E.ON SE

COMPANY REPORT

UTILITIES

07 JANUARY 2015

STUDENT: RITA MANTAS

Spin-off to shed weak performance

Clear separation between good and bad assets

▪ We initiate our coverage with a PT FY15 of €13.66 and a Hold recommendation. Poor power and commodities' prices pose a heavy burden on the earnings of Conventional Generation. While the nuclear phase-out in Germany until 2022 will lead to a shortage of power production by 2023, the latest Russian economic turmoil is also expected to affect E.ON's earnings in 2015.

▪ In Germany the new regulatory period carried lower allowed revenues on the regulated asset base. Moreover, we expect further discussions in 2015 on the possibility of a capacity market in Germany, following the UK's auction, which would pay for Generation's power plants not operating at a sufficient level.

▪ By 2016 the spin-off will have materialized. E.ON will focus on organic growth from regulated businesses, whereas the New Company will be more exposed to commodities' prices and foreign exchange rates movements – main negative risks for today's E.ON valuation - despite no debt. We see no substantial gain from the transaction, but a clear separation between good and bad assets.

▪ Our PT FY15 of €13.66 reflects a potential gain of 3%. It covers 85% chance of a base scenario, based on a SOTP valuation (44% of Grid; 26% of Renewables; 14% of Generation; 12% of EP, and 4% of Russia) and a pessimistic scenario over Russia. Overall, our valuation is based on the DCF model and multiples, with a WACC for the different business segments ranging between 5% and 7%.

Company description

E.ON is one of the largest investor-owned energy companies in the world and the largest German utility. Its activities include conventional generation of fossil fuels and nuclear power, renewable energy, exploration and production of oil and gas, trading global commodities and managing network connections in and outside Europe.

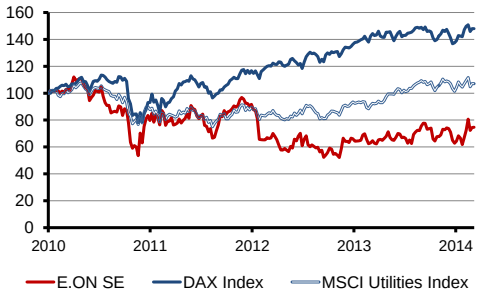
Recommendation:	**HOLD**
Vs Previous Recommendation	*HOLD*
Price Target FY15:	**13.66 €**
Vs Previous Price Target	*12.53 €*
Price (as of 06-Jan-15)	**13.27 €**

Reuters: EONGn.DE, Bloomberg: EOAN.GR

52-week range (€)	12.23-15.46
Market Cap (€m)	26,553
Outstanding Shares (m)	2,001
Volume	10,516,233

Source: Bloomberg, Company data

Market Performance



Source: Bloomberg

(Values in €m)	2013A	2014E	2015F
Revenues	122,450	113,332	100,122
EBITDA	9,315	8,242	8,212
Adj. Net Income	2,142	1,457	1,699
EPS	1.12	0.75	0.88
DPS	0.6	0.5	0.5
P/E	12.0	17.2	15.2
EV/EBITDA	6.24	6.26	6.18
EV/EBIT	10.24	11.21	10.78
Net debt/EBITDA	2.5	2.7	2.7
ROA (%)	1.9	1.4	1.6
ROIC (%)	5.4	4.2	4.5

Source: Company data, Analyst's estimates

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Executive summary

E.ON is a key player in the European power market

E.ON is one of the largest utilities operating in Europe. Currently, the company operates in a broad range of business units including conventional power generation and renewables; exploration and production of oil and gas, trading activities and power and gas distribution throughout Europe. E.ON also operates in Russia, with a stable market position (84% interest ownership), and recently in Brazil (43%) and Turkey (50%).

Low energy prices have been affecting negatively E.ON's results for the last years

Externally, the weakening of commodities' prices, owing to lower consumption demand and economic growth, has contributed to low energy prices with German forward prices following a downward trend. The price of the Brent crude oil has been falling more than 40% since August 2014 to levels lower than $60 per barrel, while the price of Coal reported a milder decrease of 18%. In 2013, E.ON's revenues and EBITDA lowered by 7% and 17% yoy, respectively, also owing to the effect of disposals in previous years. European directives continue to favour renewables and making companies to lower CO2 emissions by 20%, with tighten targets for German utilities of 40% by 2020. Moreover, current tensions in Russia caused a deep devaluation of the rouble with government yields reaching 17%. Uncertainties on whether the country is entering a crisis, as in the end of the 1990's, remain to be observed in 2015. **Internally**, E.ON is undergoing a cost savings program to lower operating costs in key segments. Also, the nuclear phase-out in Germany is compromising production in the long-term, as it accounts for the closure of 5,403 MW (9% of total installed capacity) until 2022. Furthermore, the grid is now subject to a new regulatory period in Germany, lowering the allowed return on the regulated asset base.

