mln)



Sources: Company reported data, CNE, Analyst Estimates

develop a stable system in terms of competition and profitability in the renewable segment (Figure 22). There are two main systems to remunerate energy under the special regime: the fixed feed in tariff or the market price plus a premium (Table 1) that is subject to a cap and floor on final prices for each type of facility. Special regime facilities are able to select the system they prefer; historically the market system has been more remunerative<sup>18</sup>

because it can adjust better to consumption and production, but with current low prices energy producers are switching to a fixed feed-in tariff.

The RD 2/2013 in February suspended the support mechanism for new

renewable energy

projects, while

there is no impact

for those projects

already registered

before the reform.

This remunerative

system has resulted

in a huge increase in

renewable investments and therefore an exponential increase in subsidies.

The premium is going to be further cut from the new Energy reform in order to fix the tariff deficit problem.

In order to reward the other technologies that could have suffered from lower remuneration, the Spanish Government set a capacity payment that would be paid for a full year to plants which remain on standby to cover peaks of demand or reduction in national wind generation<sup>19</sup>(Figure 23). This refers to hydro, coal, gas and fuel oil. Capacity payment amounts range between 1.22 Eur/MWh to 4.464 Eur/Mwh, but the new energy reform established that they will be 10 Eur/MWh p.a. and the duration payment will be extended from 10 to 20 years<sup>20</sup>.

Non-mainland generation is also a regulated business, where Endesa has a huge presence. This implies that the company receives a special

<sup>18</sup> See also Spain's electricity market design – a case study, Patrik Bennerstedt, Johan Grelsson, 2012

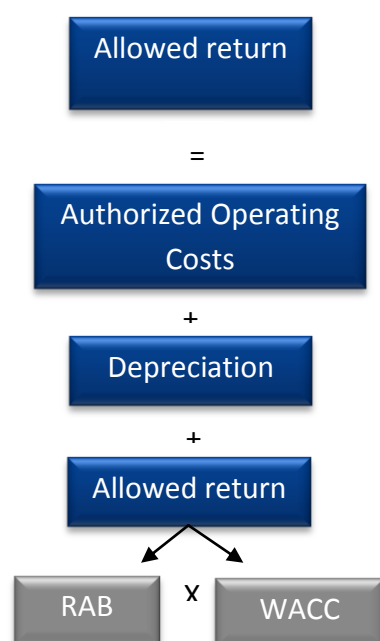
<sup>19</sup> CNE 2012

<sup>20</sup> Regarding other regulatory measures that were recently implemented please look at APPENDIX. We made our forecasts our energy mix also keeping in mind these adjustments.

remuneration from non-mainland activities costs under the Royal Decree 1747/2003 of 19 December 2003 (Figure 24). The latest RDL will create a specific standard for costs for the non-mainland systems, where the Spanish Government will cover half of it. We expect these costs to increase as the State has declared to take the costs on its budget.

**Before the reform in Spain there was a combination of model between transmission and distribution**

Figure 25 - RAB-based regulatory formula — typical revenue cap model  
Source: E&Y research



**Transmission and Distribution.** Transmission and distribution are regulated activities. They receive a remuneration established by the Government which is going to repay the cost entailed for the construction and operation of the distribution installations and incentivize new investments. The remuneration comes from the income obtained from the regulated tariffs. Within Europe, a wide variety of methodologies are used to calculate the level of remuneration for the network system. The allowed revenues are determined by the amount of the operating costs recognized by the authority to run regulated activities, by the financial remuneration of the assets<sup>21</sup> and the level of depreciation (Figure 25). The financial remuneration of the assets is the key points and depends on the Regulatory framework of each country (please see APPENDIX II for a summary remuneration methodologies used in various European countries).

Before the reform coming out in July 2013, in Spain there was a combination of models, meaning that the Transmission System (TS) was regulated with a RAB (Regulated asset base) model and the Distribution System (DS) was regulated with a reference network model (the remuneration scheme is regulated by RD 2819/1998 and RD 222/2008). The RAB model is based on the net asset value while the reference network model is customized for each distribution company.

What is going to happen with the new reform is that the Government wants to apply a new remuneration framework for the transmission and distribution, both based on a RAB model with a remuneration equal on Spanish 10 YR bond yield plus + 200 bps (from 2014, while 100 bps for the rest of 2013).

<sup>21</sup> Asset remuneration is dictated by two distinct elements: the RAB and the rate of return. First, regulators assess the RAB using the accounting value then apply a rate of return that may be pre- or post-tax, nominal or real.

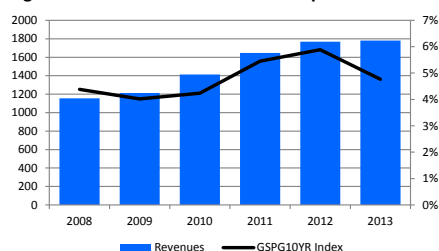
***We have carried out a comparative analysis which considers the determination of the RAB from the two main distribution networks: REE and REN***

In order to determine the RAB to be considered for the distribution activities of Endesa we have carried out a comparative analysis which considers the determination of the RAB (and consequently of the allowed revenues) from the two main distribution networks: REE and REN. What we want to highlight from the analysis of the transmission segment regulation is the definition of the asset base (see also APPENDIX II for the determination of the RAB among European Energy Markets). In Portugal, ERSE disclosed the value of the RAB remuneration each year and the companies provide the average RAB considered in the valuation (REN 2012). In Spain, there is not a value disclosed for the RAB in the electricity segment but according to the regulation the remuneration is based on the net value of the assets. The CNE has provided each year the remuneration for distribution and transmission companies<sup>22</sup>.

We have estimated the Regulatory asset base according to the level of remuneration and the net asset value for the transmission companies and therefore we used a net approach to estimate our RAB according to the following formula:

$$\text{RAB} = \text{Fixed Assets} = \text{Tangible Assets} + \text{Intangible Assets}$$

Figure 26: Red Electrica Revenues vs Spain 10 YR Gov



Source: Bloomberg, analyst estimates

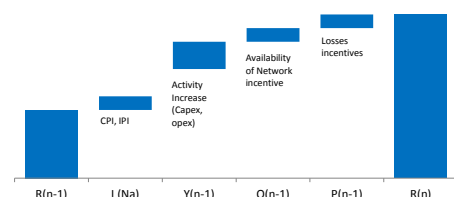
The rate of return for the regulated asset of REE has been the 10 year Spanish Government Bond + 375 bp with a regulatory period of 4 years, subject to yearly revision. Given the long term 200 bp to be added as a spread to the Government Bond, it is evident that the new rate of return is much lower (8.0% vs 6.5% p.a.). However, we believe the authority will set a higher net RAB for the upcoming years. Figure 26 shows the level of allowed revenues for REE and the yield of the Spanish 10 YR Gov bond since 2008.

***The remuneration scheme for the electricity distribution is based on a reference network model that considers each distributor's characteristic***

The remuneration scheme for the electricity distribution is not a RAB based model but is based on a reference network model that maps out the areas in Spain where each distributor is active (RD 222/2008). "CNE has developed a complete monitoring system for a real electrical distribution activity which allows the regulator to reduce information asymmetry with respect to DNOs

<sup>22</sup> based on the calculation disclosed in the "Spanish Energy Regulator's Annual Report To The European Commission, 22 July 2009"

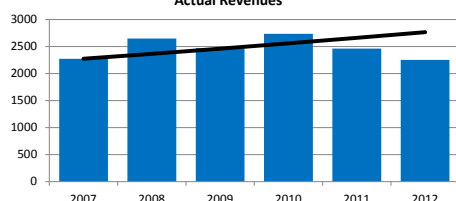
Figure 27: Methodology applied before RDL July 2013



Source: CNE

(distribution companies) and also prepare a complete remunerating procedure proposal for the activity which permits to consider each firm's characteristic and constraints<sup>23</sup>. The remuneration is based on each distributor's characteristics: location, feed voltage, demand for power and electricity. Please look at the APPENDIX II to understand the calculation of the remuneration formula for power distributors (Figure 27).

Figure 28: Allowed Revenues according to the methodology vs Actual Revenues

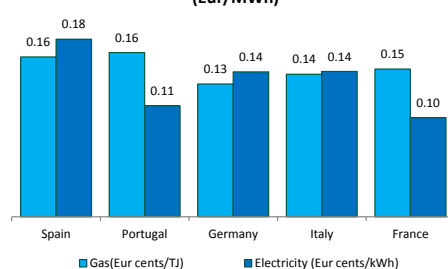


Sources: Analyst estimates

If no measures would have been taken to address the problem of the tariff deficit, the level of the remuneration would have been higher during the past years (Figure 28). We believe that the ongoing negotiation with the regulator might provide some upside to the current picture should support the sector's growth by capex improvements and efficiency plan.

### Spanish energy tariffs are already the highest among the European countries

Figure 29: Energy prices for household consumers (Eur/MWh)



Sources: Eurostat

**Supply.** Consumers pay the access tariff to recoup the variable and fixed costs from transmission and distribution activities. This costs also include payments for commercial management costs and extra costs due to the Special regime (cogeneration and renewable). The access tariffs were currently reviewed in February 2013, increasing by 7.6% in the liberalized segment and by 9.8% in the Last Resort segment. With the recent reform, access tariffs are expecting to further increase, reaching an historical high level. Spanish energy tariffs are already the highest among the European countries (Figure 29).

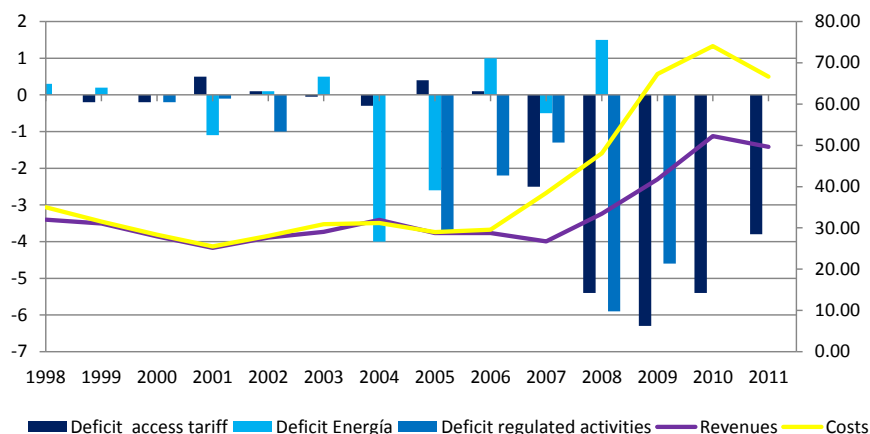
## THE TARIFF DEFICIT AND THE NEW ENERGY REFORM

### Consumer tariffs have not increased in line with the level of costs entailed by regulated activities

The remuneration scheme for the renewable energy and other factors that we are going to explain led to the creation of the noted tariff deficit. We have partially mentioned the new regulatory measures adopted in order to address the problem; the latest RD has been introduced in order to end it definitively. As in a normal business, in order to get positive margins, costs have to be reduced or revenues have to be increased. Figure 30 shows the historical evolution of the Tariff Deficit).

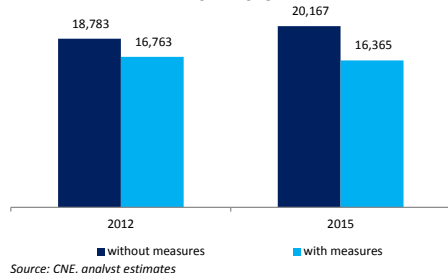
<sup>23</sup> CNE, Spanish energy regulator's annual report to the European commission, 2010

Figure 30: Tariff deficit evolution



Source: CNE, analyst estimates

Figure 31: Cost affected by the regulatory measures 2012-2015

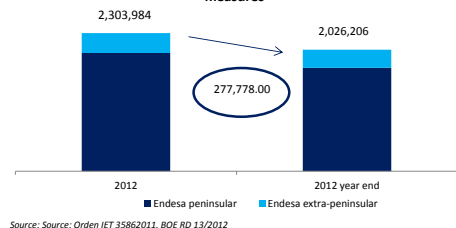


Consumer tariffs have not increased in line with the level of costs entailed by regulated activities. The costs that consumers in the liberalized segment should sustain comprehend access tariff, costs of energy and commercial costs and these depend from the supplier company. The Government's decision to not increase the regulated tariffs up to a level that could sufficiently cover production costs has also altered the level of competition in the country (such as the regulated tariffs stand at a lower level with respect to liberalized suppliers). Retail companies have struggled to compete with regulated tariffs and consumers have been encouraged to abandon the liberalized market. Therefore the Government has gradually modified the parameters to become a LR user.

Renewables' subsidies have also contributed to the creation of the tariff deficit. Access tariffs paid by consumers cover also the costs for renewable power generation. In January 2012 the Spanish government temporarily stopped accepting new FIT applications for projects beginning operation after January 2013 (Royal Decree 1/2012). Construction and operation of existing projects has not been affected<sup>24</sup>.

Utilities had found difficult to increase consumer tariffs, and instead have simply been accruing a deficit<sup>25</sup>. In APPENDIX III are summarized the main

Figure 32: Impact on Endesa's regulated activities after regulatory measures



<sup>24</sup> Please look at Figure 31 and 32 to see the impact on regulated costs of the sector if regulatory measures would not have been taken and the consequences on Endesa's results.

<sup>25</sup> CNE Annual Report 2012.

regulatory changes adopted by the Government in 2012. We highlight the reduction in distribution remuneration of euros 689 million in remuneration, 278 million of this reduction corresponding to Endesa<sup>26</sup>.

***FADE is a securitization vehicle created in order to eliminate the tariff deficit accumulation***

In order to eliminate the tariff deficit accumulation, in 2009 the Spanish parliament set up a securitization vehicle called FADE to finance the accumulated deficit<sup>27</sup>. The debt is essentially receivables and FADE's work is

**TABLE 2 - Amount of debt outstanding as of May 2013 (Eur)**

|                           |                         |             |
|---------------------------|-------------------------|-------------|
| Endesa                    | 794,652,948.70          | 44%         |
| Iberdrola                 | 629,995,076.04          | 35%         |
| Hidroelectrica Cantábrico | 109,407,885.24          | 6%          |
| E.ON.                     | 17,994,717.96           | 1%          |
| Gas Natural Fenosa        | 247,427,372.06          | 14%         |
| <b>Total</b>              | <b>1,799,478,000.00</b> | <b>100%</b> |

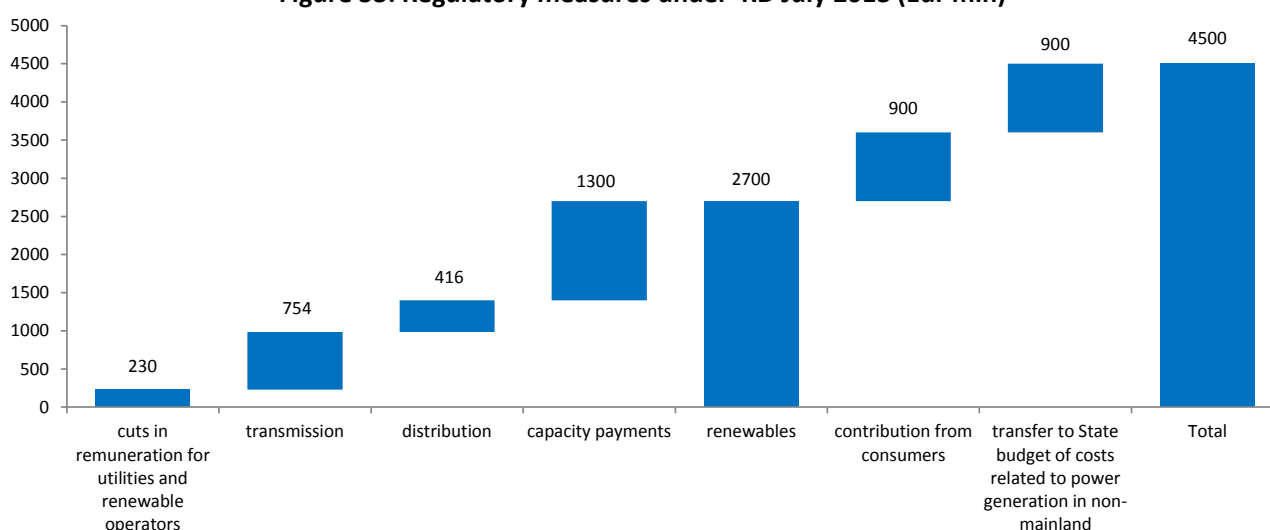
Source: FADE

to transfer those receivables by issuing bonds in the capital markets with an explicit guarantee by the Kingdom of Spain. Despite the difficulties stemming from the sovereign debt crisis in Europe the Spanish treasury successfully securitized Eur 8,5 billion of tariff in 2011, i.e. more than 50%

if the total outstanding tariff deficit as of December 2010. The current amount of outstanding debt is disclosed the Table 2.

The regulatory measures announced by the new Energy Reform in July 2013 are summarized in the Figure 33:

**Figure 33: Regulatory measures under RD July 2013 (Eur mln)**



Source: CNE, analyst estimates

<sup>26</sup> Orden IET 3586/2011

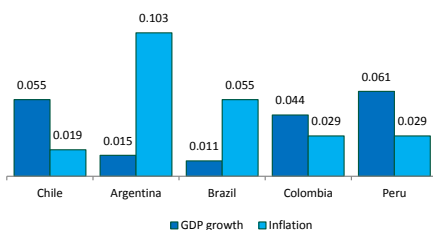
<sup>27</sup> The deficit have been composed by receivables and incumbent companies (Endesa, Iberdrola, Gas Natural) have financed most of it since 2000. In 2009 the Government has granted a credit line to receive amounts equivalent to the deficit with interests over a period of 15 years.

## THE LATIN AMERICAN MARKET

### MACROECONOMIC ENVIRONMENT

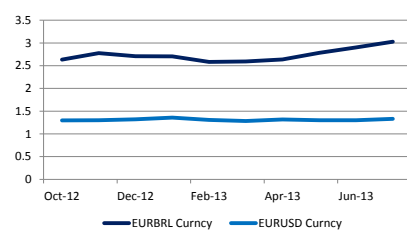
***Despite the lower growth experienced by Latin American economies, numbers are still positive***

Figure 34: Emerging market Inflation and GDP growth



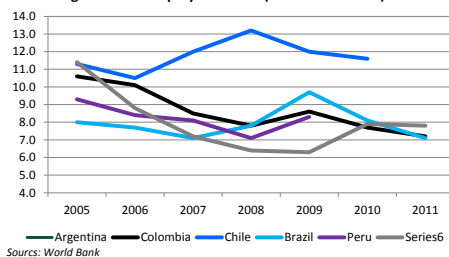
Source: IMF

Figure 35: Currency Evolution (Eur/USD, Eur/BRL)



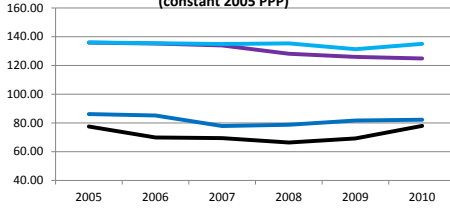
Sources: Bloomberg

Figure 36: Unemployment rate (% of labour force)



Sources: World Bank

Figure 37: Energy use (kg of oil equivalent) per 1.000 GDP (constant 2005 PPP)



Sources: World Bank

The exponential growth of the Latin American market has slowed in recent years due to the economic crisis that affected the developed economies. Despite the numbers being expected to be lower in the upcoming years, they are still positive (Figure 34). The outlook has been uncertain given sluggish growth in external demand and volatile material prices, on which Latin American economies remain over dependent<sup>28</sup>. To address these challenges, regional Governments have to increase productivity and cooperation in order to consolidate the long term growth. In particular in the energy system, many improvements have to be done to address the problem of the quality and the efficiency of the operations.

Regarding the fundamentals, what we have explained for the Iberian market regarding the drivers of energy prices is also valid here. However, in Latam, the determination of the price is different, as there is not a pool structure. Moreover, what influences the performance in these countries is the trend of the currencies. Overall, there has been an appreciation of the currencies with respect to the euro, except for the Brazilian real that has affected the results in the 1H of 2013 ( Please look at Figure 35 to see the movements of the EUR/USD and the EUR/BRL).

The Central Banks had to implement strict monetary measures in order to lower the high inflation rate, but the standards are not as specific as in EU<sup>29</sup>. The burden on the monetary policy is also added by the focus of the fiscal policy to be more supportive on the economic activity, especially in Brazil, as you can see from the strong decrease in the unemployment rate (Figure 36). Meeting global targets and decreasing public debt seems to have taken the backseat.

Energy consumption per capita in Latam is still quite low with respect to Western countries, but the level of growth has been considerably higher (Figure 37). Demand for electricity is expected to further increase in the

<sup>28</sup> "Latin American Economic Outlook 2013", OECD development centre, 2012

<sup>29</sup> The European target is to keep the inflation rate below 2%.

future and this is supported by the higher level of income per capita and increasing employment.

## MARKET STRUCTURE AND COMPETITION

***Despite the lower growth experienced by Latin American economies, numbers are still positive***

The Latin American Energy system is conducted in more or less deregulated markets, but authorities still exert their power in making decisions. Generators operate in a competitive market and sell electricity mainly through Power Purchase Agreements (they can also sell electricity in the spot market). This scheme generally provides low business risk and stable

and predictable cash flow generation. The main source of Energy is hydro, which accounts for almost 60% of the total generation mix according to IEA (Figure 38), while total renewables accounts for 67% on the total net generation mix. The level of electricity produced varies by country. Among the countries in which Endesa operates, Brazil represents the main hydropower generators with a net generation of 424.284 mn GWh, followed by Colombia with 47.672 GWh. In terms of

wind power, Brazil is still the Latin America's flagship with 2,177 mn KW, followed by Chile with 332 mn KW. Argentina, instead, is the highest generator of electricity by fossil fuels with 77.348 mn GWh, followed by Brazil with 60.125 mn GWh and Chile 33.864 mn GWh (Figure 39).

Depending on each country's electricity mix and market dynamics, different

risks will affect the energy prices. Countries like Brazil and Colombia would be less affected by changes in hydrocarbons prices but would be dependent on weather conditions, while countries with a high dependence on thermoelectric plants could suffer more from CO2 prices. However, the price is usually set through long term contract (generally for 2-3 years) where distributors and generators are engaged in a regulated process<sup>30</sup>.

Figure 38: Current Generation mix in Latam (Bn KWh)

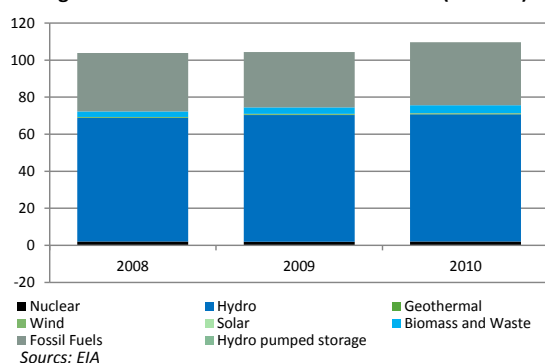
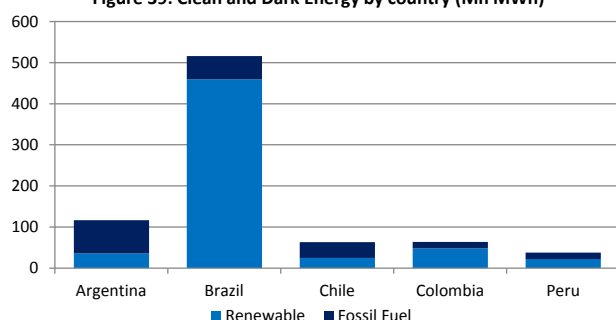


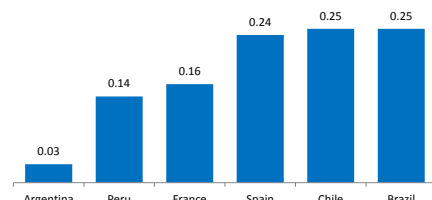
Figure 39: Clean and Dark Energy by country (Mn MWh)



<sup>30</sup> For further explanation regarding each country's dynamics please look at note 4.2 of Endesa's Legal Documentation in 2012 and "Latin American Power Market Dynamics and Risks", Fitch Ratings May 2012.