Our FY15 PT includes 15% probability of a pessimistic scenario of Russia's default

In 4Q14, E.ON announced a large scale restructuring. Following the day of the **spin-off** announcement**,** share price rose 4.24% with investors valuing the operation in €1,161 mn. Although we estimate no change in our valuation following the spin-off, our FY15 price target (PT) of €13.66 per share includes 85% probability from our base scenario, a sum-of-the-parts (SOTP) valuation, and 15% attributable to the impact of Russia's default on E.ON's earnings.

Company overview

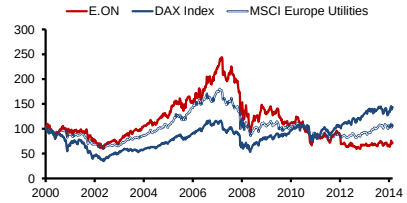
Company description

Largest German utility listed in the DAX

E.ON is one of the largest global investor-owned energy companies and the largest German utility listed in the German Stock Index (DAX) by market capitalization. The company was formed in 2000, after the merger between

VEBA and VIAG, establishing E.ON as one of the world's largest energy service providers and chemical group by then.

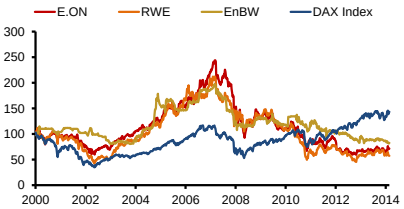
Fig. 1 –Market Performance (2000-2014)



Source: Bloomberg

Until the financial crisis in 2008, E.ON together with other utilities undertook financial investments to boost operations leading to a period when European utilities **overinvested** in generating capacity. E.ON market performance reached its pick in 2007 and the stock has been losing value ever since. Both RWE and EnBW, E.ON's two direct competitors, showed a similar behaviour of poor market performance, losing about half of the market value worth in 2000. Unfortunately, power demand did not live up to expectations and, when the financial crisis hit, companies already had too much money tied up to expensive investments. One of the many consequences, were losses of billion euros, as investments did not materialize into profits. As referred by The Economist[1] in October 2013, "since September 2008, utilities have been the worst-performing sector".

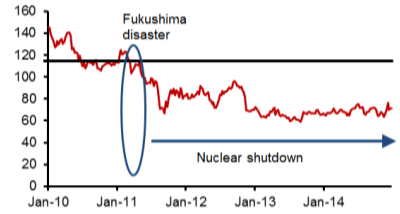
Fig. 2 – German Utilities Market Performance (2000-2014)



Source: Bloomberg

From 2011 onwards, E.ON has committed itself to change its energy mix, lower financial debt and reduce operational costs. Because current power demand and electricity prices continue to fall, much of the power plants do not produce up to a level which pays for its use. Also, the **Fukushima disaster** (2011) made the German government to rapidly request utilities to decommission all nuclear power plants (NPP's) with E.ON required to close eight out of the eleven NPP's permanently. Last but not the least, international goals to reduce CO2 emissions by 2020 require European utilities to shutdown highly pollutant fossil fuels under the **Large Combustion Plant Directive** (LCPD). According to the Directive 2001/80/EC, the European Union (EU) establishes yearly limits for emissions of pollutants from large combustion plants with installed capacity of at least 50 MW.