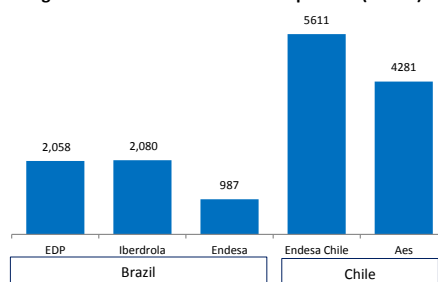
***The energy price is usually set through long term contract (generally for 2-3 years) where distributors and generators are engaged in a regulated process***

Figure 40: Energy prices for household consumers (USD cents/KWh)



Sources: Cammeso, Edenor, Fitch Ratings May 2012

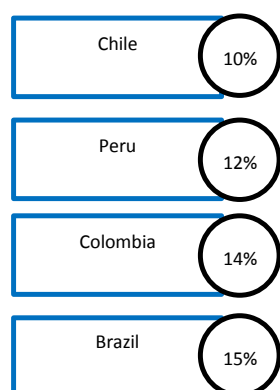
Figure 41: Latin America main competitors (2011A)



Source: Company's reported data, analyst

***Prevailing legislation requires obtaining at least 5% of the energy they sold to customers from renewable energy sources from 2010 to 2014***

Figure 42: Distribution Remuneration rate (Nominal after tax in USD)



Source: company reported data

In all countries there is an independent operator which coordinates the load dispatch centrally. This process aims at guarantee that supply meets demand at the minimum cost for the system and it based on audited variable thermal production costs. The marginal generation costs will determine the price of spot transactions.

As for the distribution segment, the price that is charged to final consumers depends on the price of the electricity purchased from generators and depends on the distribution volume and the inflation (Figure 40). The authority reviews tariffs on a regular basis. There is not a liberalized retail market as in Iberia. In Brazil the government has set several regulatory measures such as the reduction of taxes on electricity and the renewal of electricity concessions expiring between 2015 and 2017.

In the competitive environment, Brazil is the most challenging market. The main European competitors in Latam considered for our analysis are EDP and Iberdrola. They have a higher installed capacity (double that of Endesa), but their portfolio is not as diversified as that of Endesa in terms of geographic presence. In Chile, through Endesa Chile, Endesa is the first power generator, followed by AES (Figure 41).

## REGULATION

Countries' regulatory framework is considered to be transparent and stable. Regarding generation, regulatory authorities in each country have promoted the use of unconventional renewable energy<sup>31</sup>. Most of the legislations require to reach at least 10% of the energy sold from renewables by 2014. Most of the countries in which Endesa operates present a strong regulatory system, apart from Argentina where the fixed electricity tariffs for end users and the high dependence on government subsidies resulted in a structural tariff deficit<sup>32</sup>. Recently, in February, a new remuneration scheme was introduced for Argentinian distribution companies, based on RAB plus cost, and this is hopefully going to raise the lower performance of Endesa in this country. On the other hand, Brazil is considered to have a mature and stable regulatory framework which provide incentives and promote efficiencies. Going forward, the country will benefit from this strong industry framework,

<sup>31</sup> See article "Conventional & Unconventional Sources of Energy" by Lisa McQuerrey, Demand Media

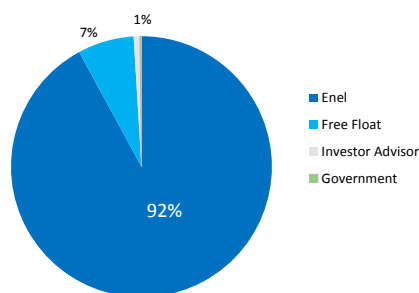
<sup>32</sup> See "Latin American Power Market Dynamics and Risks", Fitch Ratings May 2012.

which should continue attracting investments to strengthen its electric infrastructure. In particular we want to highlight the overall attractive profitability in the distribution business (Figure 42), where tariffs are adjusted for inflation and depend on consumer demand.

## COMPANY OVERVIEW

**Endesa is one of the main players in the Iberian utility sector with a strong position also in Latin America**

Figure 43: Ownership structure



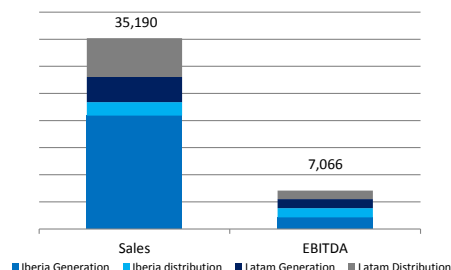
Source: Bloomberg

Endesa (Bloomberg ticker ELE SM) is one of the main players in the Iberian utility sector involved in electricity and gas operations. In the electricity sector the company operates in the generation, distribution and supply of electricity in both regulated and deregulated segments. In the natural gas sector it mainly operates in the sale of natural gas and integrated services to customers. The company has a strong position also in Latin America where it runs activities as private multinational enterprise in Chile, Colombia, Argentina, Brazil and Peru.

After a compelling competition between the Italian Enel (ENEL IM) and the Spanish Acciona (ANA SA) in 2009, the company is part of the Italian leading electricity operator which currently controls 92,063% of its shares (Figure 43). The company is listed on the Spanish stock market (Bolsa de Madrid) and is part of the Country's Index IBEX 35 with a weight of 0.58%.

Endesa has a total of 22.807 people employed: the current numbers show an increase in Latin America of 1.6% and a decrease of -2.1% in Spain, in line with our macroeconomic description. Figure 44 shows the results as of 2012 by segment and geographical area. The highest portion of sales comes from the Iberian generation segment. Our forecasts are explained in the chapter "Building Blocks Of Our Fair Value".

Figure 44: Sales and EBITDA by geographical area a (2012)



Source: Company reported data, figure do not considers corporate adjustments

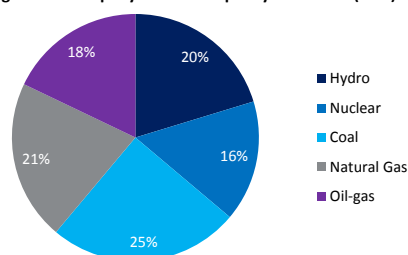
**Iberian operations represent almost 60% of the company's EBITDA**

## BUSINESS IN SPAIN AND PORTUGAL

As previously stated, Endesa operates in all segments of the utility supply chain both the regulated and deregulated market. The company owns all the segments among its supply chain except for the transmission line.

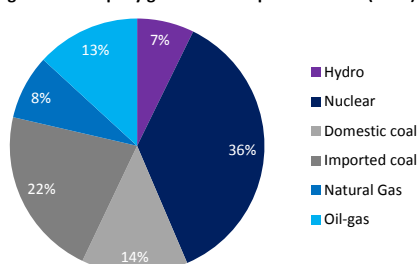
Iberian operations represent almost 60% of the company's EBITDA and reported a significant decrease according to the 1H 13 results. This is mainly due to the impact of the regulatory measures adopted by the Spanish

Figure 45: Company installed capacity as of 2012 (MW)



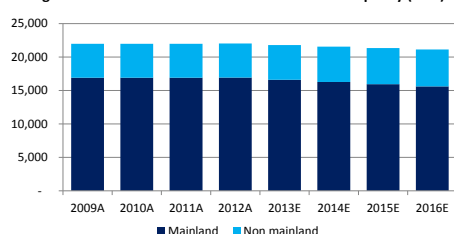
Source: Company reported data

Figure 46: Company generation output as of 2012 (GWh)



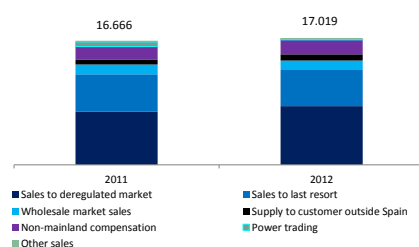
Source: Company reported data

Figure 47: Mainland and Non mainland Installed capacity (MW)



Source: Company reported data, analyst estimates

Figure 48: Electricity Sales in the liberalized market (Eur mln)



Source: Company's reported data,

Government, but a significant impact came also from the decrease in electricity demand and the impairment losses recognized with the closure of the Garoña nuclear plant (despite being partly offset by the capital gains from the sale of the stake in Medgaz).

The company's installed capacity at 2013 totaled 23,300 MW, 95% of which is based in Spain. Endesa does not own renewables subject to the Special Regime, which are managed by the Enel's group subsidiary Enel Green Power (installed capacity of 1,680 MW, mainly driven by wind plants for a value of 1,568 MW). In 2012, 36% of the company's output came from nuclear and 36% from coal (Figure 45 and 46).

Most of the hydro plants are based in Andalucía and Cataluña, and all of them are fully owned by Endesa. Nuclear plants, instead, are jointly participated except for the Ascó-Tarragona plant based in Cataluña. Recently the Garoña nuclear plant<sup>33</sup> has been stopped. Coal amounted for 25% of the company installed capacity in 2012. The level of coal imported increased sharply from 2011-2012 (34%) due to the favorable conditions in prices.

The installed capacity in non-mainland amounts to 23% of the Spanish installed capacity and the average compensation that the company receives from these activities is Eur 1.8 mln. In Figure 47 we show the actual installed capacity and the one we have assumed in our forecasts.

In the distribution business Endesa distributed 115,390 GWh of power in 20 provinces across nine self-governing regions. EBITDA from regulated distribution activities decreased by 9.6% to Euros 2,025 million<sup>34</sup> in 2012 due to the regulatory measures adopted. Endesa distributed 115,390 GWh in 2012, representing 43% of total demand in Spain according to the company's data.

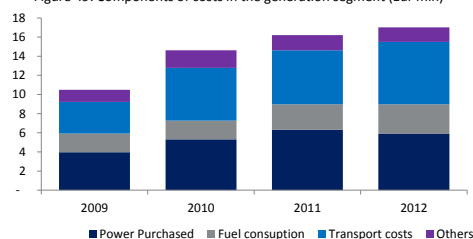
The number of customers in the deregulated market amount to 2.8 mln in 2012. The company sold a total of 77,122 GWh in 2012 in the liberalized segment, an increase of 0.9%. Revenues from sales in the Spanish deregulated market totalled Eur 7,881 million, up 9.9% from 2011 but the relevant number is the sales to customers outside Spain that rose 31% with

<sup>33</sup> participated by 50% by Endesa and Iberdrola, under the responsibility of the reactor operator Nuclenor

<sup>34</sup> Orden IET 3586/2011

**The largest portion of costs comes from transports and power purchase**

Figure 49: Components of costs in the generation segment (Eur mln)



Source: Company data

respect to 2011<sup>35</sup> (Portugal, Germany, Holland and Andorra). Sales from its last resort supplier amount to 25,644 GWh 11.0% less than in 2011. These sales generated revenues of Euros 4,841 million, 2.7% lower than 2011 due to the passage of customers to the deregulated market. .

In the gas sector Endesa operates in the distribution and supply. The main competitors in this area are Gas Natural Fenosa and Hidroelèctrica del Cantabrico. On December 2012 Endesa completed the purchase of 22,400 gas customers from Gas Natural which helped to increase its market share.

Figure 49 show the split in operating costs for the generation segment. We notice that the largest portion of costs comes from transports and power purchase.

In Portugal Endesa operates in the generation business and in the supply to deregulated market. The total installed capacity in Portugal is 1,095 MW (244 MW corresponds to Tejo Energía and 851 MW at Elecgas). It holds 38,9% stake in Tejo Energía which is the the company that owns the thermal plants Pego which produces 3,497 GWh and this represents 7.1% of Portugal's total electricity consumption. Endesa also own a 50% stake in Elecgas, which is is currently building a 851 MW combined cycle plant. In the deregulated market the company mainly sells to large customers but the way to get a strong market share is still far due to the large presence of EDP.

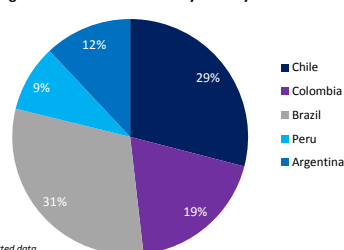
## BUSINESS IN LATIN AMERICA

Operations in Latin America concern generation, distribution and supply as well. Endesa has a diversified portfolio operating in Chile, Colombia, Brazil, Argentina and Peru (Figure50). The company has a fragmented presence, composed by a lot of companies more or less participated (Appendix IV).

Among the main players that operates under Endesa's control we have Enersis, controlled by 60.62%, which is the largest electricity company in Chile and has participation in companies engaged in the generation and distribution of electricity. Enersis controls Chilectra, which is a significant distribution company in Chile with 1.7 million customers, and Endesa Chile,

**The main player that operates under Endesa's control is Enersis, controlled by 60.62%,**

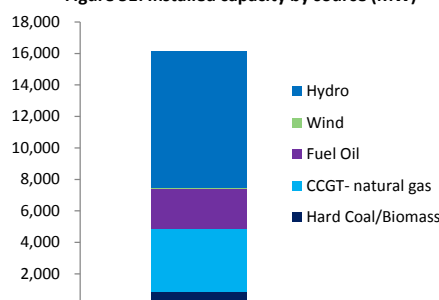
Figure 50: Sales breakdown by country



Source: Company's reported data.