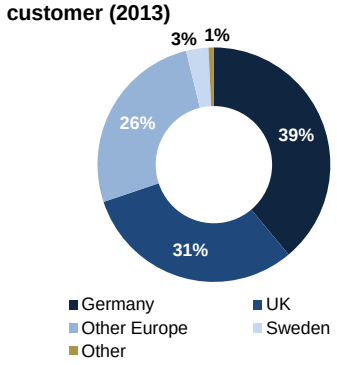
Fig. 3 – E.ON events and market performance (2010-2014)



Source: Bloomberg

Nevertheless, as a whole E.ON currently operates in a wide variety of business segments across different regional markets. In 2013, E.ON's sales accounted for more than 700 TWh of electricity, as well as more than 1,000 TWh of gas. Owned generation of electricity represented only 35% of total sales, whereas the remaining was obtained through purchase contracts of jointly owned power plants and outside sources. Gas sales were procured outside the company and, hence, are not related to E.ON's own generation. Its activities include conventional generation of fossil fuels and nuclear, renewable energy, exploration and production of oil and gas (EP) in the North Sea and Russia, trading global commodities[2] and managing power and gas distribution in and outside Europe. Although Europe represents E.ON's primary market (Germany represents circa 39% of E.ON's external sales), the company has also expanded its operation to Russia, where E.ON Russia is listed in the MICEX Index, as well

Fig. 4 – External sales by location of customer (2013)

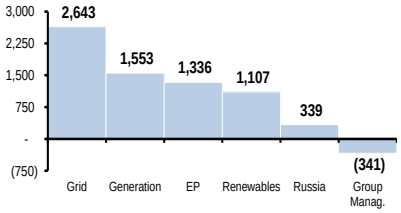


Source: Company Data

[1] See The Economist, October 12th 2013, *How to lose half trillion euros*.
[2] Global Commodities is included in EP business segment due to its relatively low and volatile earnings.

as more recently to Brazil in 2012 (E.ON owns 43% of Eneva) and Turkey[3] in 2013 (E.ON owns 50% of Enerjisa) through equity stakes and joint ventures.

Fig. 5 - EBITDA by segment 9M14 (in € mn)

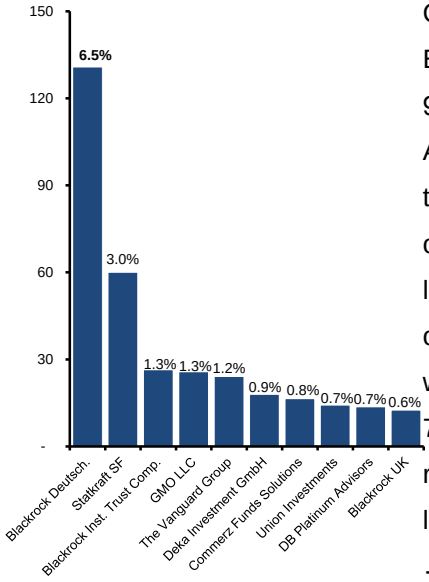


Source: Company data

Despite the current challenges, E.ON has always benefitted from a stale share of its earnings from regulated activities. As for 9M14, 36% of total EBITDA came from regulated businesses, followed by conventional generation of nuclear power and fossil fuels to produce electricity (21% of total EBITDA). Renewables' earnings have grown over the last years, particularly owing to wind onshore and offshore farms, which together with solar, represent more than 50% of Renewables' EBITDA. In 2014, E.ON only increased the portion of investments in the Renewables business unit (+57% yoy). As for 2015, no guidance has been announced yet.

Shareholder structure

Fig. 6 – Top 10 Investors in million shares (Dec-2014)



Source: Reuters

Owing to the relatively safety profile of utilities as compared to other industries, E.ON has a standard shareholder base. Out of the 2,001 mn shares outstanding, 93.5% are free float. Institutional investors hold more than 70% of E.ON's shares. As of December 2014, Blackrock Asset Management Deutschland held **6.54%** of total outstanding shares, corresponding to 130.78 million shares, followed by other institutional investors and funds. Nevertheless, Blackrock appears to be the larger outside investor with Blackrock Institutional Trust Company holding 1.32% of total shares and Blackrock Advisors (UK) Limited ranging in the 10th position with a 0.63% stake. Overall, in 2013 E.ON's shareholder structure consisted of 72% attributable to investment advisors, while the remaining 28% were owned by retail investors. In 2013, Germany was the region where most investors were located (41%), followed by the US and Canada (17%) and the UK (12%).