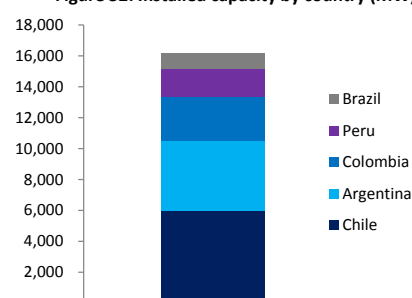
<sup>35</sup> "Endesa operates in several European wholesale markets to optimize its activities outside Spain and Portugal. Among other targets, this gives the Group the necessary power supply to service its contracts with European customers, to optimize management of its generation portfolio by exporting power via the Spain-France interconnection, and to balance out risk positions in those areas where it operates" Company's annual report 2012.

Figure 51: Installed capacity by source (MW)



Source: company reported data

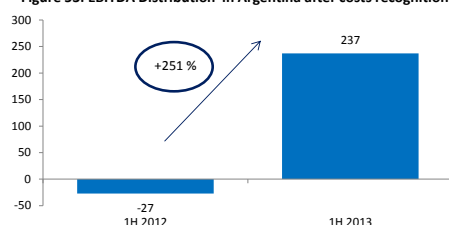
Figure 52: Installed capacity by country (MW)



Source: company reported data

**53% of the company's installed capacity is represented by hydro, but the company is diversifying its generation mix through thermal plant, One example is given by the Bocamina plant**

Figure 53: EBITDA Distribution in Argentina after costs recognition



Source: Company reported data

the main generator in Chile with many interests in other Chilean generators companies.

In 2012 the company reported a total EBITDA of 3.209 in Latam, slightly lower than 2011 mainly due to movement in currencies. Despite the fact that Endesa is mainly based in Chile, Brazil is the most important contributors to the company's results. This is attributed to the contribution from Endesa Brazil Holding Company, which holds 99,61% of the hydropower plant Cachoeira Dourada (665 MW) and the 100% of Fortaleza thermal power plant (322 MW). But the strongest support comes from the transmission business, through CIEN, which is responsible for the interconnection between Argentina and Brazil, with a connection capacity of 2,100 MW, which in turns controls Ampla and Coelce, with 99.64% and 58.87% respectively (they totally serve 6 million customers in Brazil).

Endesa has reduced its capex in the Iberian region, but has improved his investments in Latin America, especially in the generation segment.

Among the mentioned countries, the company has a total installed capacity of 16,158 MW, 53% represented by hydro. Coal has the minimum installed capacity among non-renewable energy, but it gave a 159% higher output YOY according to the 1H13 results<sup>36</sup>.

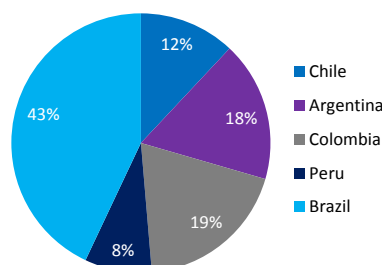
Chile is the flagship of Endesa in Latin America, where last year the company commissioned 20 MW from the Bocamina II plant to be generated by October 2013. Being highly dependent on weather conditions, the Chilean performance was highly affected by the drought of this first half of 2013; however the better energy mix partly offset this result.

Regarding the regulated sector, the main challenge was represented by Argentina. As we described before, the weak regulatory framework has led to a negative contribution to the EBITDA from this business. However, as regulation has improved, we can clearly see the difference on the 1H 13 results (Figure 53). We expect the new regulatory scheme to fairly remunerate the distribution business and to booster positive results in the future. We want to highlight the participation of the company in the project building interconnection between Argentina and Brazil, with a connection capacity of 2,100 MW, managed by CIEN. Furthermore, the company is

<sup>36</sup> Figure 51 and 52 shows the company's installed capacity by fuel and by country.

**The growth rate of the retail segment has experienced positive records in all countries**

Figure 54: Customer base in Latin america



Source: Company's reported data,

taking part in the SIEPAC project which involves the construction of 1800 km of grid and will distribute from 50 to 600 MW of electricity to Central American countries, giving the possibility to Endesa to expand also in these regions. In the supply segment, Endesa serves over 14 million customers in Latin America, mainly in the Brazilian region, thanks to his main partners Ampla and Coelce (Figure 54).

The growth rate of this segment has experienced positive records in all countries and is expected to keep this trend because of the increase in demand and income per capita. Overall, the company is well positioned being diversified and stable in all the regions. We see the next step to be the consolidation through the acquisition of minorities.

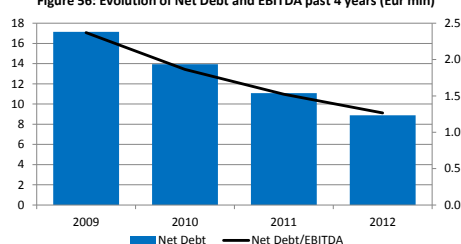
**The company is a good cash generator and year on year is reducing its long term debt**

Figure 55 - Endesa rating history

| Standard&Poors | Rating date |
|----------------|-------------|
| BBB            | 11-Jul-13   |
| BBB+           | 15-Oct-12   |
| BBB+           | 08-Mar-12   |
| A-             | 18-Jan-12   |
| A-             | 21-Sep-11   |
| BBB+           | 05-Apr-11   |
| BBB+           | 14-Dec-07   |
| A              | 06-Sep-05   |
| A              | 15-Jul-04   |

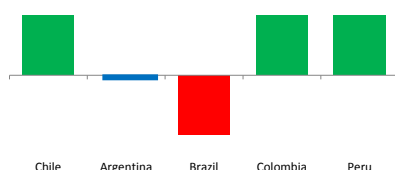
Company reported data

Figure 56: Evolution of Net Debt and EBITDA past 4 years (Eur mln)



Source: Company reported data

Figure 57: Average Forex impact by country



Sources: Company reported data, analyst estimates

## DEBT AND F/X EXPOSURE

Endesa is currently rated at BBB by S&P after the recent downgrade (Figure 55). The reason behind this downgrade is the negative outlook about the regulatory reform and the recovery of the tariff deficit: "these receivables weight on credit metrics and consequently, our assessment of the rated utilities financial risk profile"<sup>37</sup>. At 31 Dec 2012 Endesa's net financial debt stood at Euro 8,778 million, a reduction of 2,224 million compared to the previous year. The company is a good cash generator and year on year is reducing its long term debt (ND/EBITDA stood at euro 1.3 in 2012, Figure 56). In 2012, ENDESA transferred 2,674 million of tariff deficit collection rights to FADE.

In order to hedge the foreign exchange risk the company has subscribed a series of derivative contracts. The main impact from exchange rate movements has been shown in Brazil, with a loss of Eur 49 million, followed by Peru by Eur 16 million (Figure 57).

Another relevant figure in 2013 was the announcement by the company to not pay dividends for the results of 2012. Many rumors from markets participants referred to the possibility of Enel to buy back Endesa's minority stake and consolidate its position in Iberia. We do not believe that the parent will consider this scenario, given the small amount of minority rights and the

<sup>37</sup> S&P "How the Spanish Electricity Tariff Deficit and Political Uncertainties may affect the ratings on Spanish utilities", Jan 2012

challenging environment in Iberia especially from the regulated sector. We believe, instead, that retained earnings had been reinvested in the company to further support the expansion in Latin America. In our forecast, we consider a dividend yield of 4% for the 2013 net income.

TABLE 3 - Fair Value Estimate

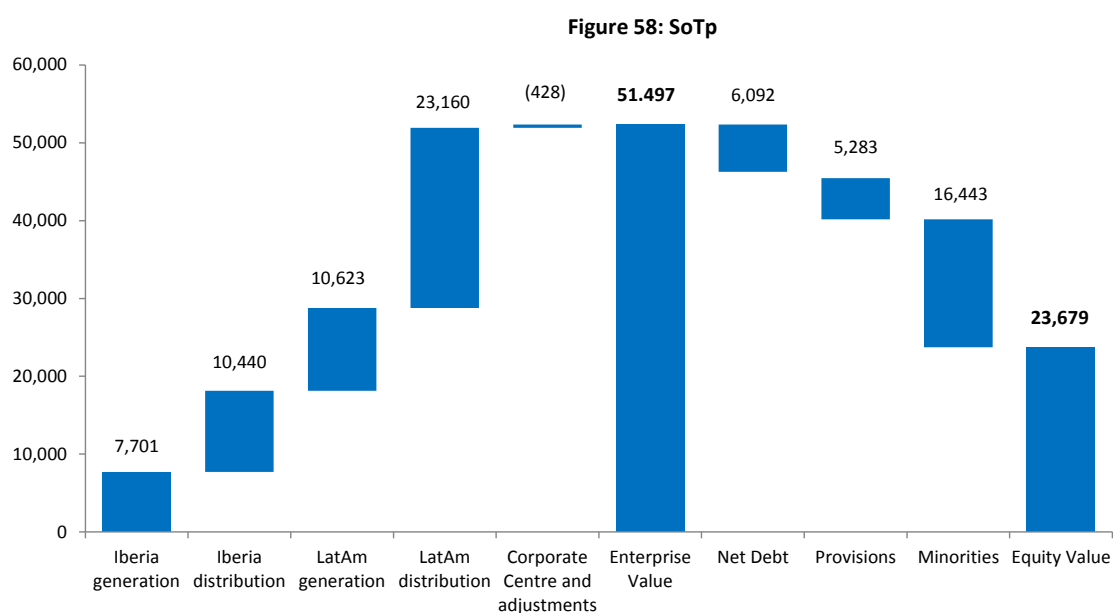
| DCF (values in Eur mln)           | Eur mln       |
|-----------------------------------|---------------|
| Price at 12-08-2013               | 18.37         |
| EUR m                             | EV            |
| Iberia generation                 | 7,701         |
| Iberia distribution               | 10,440        |
| LatAm generation                  | 10,623        |
| LatAm distribution                | 23,160        |
| Corporate Centre and adjustments  | (428)         |
| <b>Enterprise Value</b>           | <b>51,497</b> |
| Net Debt                          | 6,092         |
| Provisions                        | 5,283         |
| Minorities                        | 16,443        |
| Total Liabilities                 | 27,818        |
| <b>Equity Value</b>               | <b>23,679</b> |
| Shares (m)                        | 1,059         |
| <b>Equity Valuation per Share</b> | <b>22.36</b>  |
| potential downside                | 21.7%         |

## BUILDING BLOCKS OF OUR FAIR VALUE

### SUM OF THE PARTS

The company is valued using the SoTP approach which gives a fair value of Eur 22.36 per share (Table 3). Each segment has a reference forecast period of 2013-2020 and is valued separately through the DCF method in order to measure the specific value drivers of the business.

We decided to adopt the same organizational structure given by the company to fairly represent Endesa's operations. Segments are classified by geographical area (Iberia and Latin America) and then by business unit (Generation and Distribution). We also take into account the net present value of Corporate Adjustments, given their sizeable amount. According to our estimates, the regulated business in Latam accounts for the largest part of our EV, while the other segments give more or less the same contribution (see Figure 58).



Source: Analyst Estimates

## KEY ASSUMPTIONS

**Additional risk coming from the countries' environment is accounted through CDS spreads**

**TABLE 4 - CDS spread  
(value at 8/08/2013)**

|           |        |
|-----------|--------|
| Spain     | 2.19%  |
| Portugal  | 3.42%  |
| Argentina | 25.27% |
| Colombia  | 1.18%  |
| Brazil    | 1.51%  |
| Peru      | 1.19%  |
| Chile     | 0.72%  |

**Cost of capital.** We discounted our FCFs to the firm using a weighted average cost of capital (WACC). As for the cost of equity we rely on the CAPM model considering a market premium of 5% as disclosed by Damodaran for 2012. In order to incorporate the additional risk coming from the political and local environment, we calculate the spread between Credit Default Swaps of the respective geographical areas and our risk free CDS which is the German one<sup>38</sup> (Table 4).

The market index of reference is the STOXX Europe 600<sup>39</sup> while the risk free taken into consideration is the German 5 year Government Bond. The Beta used in the calculation is determined by the unlevered Betas coming from the industry peer group, and then re-levering them with the company's target capital structure<sup>40</sup>. The value of the Distribution Beta is very low given the lower dependence of the business from economic conditions. However, we see additional risk coming from the country, since the remuneration is externally defined by the Government.