Table 1 – Blackrock voting rights, 2010-2013 (in mn shares)

Stockholder	Date of notice	Threshold exceeded	Gained voting rights on	Voting rights	
				%	Absolute
Blackrock Inc., New York, US.	26-Oct-12	5%	21-Mar-11	5.02%	100,378,878
	25-Mar-11	5%	18-Mar-11	5.01%	100,145,589
	8-Jun-10	5%	4-Jun-10	4.87%	97,352,995

Source: Company data

Leverage story and Credit profile

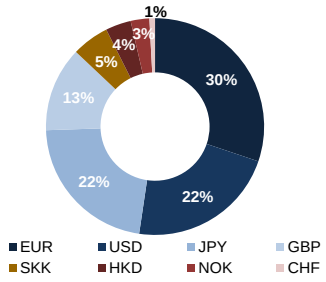
In order to strengthen its financial position, E.ON has improved its net financial position through reductions in controllable costs in all business units and proceeds from asset disposals. In 2013, E.ON succeeded in lowering economic net debt by 10% yoy to €32 bn and we estimate continuing progress and further

[3] Brazil and Turkey represent small business units, whose earnings are not relevant enough to analyze individually. They are included in the Russia business segment, as they also represent emerging market economies.

reduction in 2014 to €29bn, owing to further asset disposals[4]. However, the debt factor[5] is unlikely to lower below 3x EBITDA, as E.ON aims to. Despite improved net financial position, EBITDA has been lowering considerably yoy and we estimate for 2014 such trend to persist with a debt factor above 3.5x EBITDA. Additionally, we expect lower economic net debt in the following months owing to asset disposals in Iberia and Italy which would reduce it by 16%-17%. According to E.ON's announcement of the Iberian sale, 2014E Economic Net Debt may possibly already lower by €2.5 bn and Italian assets are likely to raise €2 bn in cash to lower debt in 2015. However, we do not include this adjustment in our estimates, since the amount in euros has not been confirmed by the company or the respective assets up to sale[6].

Moreover, the company has not issued debt since 2009 and been able to rely on the resources obtained through asset disposals to lower debt, as well as on the costs savings program implemented in 2011 - **E.ON 2.0 program** – to reduce operating expenses. Despite no floor, financial debt has been falling since 2009, as the company has been able to use much of its cash from disposals to lower debt levels. Nevertheless, 30% of its debt is denominated in EUR, followed by 22% in JPY and another 22% in USD. In the 2000's, the majority of utilities were all graded **A** or higher; however, since 2008 the macroeconomic scenario has changed and many have been downgraded. After the merger in 2000, E.ON was submitted to several divestments, while joining two companies into one. The company succeeded and by 2004, when it was graded **Aaa3** by Moody's with very low credit risk. The second round of divestments started in 2011, after a period of high expectations of continuing high power demand and of growth expectations for emerging economies. Following the aftermath of the crisis and the Fukushima disaster, E.ON had to adjust its power production, which required cutting expenses, shutting down power plants and selling part of its assets and businesses. Until July 2012, E.ON was rated A with a table outlook by S&P's, but since then E.ON's credit rating fell one notch to **A-** in S&P's, and remained **A3** in Moody's, both assigned with low credit risk. This year, following the demerger announcement, S&P's attributed E.ON negative outlook. Although most European utilities are still assigned with investment grade, all of them saw a downgrade of their credit rating after the 2008-2009 period. In terms of **cost of debt**, there is some discrepancy across utilities within Europe. According to Berk and DeMarzo in *Corporate Finance*[7], using the yield to maturity (YTM) of a bond as cost of debt one is likely to overestimate the expected return debt owners

Fig. 7 – Debt issued by currency (As of Nov-14)



Source: Bloomberg

[4] See Asset rotation and asset disposals under Company's strategy for further details.
[5] Debt factor consists of EBITDA over Economic Net Debt. Economic Net Debt corresponds to the net financial position with pension obligations and asset retirement obligations (less pre-payments to the Swedish nuclear fund).
[6] See Appendix I for details on E.ON's historical economic net debt, credit rating and investments.
[7] See Berk and DeMarzo, *Corporate Finance*, 3rd Edition, Chapter 12: r_D = YTM – Prob(default) x Expected Loss Rate.