To determine the cost of debt we have considered the current rating attributed by S&P's to Endesa of BBB and we have added the Reuter's corporate spread for utilities to the risk free rate<sup>41</sup>(please look at the APPENDIX V for the table). Therefore, we obtained a value of 3.37% (Table 5).

In order to define the target D/E we have analyzed the competitors' capital structure which have the same diversified business of Endesa, obtaining a value of 0.90<sup>42</sup>(Table 6a). In order to rely on our estimation, we have looked

**TABLE 5 - Market cost of debt**

|                          |       |
|--------------------------|-------|
| Risk free rate           | 2.25% |
| Spread associated to BBB | 1.12% |
| Cost of debt             | 3.37% |

**TABLE 6a - Comparable analysis to determine D/E and the Beta of the business**

| Company   | TICKER  | D/E         | Beta levered | Tax Rate | Beta unlevered |
|-----------|---------|-------------|--------------|----------|----------------|
| EDP       | EDP PL  | 1.46        | 2.102        | 30%      | 1.039          |
| ENEL      | ENEL IM | 0.73        | 1.032        | 31%      | 0.983          |
| IBERDROLA | IBE SM  | 0.83        | 1.764        | 30%      | 1.114          |
| EDF       | EDF FP  | 0.58        | 1.456        | 30%      | 1.035          |
| Average   |         | <b>0.90</b> |              |          | <b>1.043</b>   |

<sup>38</sup> The spread is added after calculating the cost of equity, therefore is not considered as systematic risk.

<sup>39</sup> Because it represents a reliable benchmark among European companies (large, mid and small cap).

<sup>40</sup> Beta for competitors is calculated running a regression between STOXX Europe 600 and monthly observations since 2006 for each company's competitor.

<sup>41</sup> [www.bondsonline.com](http://www.bondsonline.com). In this case we have used the Spanish 5YR bond as we believe that better reflects market expectations.

<sup>42</sup> We believe this will be the long term leverage of the company. All the companies mentioned have diversified operations and operate more or less in the same geographical area, therefore we believe the target capital structure will tend to be the same.

at Damodaran calculation on the cost of capital of Western European Utilities, which provide a level of 0.82 D/E for western utilities, close to our value. As for the terminal growth associated to each segments, we have estimated it considering inflation and GDP expectation by geographic area (real growth). We are more conservative on the emerging market given the high exposure to country risk and the sluggish macroeconomic growth (Table 6b).

**TABLE 6b - Comparable analysis to determine D/E and the Beta of the business**

| Division            | Risk free | ERP | Country premium (CDS Spread) | Beta (levered) | D/E | rd    | re     | wacc  | Terminal growth |
|---------------------|-----------|-----|------------------------------|----------------|-----|-------|--------|-------|-----------------|
| IBERIA GENERATION   | 2.25%     | 5%  | 0.024%                       | 1.254          | 0.9 | 3.37% | 9.55%  | 7.95% | 1.0%            |
| IBERIA DISTRIBUTION | 2.25%     | 5%  | 0.024%                       | 0.659          | 0.9 | 3.37% | 6.10%  | 5.28% | 1.0%            |
| LATAM GENERATION    | 2.25%     | 5%  | 0.670%                       | 1.372          | 0.9 | 3.37% | 10.88% | 9.69% | 2.0%            |
| LATAM DISTRIBUTION  | 2.25%     | 5%  | 0.670%                       | 0.721          | 0.9 | 3.37% | 7.10%  | 6.76% | 2.0%            |

***We believe that coal and carbon prices trend will not raise pool prices in the short run***

**Commodities and exchange rates.** We have based our power price model according to the variation on the key value drivers that affect Endesa's business. As we explained in the paragraph "Macroeconomics Environment: Iberia" already stated, we believe that coal and carbon prices will be determinant in setting the future. However, a significant contribution to the higher shrinkage in 2013 came also from the higher hydro output. We believe that coal and carbon prices trend will not last in the future as we expect higher coal consumption in the coming years. Therefore, we forecast an increase in the Iberian electricity pool prices of 6% by 2018<sup>43</sup>.

The currency risk is not included in the cost of capital but it is estimated through the Cash Flows, considering the main currencies that the company deals with. We have considered the Brazilian real and the US dollar as a proxy for the other countries. We are therefore valuating the business using Euros for all the segments at current prices and inflation incorporated, meaning that we are using nominal discount rates. Please look at Table 7 for all the assumptions.

<sup>43</sup> Prices are considered to be the contracted prices, i.e. the price at which Endesa will sell the electricity according to forward agreement and spot prices.

TABLE 7 - Commodities and currencies assumptions

| Fuel Prices (Source Bloomberg, OMEL, IMF, company report) |           | 2011     | 2012  | 2013E | 2014E | 2015E | 2016E | 2017E | 2018E |
|-----------------------------------------------------------|-----------|----------|-------|-------|-------|-------|-------|-------|-------|
| Commodity                                                 | Unit      |          |       |       |       |       |       |       |       |
| Coal                                                      | \$/t      | 130.1    | 103.2 | 95.0  | 92.3  | 90.2  | 93.0  | 93.0  | 100.0 |
| Carbon                                                    | EUR/t     | 13.9     | 7.6   | 4.3   | 4.3   | 4.4   | 5.0   | 5.5   | 6.0   |
| Iberia Electricity prices                                 | EUR/MWh   | 46.1     | 50.0  | 50.0  | 48.0  | 46.0  | 47.0  | 49.0  | 51.0  |
| Exchange Rates (IMF)                                      |           | Currency | 2011  | 2012  | 2013E | 2014E | 2015E | 2016E | 2017E |
|                                                           | Braslian  |          |       |       |       |       |       |       |       |
| Brazil                                                    | Real      | EUR/BRL  | 2.482 | 2.614 | 2.739 | 2.667 | 2.696 | 2.688 | 2.688 |
| US                                                        | US Dollar | EUR/USD  | 1.319 | 1.365 | 1.280 | 1.270 | 1.260 | 1.250 | 1.230 |

## BUSINESS OUTLOOK

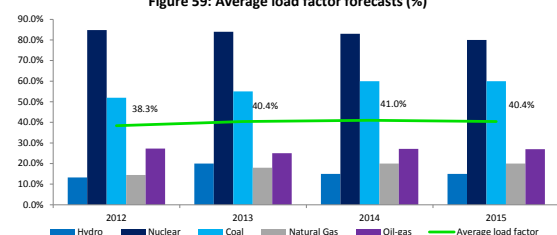
**Iberia Liberalized Business.** Our forecasts for the Iberian Generation segment do not seem too positive in the short run. We note that the segment's performance is strongly dependent on the level of pool prices. Our price model is based on the variation of the commodities price (coal and carbon according to the assumptions discussed earlier in this report). Our estimates for in the coming years are obtained by simply multiplying the output generated by the pool prices and applying the adjustments depending on the fuel source used. Endesa does not receive any premium from its power generation as it owns pumped storage hydro plants which are not considered special regime. However, we have considered capacity payments for hydro, coal, gas and fuel oil. We also note a strong impact on the business performance after the introduction of the general tax of 7% on generation, the 22% levy on hydro and the Tax on nuclear waste (Eur 2.190/KG heavy metal waste produced, see APPENDIX III).

Apart from big hydro plants, the future for renewables in Spain looks tough, given the pressure from the regulatory environment. Despite this, we believe the picture should improve after the solution of the tariff deficit. We see thermal and big hydro plants as the better choice in energy generation-

***The future for renewables looks tough, given the pressure from the regulatory environment***

hydro because of the high flexibility of the plants and coal because of the attractive low prices. Regarding nuclear, we believe that for now, the negotiations for the shut-down have only affected Garoña, but the solution for this plant could be applied to the remaining nuclear plants when they mature - most of them in the 2020s. As of now, we have forecasted a

Figure 59: Average load factor forecasts (%)



Source: Company data, Analyst estimates

***We expect an increase in pool prices in the future due to the higher level of emissions coming from higher coal consumption***

***We see a potential increase in energy exports outside Spain, that may represents a way out from the regulatory environment***

lower installed capacity of 10% (load factor still high at 80%, Figure 59). However, we do not expect this trend to be stable in the future: increasing thermal output means also increasing the level of emissions and therefore the level of CO2 prices. Raising emissions prices means increasing the pool prices. Therefore, we expect to see gradual increase in pool prices by 2018, which should benefit the company's revenues.

We considered also a negative impact coming from the resumption of the social bonus to be paid by utilities. CNE will determine it each year according to the clients and points of supply. We are estimating a Eur 200 mln social bonus payment per year and our calculations are based on the split in cost of RD 6/2009 (Endesa 44%, Iberdrola 35%, Gas Natural 13.75%, EDP 6%).

In non-mainland, the intention of the Government to cover half of the costs is positive news for Endesa. The company has also announced its intention

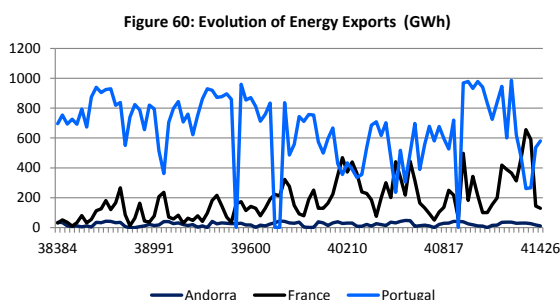
to expand its business in this area, mainly characterized by thermal plants. We forecast a higher load factor in non-mainland due to the favorable conditions for coal and the support offered by the State.

Apart from the domestic market, we also see a potential increase in energy exports outside Spain, given the positive record of 2012 (31% increase in exports), in particular with respect to France (Figure 60). This could be justified by the intention to "escape" from the pressure of the Spanish regulation.

We have also assumed an increase in the supply business. The company is working hard to gain customers that switch from the regulated market into the liberalized segment. Moreover, the RD requires a contribution of Eur 0.9 mln from customers that will be reflected in the tariffs. We see this resulting in an increase of 2% in the sales to the deregulated market in 2013.

**Iberia Distribution.** We have estimated the regulated asset base for Endesa according to the approach described above<sup>44</sup>. We calculated the net book value at 2012 and we have rolled over the forecasts according to the following formula:

$$Rab_t = Rab_{t-1} + Capex - Depreciation - Capital Grants - Asset Disposal$$



Sources: REE

<sup>44</sup> RAB = Fixed Assets = Tangible Assets + Intangible Assets

***The Spanish 10 YR Bond is not a valid reference to set the cost of capital, as the distribution system is not a risk free business and the added spread is not justifie.***

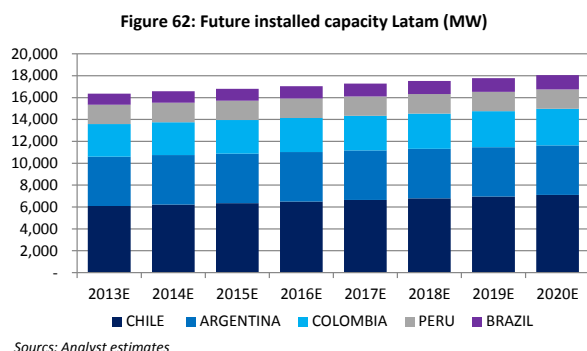
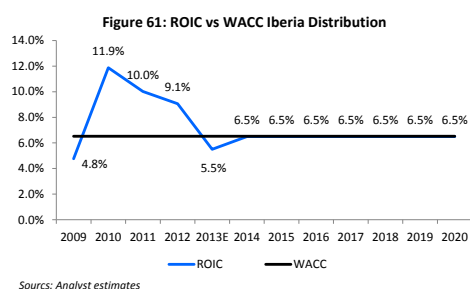
Under these numbers, net RAB as of YE2012 was around Eur12 mln. In our opinion, given the stock performance after the regulatory announcement, the market may be factoring in a higher RAB. We estimate Eur 400 mln cut in 2013, but this is also justified by the lower remuneration rate for 2013 (100bp over the 10YR Gov Bond).

We believe the Spanish 10 YR Bond is not a valid reference to set the cost of

TABLE 8 - RAB and Allowed Revenues Estimation

| Eur mln          | 2012A  | 2013E  | 2014E  | 2015E  | 2016E  | 2017E  | 2018E  | 2019E  | 2020E  |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Allowed Revenues | 2,513  | 2,106  | 2,301  | 2,381  | 2,471  | 2,572  | 2,686  | 2,813  | 2,880  |
| Operating costs  | (829)  | (846)  | (862)  | (880)  | (897)  | (915)  | (934)  | (952)  | (971)  |
| EBITDA           | 1,684  | 1,260  | 1,438  | 1,501  | 1,573  | 1,657  | 1,753  | 1,861  | 1,909  |
| Depreciation     | (558)  | (574)  | (594)  | (618)  | (646)  | (679)  | (716)  | (759)  | (807)  |
| EBIT             | 1,126  | 686    | 844    | 882    | 927    | 978    | 1,036  | 1,102  | 1,102  |
| Capex            | 919    | 1,000  | 1,100  | 1,210  | 1,331  | 1,464  | 1,611  | 1,772  | 807    |
| RAB              | 12,053 | 12,479 | 12,985 | 13,576 | 14,261 | 15,046 | 15,940 | 16,953 | 16,953 |

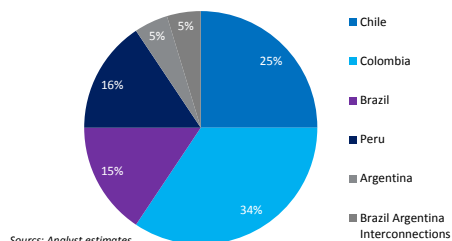
capital, as the distribution system is not a risk free business and the added spread is not justified. At the same time, the remuneration rate is very similar to the wacc that we have calculated for the segment (6.5% p.a. from the Government and 5.88% from our estimates, Figure 61). Therefore, we see the return reasonable for distribution activities and it will lead to an it will lead to an increase of 10% EBITDA in 2014. We have estimated a higher capex in this division in order to support the increase in the asset base. Regarding OPEX, our forecasts are based on the CPI (as the formula for the remuneration in distribution contains this factor). We are confident that the Government is going to negotiate the regulatory terms and consider a higher RAB. However, these measures are designed to reduce the tariff deficit, meaning that if the outcome is positive the company will benefit from a better financial position.



**Latam Generation.** Given the nature of the business in Latin America, which mainly works through Power Purchase Agreements, we believe that the revenues will depend on the level of output and tariffs. Given its good cash position we believe that the company could trigger a tender for its

***One step further to strengthen the position in Latam was made with the increase of Enersis' share capital***

Figure 63: EBITDA margin by 2019

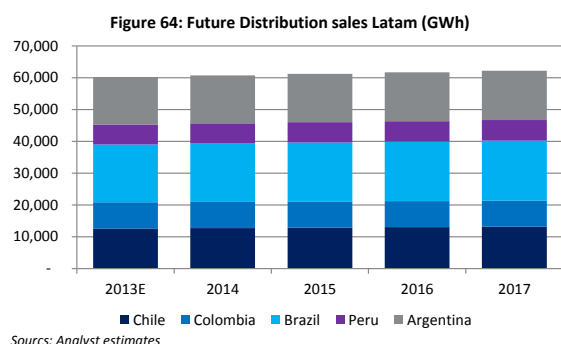


***We have reflected this strategy by increasing the installed capacity and capex and by decreasing the value of minorities in the future***

minorities soon, as was already announced by the parent company, Enel.

One step further in this direction was made with the increase of Enersis' share capital. The idea is to achieve a net income ownership of 78% in 2017, increase the customer base and develop new capacity (Figure 62 and 63). In our view, regarding the generation business, the company is going to stabilize its presence in Colombia and Chile. Chile is the flagship of its Latin American operations, where the company has recently improved its energy mix thanks to the Bocamina coal plant. Meanwhile, Colombia has been the best contributor to margins and represents the area where Endesa has the lowest participation (21.6% in Emgesa). In our model we have forecasted prices given the average tariff of the last two years and the trend of coal prices, but we have also adjusted them by inflation (please look at the paragraph "Regulation: Latam"). Moreover we have reflected this strategy by increasing the installed capacity and capex and by decreasing the value of minorities in the future. However, these areas are highly affected by the hydro output, which has led the average load factor for 2013 to drop to 2% in 2013. We have calculated the sales of each segment by converting for the relative exchange rate, in order to account for forex movements, as discussed in the "Sensitivity analysis" section.

**Latam Distribution.** This is the segment where most of the company's value



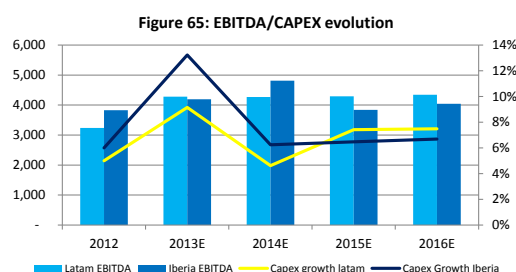
***We see the company gaining from the high remuneration rate and the solid presence of its partners***

comes from. We see the company gaining from the high remuneration rate and the solid presence of its partners. In particular, we see Brazil as the highest contributor thanks to the strong presence of its partners, Ampla and Coelce. The customer base in Brazil is the largest and has grown by 4% in the last two years. We also see the potential for an increase in the stake of Eldenor (Peru) where a strong increase in the

customer base was experienced as well (+5%). In Argentina, the Energy Secretary has recently recognized the payment to Empresa Distribuidora Sur, S.A. of Euros 344 million as compensation for the cost increases that were not been passed on end users from 2007 to February 2013. In our model, we have forecasted higher distribution volumes according to these assumptions (Figure 64). The tariffs applied vary according to the level of inflation (please see paragraph: "Regulation: Latin America"). As we stated

for the generation business, the variation in currencies according to our exchange rate assumptions will affect the segment's contribution to the EV.

We have built a **capex model** to determine the value of future assets considering the average life of the plants. This is in line with the assumptions discussed before, for which we assume a higher capex allocation in the Latin American region. The working capital is allocated according to the share of revenues in each division. We have assumed lower working capital for the Iberian distribution segment. The notional tax rate applied to the cost of capital and for the estimation of future cash flows is 30%.



Source: Analyst estimates

### ***We have valued minority interests according to Net Asset Value***

**TABLE 9 - Minorities**

(All minorities comes from LatAm)

|                    |        |
|--------------------|--------|
| Valuation LatAm    | 33,783 |
| Net debt LatAm     | 3,696  |
| Equity value latam | 30,087 |

|                   |       |
|-------------------|-------|
| Lat am Net profit | 1,376 |
| o.w. minorities   | 752   |

|                             |               |
|-----------------------------|---------------|
| <b>Implied Equity value</b> |               |
| <b>Minorities</b>           | <b>16,443</b> |

**Minorities.** We have valued minority interests according to Net Asset Value, considering the EV of the Latin American division and subtracting the value of debt associated with the division (we have used book value of debt as proxy). The share of the Equity attributable to minorities is derived by the ratio between the net income attributable to the company in Latam and that attributable to minorities (Table 9).

**Market value of debt.** In order to reflect the market expectations about the company's net debt position we have estimated the market value of debt considering the amount of debt outstanding and the value of the coupon bonds as shown in APPENDIX VI. For each coupon the company provides the maturity and the present value. Therefore we estimated the value of the debt to be Eur 9,454 mln.

## SENSITIVITY ANALYSIS

We have identified three main catalysts that can affect our fair value:

- The Iberian pool prices
- The different determination of the asset base
- The change in exchange rate forecast

Furthermore, we have made a sensitivity analysis on the discount rates and terminal growth changes.

We have analyzed the impact that changes in electricity prices could have on the performance of the generation business. As we said before, changes in pool prices will highly affect our fair value (Table 10). We have been conservative on our estimation therefore we made our analysis based on a

TABLE 10 - Iberia pool prices (% change)

|             | -10%        | 0%           | 10%          | 20%          |
|-------------|-------------|--------------|--------------|--------------|
| FV (Eur/sh) | <b>8.54</b> | <b>22.36</b> | <b>36.18</b> | <b>50,00</b> |

further reduction of 10% and the possibility of prices to increase by 10% or 20%. We can see that the value will significantly improve as soon as there is an improvement of the prices by 10%.

The second possible scenario is the different determination of the asset base. In our view the value of the average RAB that the Government is going to set will be higher, in order to give a remuneration closer to the level that distribution companies use to get before (Table 11). The sensitivity of the EV to changes in net RAB is based on these assumptions:

- Worst case: asset disposal minus 10% over 2013-2020
- Best case: some market participants consider that the new system incorporates an update related to the CPI evolution, because the formula for the calculation of the investment standard costs includes this update. In this case the value of the asset base would be higher.
- We have also estimated the case where the regulatory reform would not have made the cuts in the distribution business. However this would have left the problem of the Tariff Deficit unsolved, meaning higher working capital.

TABLE 11 - Variation of the RAB

| Eur mln                     | Asset disposal (-10% asset reduction) | Base case    | Updated factor | If things would not have changed |
|-----------------------------|---------------------------------------|--------------|----------------|----------------------------------|
| Average net RAB (2013-2020) | 13,526                                | 14,774       | 15,086         |                                  |
| EV distribution             | 10,290                                | 10,440       | 10,720         | 12,720                           |
| FV (Eur/sh)                 | <b>21.22</b>                          | <b>22.36</b> | <b>24.65</b>   | <b>25.32</b>                     |

The third driver that we have analyzed is the change in exchange rates. We have considered an appreciation/depreciation of the currencies of 5% and 10%. An increase in the value of the exchange rates means a depreciation of

TABLE 12 - Exchange rates (% change)

|    | 5%    | 10%   | 0%    | -10%  | -5%   |
|----|-------|-------|-------|-------|-------|
| FV | 21.45 | 20.36 | 22.36 | 25.44 | 23.97 |

the currencies against euro and this lead to a decrease in cash flows, i.e. on our fair value.

Finally, we can see from Table 13 how a variation of the cost of capital and the long term grow rate (keeping other constant) can significantly affect the company Fair Value. Lowering WACC by 2% means that the overall cost of capital will be very low, considering the already low value of the distribution business. On the other end, it is reasonable to assume a higher grow rate

TABLE 13 - Sensitivity to changes in WACC and Growth rate

|                    |     | Growth rate (% variation) |       |       |       |        |
|--------------------|-----|---------------------------|-------|-------|-------|--------|
|                    |     | -2%                       | -1%   | 0%    | 1%    | 2%     |
| wacc (% variation) | -2% | 25.37                     | 30.91 | 39.89 | 57.21 | 105.73 |
|                    | -1% | 20.27                     | 23.82 | 29.05 | 37.53 | 53.89  |
|                    | 0%  | 16.58                     | 19.01 | 22.36 | 27.3  | 35.32  |
|                    | 1%  | 13.78                     | 15.52 | 17.82 | 20.99 | 25.66  |
|                    | 2%  | 11.58                     | 12.87 | 14.52 | 16.7  | 19.7   |

(given the opportunities described in the previous chapters). Therefore, our Fair Value might potentially reach Eur 27.3 per share for 1% change in grow rate.

## MULTIPLES

According to Bloomberg consensus the company is trading at a significant discount vs peers, which in our view is not justified (APPENDIX VII). First of all the company has not been more penalized than its Iberian Peers by the new Energy Reform. Moreover we see the stable financial position and the potential growth in Latin America as important issues to support our BUY case.

The company has always been traded at a discount as Endesa's shareholders have been worried about what the parent company could do with its minority interests. Enel has often declared that they are not going to buy back the shares and, as we already mentioned, we do not believe this is going to happen in the short run. Therefore, after our analysis in which we highlight the positive fundamentals, we believe it is a good chance to buy the stock.

## APPENDIX

## APPENDIX I

| BALANCE SHEET (Eur m)               | 2012          | 2013E         | 2014E         | 2015E         | 2016E         | 2017E         | 2018E         | 2019E         | 2020E         |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Total fixed assets</b>           | <b>44,487</b> | <b>44,363</b> | <b>44,724</b> | <b>47,007</b> | <b>46,783</b> | <b>47,586</b> | <b>48,413</b> | <b>52,073</b> | <b>46,863</b> |
| Utility plant                       | 34,194        | 34,370        | 34,731        | 35,314        | 36,120        | 37,153        | 38,420        | 39,930        | 39,930        |
| Intangible asset                    | 6,344         | 6,144         | 6,244         | 6,744         | 7,144         | 7,244         | 6,144         | 7,194         | 5,984         |
| Others                              | 3,949         | 3,849         | 3,749         | 4,949         | 3,519         | 3,189         | 3,849         | 4,949         | 949           |
| <b>Total current assets</b>         | <b>14,291</b> | <b>15,325</b> | <b>15,726</b> | <b>15,540</b> | <b>15,668</b> | <b>15,789</b> | <b>15,778</b> | <b>14,681</b> | <b>14,127</b> |
| Inventories                         | 1,306         | 1,334         | 1,336         | 1,278         | 1,285         | 1,291         | 1,284         | 1,275         | 1,268         |
| Trade and other receivables         | 5,474         | 6,672         | 6,679         | 6,388         | 6,425         | 6,456         | 6,422         | 6,375         | 6,339         |
| Cash and cash equivalents           | 1,986         | 1,794         | 2,186         | 2,349         | 2,432         | 2,517         | 2,547         | 1,505         | 996           |
| Others                              | 5,525         | 5,524         | 5,525         | 5,525         | 5,525         | 5,525         | 5,525         | 5,525         | 5,525         |
| <b>TOTAL ASSETS</b>                 | <b>58,778</b> | <b>59,687</b> | <b>60,450</b> | <b>62,547</b> | <b>62,451</b> | <b>63,375</b> | <b>64,191</b> | <b>66,753</b> | <b>60,990</b> |
| EQUITY AND LIABILITIES (Eur m)      | 2012          | 2013E         | 2014E         | 2015E         | 2016E         | 2017E         | 2018E         | 2019E         | 2020E         |
| <b>Total equity</b>                 | <b>26,369</b> | <b>28,129</b> | <b>29,793</b> | <b>31,009</b> | <b>32,219</b> | <b>33,665</b> | <b>35,092</b> | <b>34,879</b> | <b>34,381</b> |
| <b>Non-current liabilities</b>      | <b>21,644</b> | <b>20,246</b> | <b>19,233</b> | <b>20,051</b> | <b>18,330</b> | <b>17,663</b> | <b>18,203</b> | <b>19,997</b> | <b>15,997</b> |
| Long term financial debt            | 9,886         | 8,588         | 7,675         | 7,293         | 7,002         | 6,665         | 6,545         | 7,239         | 7,239         |
| Others                              | 11,758        | 11,658        | 11,558        | 12,758        | 11,328        | 10,998        | 11,658        | 12,758        | 8,758         |
| <b>Current liabilities</b>          | <b>10,765</b> | <b>11,312</b> | <b>11,424</b> | <b>11,487</b> | <b>11,902</b> | <b>12,047</b> | <b>10,896</b> | <b>11,877</b> | <b>10,612</b> |
| Short term financial debt           | 1,876         | 1,305         | 1,405         | 1,905         | 2,264         | 2,364         | 1,264         | 2,314         | 1,104         |
| Trade and other payables            | 8,889         | 10,006        | 10,019        | 9,582         | 9,638         | 9,684         | 9,633         | 9,563         | 9,508         |
| <b>TOTAL EQUITY AND LIABILITIES</b> | <b>58,778</b> | <b>59,687</b> | <b>60,450</b> | <b>62,547</b> | <b>62,451</b> | <b>63,375</b> | <b>64,191</b> | <b>66,753</b> | <b>60,990</b> |

| P&L (Eur mln)                                  |               |               |               |               |               |               |               |               |               |
|------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                                | 2012          | 2013E         | 2014E         | 2015E         | 2016E         | 2017E         | 2018E         | 2019E         | 2020E         |
| <b>Revenue</b>                                 | <b>33,933</b> | <b>33,355</b> | <b>33,396</b> | <b>31,939</b> | <b>32,127</b> | <b>32,661</b> | <b>33,223</b> | <b>33,325</b> | <b>33,463</b> |
| Gross margin                                   | 10,828        | 10,538        | 11,181        | 10,162        | 10,431        | 11,047        | 11,505        | 11,234        | 10,986        |
| <b>EBITDA</b>                                  | <b>7,005</b>  | <b>7,135</b>  | <b>8,155</b>  | <b>7,344</b>  | <b>7,719</b>  | <b>8,443</b>  | <b>8,995</b>  | <b>8,815</b>  | <b>8,592</b>  |
| Margin                                         | 21%           | 21%           | 24%           | 23%           | 24%           | 26%           | 27%           | 26%           | 26%           |
| Depreciation&Amortization                      | (2,587)       | (2,724)       | (2,698)       | (2,688)       | (2,695)       | (2,720)       | (2,761)       | (2,818)       | (2,894)       |
| <b>EBIT</b>                                    | <b>4,418</b>  | <b>4,411</b>  | <b>5,456</b>  | <b>4,655</b>  | <b>5,024</b>  | <b>5,723</b>  | <b>6,235</b>  | <b>5,996</b>  | <b>5,698</b>  |
| income before taxes                            | 3,824         | 3,817         | 4,862         | 4,061         | 4,430         | 5,129         | 5,641         | 5,402         | 5,104         |
| income tax                                     | (1,053)       | (1,145)       | (1,459)       | (1,218)       | (1,329)       | (1,539)       | (1,692)       | (1,621)       | (1,531)       |
| <b>Net Income</b>                              | <b>2,771</b>  | <b>2,672</b>  | <b>3,404</b>  | <b>2,843</b>  | <b>3,101</b>  | <b>3,591</b>  | <b>3,949</b>  | <b>3,782</b>  | <b>3,573</b>  |
| Attributables to holders of the parent company | 2,034         | 2,138         | 2,723         | 2,274         | 2,481         | 2,872         | 3,159         | 3,025         | 2,858         |
| minorities                                     | 737           | 534.4         | 680.7         | 568.6         | 620.1         | 718.1         | 789.7         | 756.3         | 714.5         |

| Divisional Cash Flow Statement |              |              |              |              |              |              |              |              |              |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                | 2012         | 2013E        | 2014E        | 2015E        | 2016E        | 2017E        | 2018E        | 2019E        | 2020E        |
| <b>EBITDA</b>                  | <b>7,005</b> | <b>7,135</b> | <b>8,155</b> | <b>7,344</b> | <b>7,719</b> | <b>8,443</b> | <b>8,995</b> | <b>8,815</b> | <b>8,592</b> |
| Taxes Paid                     | (1,053)      | (1,145)      | (1,459)      | (1,218)      | (1,329)      | (1,539)      | (1,692)      | (1,621)      | (1,531)      |
| Interest Paid / Received       | (641)        | (529)        | (184)        | (97)         | (63)         | (52)         | (41)         | (27)         | (10)         |
| Change in Working Capital      | 613          | (108)        | 2            | (87)         | 11           | 32           | 34           | 6            | 8            |
| Associate & Minority Dividends | (737)        | (534)        | (681)        | (569)        | (620)        | (718)        | (790)        | (756)        | (715)        |
| <b>Operating Cash Flow</b>     | <b>5,234</b> | <b>4,754</b> | <b>5,424</b> | <b>4,875</b> | <b>5,187</b> | <b>5,624</b> | <b>5,953</b> | <b>5,850</b> | <b>5,760</b> |
| Capital Expenditure            | (2,604)      | (2,900)      | (3,060)      | (3,271)      | (3,501)      | (3,753)      | (4,028)      | (4,328)      | (2,894)      |
| Free Cash Flow                 | 2,630        | 1,854        | 2,364        | 1,604        | 1,686        | 1,871        | 1,925        | 1,522        | 2,866        |
| Dividend Paid to Shareholders  | (642)        | 0            | (1,059)      | (1,059)      | (1,059)      | (1,059)      | (1,059)      | (1,059)      | (1,059)      |
| <b>Net Cash Flow</b>           | <b>1,988</b> | <b>1,854</b> | <b>1,305</b> | <b>545</b>   | <b>627</b>   | <b>812</b>   | <b>866</b>   | <b>463</b>   | <b>1,807</b> |

## APPENDIX II

| Remuneration system among European countries |                                                                                   |                                                                               |                                                                                         |
|----------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                                              | Electricity distribution                                                          | Electricity transmission                                                      | Gas distribution                                                                        |
| <b>France</b>                                |                                                                                   |                                                                               |                                                                                         |
| Regulator                                    | Commission de Régulation de l'Energie                                             | Commission de Régulation de l'Energie                                         | Commission de Régulation de l'Energie                                                   |
| Regulatory period                            | 4 (2009-2012)                                                                     | 4 (2009-2012)                                                                 | 4 (2012-2016)                                                                           |
| Regulatory Asset Base (RAB)                  | RAB= Net asset value at opening of the period + new investment – depreciation     | RAB= Net asset value at opening of the period + new investment – depreciation | RAB= Net asset value at opening of the period reinflated+ new investment – depreciation |
| Allowed return                               | 7.25% nominal pre-tax, applied to the RAB                                         | 7.25% nominal pre-tax, applied to the RAB                                     | 6.5% nominal pre-tax, applied to the RAB                                                |
| <b>Germany</b>                               |                                                                                   |                                                                               |                                                                                         |
| Regulator                                    | Bundesnetzagentur                                                                 | Bundesnetzagentur                                                             | Bundesnetzagentur                                                                       |
| Regulatory period                            | 5 (2009-2013)                                                                     | 5 (2009-2013)                                                                 | 5 (2009-2013)                                                                           |
| Regulatory Asset Base (RAB)                  | N/A                                                                               | N/A                                                                           | N/A                                                                                     |
| Allowed return                               | 7.56% for assets older than 2006 and 9.59% for assets after 2006                  | 7.56% for assets older than 2006 and 9.59% for assets after 2006              | 7.56% for assets older than 2006 and 9.59% for assets after 2006                        |
| <b>Italy</b>                                 |                                                                                   |                                                                               |                                                                                         |
| Regulator                                    | Regulatory Authority for electricity and gas                                      | Regulatory Authority for electricity and gas                                  | Regulatory Authority for electricity and gas                                            |
| Regulatory period                            | 4 (2012-2015)                                                                     | 4 (2012-2015)                                                                 | 4 (2012-2015)                                                                           |
| Regulatory Asset Base (RAB)                  | No amount established, component defined by the regulator                         | N/A                                                                           | Net Investment for distribution and measurement activities                              |
| Allowed return                               | 7.6% wacc plus an addition ranging of around 1.5% for investments with incentives | 7.6% plus 1.5%                                                                | 8% over net investments                                                                 |
| <b>Spain</b>                                 |                                                                                   |                                                                               |                                                                                         |
| Regulator                                    | CNE and Ministry of Industry                                                      | CNE and Ministry of Industry                                                  | CNE and Ministry of Industry                                                            |
| Regulatory period                            | 4                                                                                 | 4                                                                             | 5                                                                                       |
| Regulatory Asset Base (RAB)                  | Not public                                                                        | Net Asset Value                                                               | Net Asset Value                                                                         |
| Allowed return                               | Not public                                                                        | Not public                                                                    | Not public                                                                              |

| Assets included in the RAB by EU Regulators |                            |                            |
|---------------------------------------------|----------------------------|----------------------------|
|                                             | Gas Network                | Electricity Network        |
| Austria                                     | Fixed Assets               | -                          |
| Belgium                                     | Fixed Assets + Working Cap | Fixed Assets + Working Cap |
| Finland                                     | Fixed Assets               | Fixed Assets               |
| France                                      | Fixed Assets               | Fixed Assets + Working Cap |
| Germany                                     | Fixed Assets + Working Cap | Fixed Assets               |
| Ireland                                     | Fixed Assets               | Fixed Assets               |
| Italy                                       | Fixed Assets + Working Cap | -                          |
| Netherlands                                 | Fixed Assets               | -                          |
| Spain                                       | Fixed Assets               | -                          |
| UK                                          | Fixed Assets               | Fixed Assets               |

Source: Overview of European Regulatory Framework in Energy Transport, International Energy Regulators Network, 2011

The transmission system is remunerated according to the RD 2819/1998 by the following formula:

$$R_{it} = R_{it} + I_{it} + N_{it}$$

Where  $R_{it}$  is the cost corresponding to the equipment and annually revalued by a  $CPI - X$  factor, where  $CPI$  stands for the consumer price index and  $X=0,6\%$ ;  $I_{it}$  is the cumulative cost of equipment installed after 1998 and revalued at the same  $CPI - X$  factor;  $N_{it}$  is an incentive revenue paid to firm in order to reward the availability of its equipment.

For the transmission network, the remuneration regime considers the installations coming into operation before 1998, the ones coming into operations from 1998-2007 and the assets acquired after 2008.

Installations coming into operation in the period from 1998-2007 are regulated under the RD 325/2008 remunerated individually and the remuneration is defined as follow:

$$R_{in} = Cl_{in} + COM_{in}$$

Where  $Cl_{in}$  is the investment cost of the transmission facility and represents the net asset value of the transmission facility;  $COM_{in}$  is the Operation and Maintenance cost of the facility.

According to RD 222/2008 the formula to calculate the remuneration for distribution activities is the following:

$$R_{base}^i = Cl_{base}^i + COM_{base}^i + OCD_{base}^i$$

Where  $Cl$  is the remuneration for investments,  $COM$  is the remuneration for O&M and  $OCD$  are other costs for the operation of distribution activities. The remuneration rate for this activities is not disclosed, the annual remuneration is updated according to following formula:

$$R_0^i = R_{base}^i * (1 + IA_0)$$

$$\text{where } IA_n = 0.2 * (CPI_n - 1 - x) + 0.8 * (IPI_n - 1 - y)$$

#### Values disclosed in RD 222/2008

|                                |           |
|--------------------------------|-----------|
| Iberdrola                      | 1,297,585 |
| Union Fenosa Distribution      | 603,888   |
| Hidrocántabrico                | 123,142   |
| Electra De Viesgo distribution | 116,750   |
| Endesa (mainland)              | 1,429,484 |
| Endesa (non-mainland)          | 283,382   |
| FEVASA                         | 154       |
| SOLANAR                        | 212       |
| Tot                            | 3,854,597 |

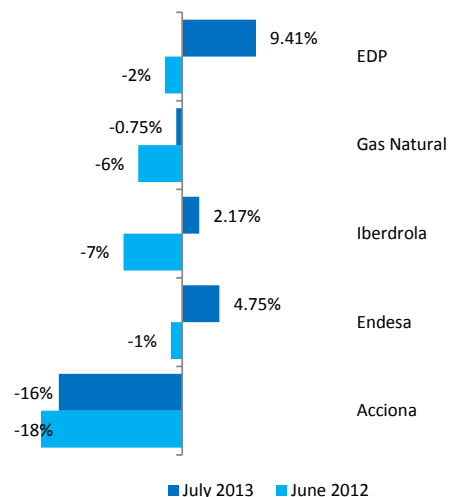
$R_{base}^i$  is the company remuneration level established by the ministry of industry,  $IA_0$  is an index to update the calculations that is based on the Consumer Price Index and the Industry Price Index<sup>1</sup>. The table showed the values disclosed by the Royal Decree from which the Government determines the value of remuneration for each year. This regulatory system was established for the period 2009-2012.

## APPENDIX III

## Main regulatory changes in 2012

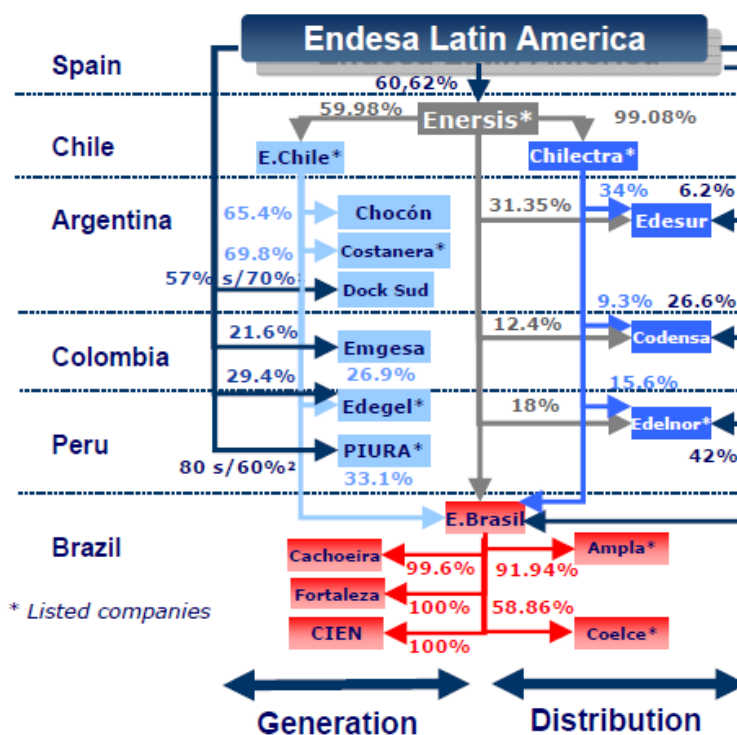
|             |                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RDL 13/2012 | 10% reduction in domestic coal support<br>Reduction of capacity payments                                                                                                                                                                                                                                                                                                              |
| RDL 20/2012 | Social bonus transferred to state budget<br>Reduction of transport revenues<br>Reduction of non-mainland generation revenues                                                                                                                                                                                                                                                          |
| RDL15/2012  | Regional taxes to be paid by consumers (previously paid by utilities)<br>Levy on hydro generation (22% of revenues)<br>Tax on nuclear waste (Eur 2.190/KG heavy metal waste produced)<br>7% tax in all generation<br>Green cent on natural gas (Eur 2.79 cents/m3)<br>Green cent on coal (Eur 14.97/ton)<br>Green cent on gasoil used in electricity generation (Eur 307/1000 litres) |

## Iberian Utilities performance after RD



Source: Bloomberg, Analyst estimates

## APPENDIX IV



\* Listed companies

Source: Endesa Analyst Day May 2011

## APPENDIX V

| Reuters Corporate Spreads for Utilities (bp) |      |      |      |      |      |       |       |
|----------------------------------------------|------|------|------|------|------|-------|-------|
| Rating                                       | 1 yr | 2 yr | 3 yr | 5 yr | 7 yr | 10 yr | 30 yr |
| Aaa/AAA                                      | 8    | 11   | 13   | 20   | 26   | 28    | 37    |
| Aa1/AA+                                      | 9    | 12   | 14   | 21   | 29   | 30    | 47    |
| Aa2/AA                                       | 11   | 15   | 16   | 24   | 32   | 38    | 57    |
| Aa3/AA-                                      | 11   | 19   | 21   | 28   | 39   | 50    | 67    |
| A1/A+                                        | 16   | 22   | 24   | 38   | 47   | 67    | 68    |
| A2/A                                         | 19   | 25   | 25   | 44   | 51   | 69    | 79    |
| A3/A-                                        | 24   | 32   | 37   | 50   | 64   | 72    | 97    |
| Baa1/BBB+                                    | 36   | 49   | 56   | 73   | 79   | 87    | 107   |
| Baa2/BBB                                     | 51   | 60   | 70   | 80   | 90   | 112   | 127   |
| Baa3/BBB-                                    | 56   | 78   | 80   | 90   | 101  | 128   | 132   |
| Ba1/BB+                                      | 240  | 312  | 295  | 227  | 170  | 200   | 159   |
| Ba2/BB                                       | 250  | 275  | 300  | 230  | 130  | 145   | 192   |
| Ba3/BB-                                      | 230  | 255  | 275  | 250  | 145  | 190   | 245   |
| B1/B+                                        | 310  | 350  | 455  | 360  | 245  | 300   | 225   |
| B2/B                                         | 415  | 440  | 505  | 410  | 245  | 370   | 350   |
| B3/B-                                        | 490  | 520  | 610  | 510  | 380  | 445   | 520   |
| Caa/CCC                                      | 580  | 650  | 755  | 710  | 495  | 520   | 620   |

## APPENDIX VI

| Market Value of outstanding debt             | Present Value | Maturity |      |       |       |                  |
|----------------------------------------------|---------------|----------|------|-------|-------|------------------|
|                                              |               | 2014     | 2015 | 2016  | 2017  | subsequent years |
| <b>Bonds and other marketable securities</b> |               |          |      |       |       |                  |
| fixed                                        | <b>2,087</b>  | 454      | 239  | 346   | 15    | 1,033            |
| floating rate                                | <b>3,176</b>  | 32       | 180  | 1,467 | 409   | 1,088            |
| <b>Total</b>                                 | <b>5,263</b>  | 486      | 419  | 1,813 | 424   | 2,121            |
| <b>Bank borrowings</b>                       |               |          |      |       |       |                  |
| fixed                                        | <b>111</b>    | 12       | 11   | 11    | 23    | 54               |
| floating rate                                | <b>2,488</b>  | 355      | 213  | 403   | 1,159 | 358              |
| <b>Total</b>                                 | <b>2,599</b>  | 367      | 224  | 414   | 1,182 | 412              |
| <b>Other borrowings</b>                      |               |          |      |       |       |                  |
| fixed                                        | <b>522</b>    | 53       | 33   | 31    | 31    | 374              |
| floating rate                                | <b>919</b>    | 61       | 34   | 784   | 32    | 8                |
| <b>Total</b>                                 | <b>1,441</b>  | 114      | 67   | 815   | 63    | 382              |
| <b>TOTAL</b>                                 | <b>9,303</b>  | 967      | 710  | 3,042 | 1,669 | 2,915            |

Source: Company reported data

## APPENDIX VII

TABLE 14 - MULTIPLES (Bloomberg)

|                           | Bloomberg | Last  | Price performance (%) |       | EV/EBITDA |       | P/E   |       | EPS   |       |
|---------------------------|-----------|-------|-----------------------|-------|-----------|-------|-------|-------|-------|-------|
| Company                   | Ticker    | Price | 1M                    | 3M    | 2013E     | 2014E | 2013E | 2014E | 2013y | 2014y |
| ENDESA                    | ELE SM    | 16.00 | -5%                   | -3%   | 4.0       | 3.7   | 9.3   | 8.9   | 1.72  | 1.81  |
| EDP                       | EDP PL    | 2.41  | -4%                   | -2%   | 8.2       | 7.7   | 9.1   | 8.8   | 0.26  | 0.28  |
| RED ELECTRICA             | REE SM    | 38.34 | -9%                   | 0%    | 7.6       | 7.4   | 10    | 9.7   | 3.85  | 3.98  |
| REN                       | RENE PL   | 2.17  | -2%                   | -2%   | 12.5      | 7.1   | 9.5   | 8.9   | 0.23  | 0.24  |
| EDF                       | EDF FP    | 19.93 | 11%                   | 23%   | 5.1       | 4.8   | 11.3  | 10    | 1.75  | 1.96  |
| ENEL SPA                  | ENEL IM   | 2.3   | -13%                  | -13%  | 5         | 4.8   | 7.1   | 7.1   | 1.79  | 2.36  |
| IBERDROLA                 | IBE SM    | 3.87  | -3%                   | 3%    | 6.9       | 6.6   | 9.7   | 9.6   | 3.85  | 4.14  |
| GAS NATURAL               | GAS SM    | 14.34 | -10%                  | -1%   | 6.1       | 5.8   | 10.4  | 9.9   | 2.54  | 2.84  |
| Average sector EBITDA (x) |           |       |                       |       | 7.3       | 6.3   | 9.6   | 9.1   |       |       |
| Discount vs Peers         |           |       |                       |       | 83.6%     | 70.7% | 3.1%  | 2.7%  |       |       |
| Analyst Estimates         |           |       | EV/EBITDA             |       |           | P/E   |       |       | EPS   |       |
|                           | Eur       | 2012A | 2013E                 | 2014E | 2012A     | 2013E | 2014E | 2012A | 2013y | 2014y |
| (x)                       |           | 6.0   | 6.6                   | 5.8   | 5.2       | 7.1   | 5.7   | 2.6   | 2.5   | 3.2   |
| Discount vs Peers         |           |       | 10.8%                 | 8.9%  |           | 34.4% | 60.0% |       |       |       |
| EBITDA 2013E              | 7,135     |       |                       |       |           |       |       |       |       |       |
| EBITDA 2014E              | 8,155     |       |                       |       |           |       |       |       |       |       |
| EPS 2013E                 | 2.52      |       |                       |       |           |       |       |       |       |       |
| EPS 2014E                 | 3.21      |       |                       |       |           |       |       |       |       |       |
| Price at 26-08-2013       | 18.37     |       |                       |       |           |       |       |       |       |       |

## Disclosures and Disclaimer

### Research Recommendations

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|             |                                                                                        |
|-------------|----------------------------------------------------------------------------------------|
| <b>Buy</b>  | Expected total return (including dividends) of more than 15% over a 12-month period.   |
| <b>Hold</b> | Expected total return (including dividends) between 0% and 15% over a 12-month period. |
| <b>Sell</b> | Expected negative total return (including dividends) over a 12-month period.           |

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**This report was prepared by Sara Piccinini, a student of the NOVA School of Business and Economics, following the Masters in Finance Equity Research – Field Lab Work Project, exclusively for academic purposes. Thus, the author, which is a Masters in Finance student, is the sole responsible for the information and estimates contained herein and for the opinions expressed, which reflect exclusively his/her own personal judgement. This report was supervised by professor Rosário André (registered with Comissão do Mercado de Valores Mobiliários as financial analyst) who revised the valuation methodology and the financial model.** All opinions and estimates are subject to change without notice. NOVA SBE or its faculty accepts no responsibility whatsoever for the content of this report nor for any consequences of its use.

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