Table 2 – Peers' cost of debt and credit rating (as of Dec-14)

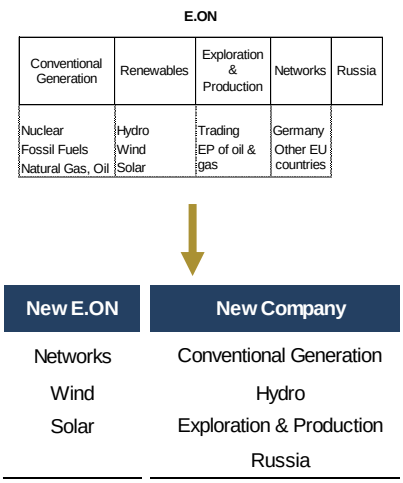
EDF	1.93%	A+
GDF Suez	2.63%	A
SSE	2.25%	A-
E.ON	4.45%	A-
EnBW	2.77%	A-
CEZ	3.62%	A-
Fortum	3.25%	A-
RWE	4.50%	BBB+
Verbund	3.71%	BBB+
Iberdrola	3.22%	BBB
Enel	3.76%	BBB
Gas Natural	4.47%	BBB
EDP	2.86%	BB+

Source: Bloomberg and analyst's estimates

Note: Corporate bonds used mature in 6 to 8 years; with no options attached; they all are euro denominated, and were issued at an amount equal or larger than €500 mn.

The company will split itself into two public listed companies…

Fig. 8 – Split of business segments



Source: Company data

would receive by investing in a bond, since one would be ignoring the risk of default of the asset. Consequently, one way possible is to estimate the probability of default and expected loss rate, based on the average loss rate for unsecured debt and the company's bond credit rating. Based on E.ON's issued bond maturing in 2020 with a coupon of 5.75% and YTM of 4.57%, we estimate the company's expected return for investors at 4.45%[8], based on an expected loss rate for sr. unsecured debt of 62.2% and an annual default rate of 0.2%.

Company's strategy

2016 Spin-off

In November 2014, E.ON announced a new corporate strategy in which the company will split itself into two public listed companies. While struggling with improving its market performance due current challenges in the industry, E.ON announced the creation of an independent company, as it aims to streamline operations through a **spin-off** of business units which are experiencing no growth and leaving out business units with higher growth prospects. This transaction will allow E.ON to focus on organic growth through stable and low volatile earning businesses, namely, distribution (including operations in Turkey), renewables and customer solutions. The New Company will cover power generation, hydro, trading and EP activities[9], as well as Brazil and Russia's operations – non-regulated activities. It will bear nuclear liabilities; risks related to nuclear litigation outcome, capacity markets and carbon market reform, using the respective assets as collateral. The **New E.ON's** financial structure will bear the burden of less than €30 bn of financial debt, so the **New Company** will be more financially flexible, despite the uncertainty, for instance, on commodities' prices development and the amount of provisions related to NPP's. We believe the debt allocation might have worse consequences for the credit rating of the new E.ON, as compared to the New Company, due to the financial debt burden with lower amount of assets as collateral. If succeeded, we estimate two different valuations, based on different business models from 2016 onwards (i.e.: type of competitors). We see this split of E.ON as a separation between good and bad assets. The New Company will benefit from current large market share on power generation within a mature industry. Hence, it is likely to have some competitive advantage, as a lower-growth business with a cash-generation capability. On the other side, there will be a business suitable to institutional investors whose preferences focus on companies with stable earnings, as the spin-off will separate the uncertainty surrounding nuclear and fossil fuel assets, where

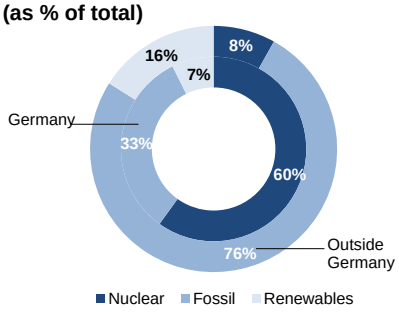
[8] For more details, see Cost of Debt.
[9] See Appendix II for further operational details on the spin-off.

business might go very well or the extremely opposite, from more growth promising segments. We see this transaction as a way to 1) overcome the current macroeconomic challenges in the power and commodities' markets and 2) bring more transparency into the different business segments' operations, especially when valuing the different businesses. Consequently, we see this shift in strategic view as strategically positive. Overall, we believe that by following this strategy E.ON strongly advocates that the resulting companies will be worth more as independent entities than as parts of a larger business[10].

The spin-off will only materialize in 2016, when the New Company can be listed through an IPO. Many issues over governance, guidance, employees division are still to be clarified within the next two years. E.ON only announced operational details and claimed for a DPS below €0.6 for the next two years.

Nuclear phase out

Fig. 9 – E.ON Owned Generation 9M14 (as % of total)



Source: Company data

In 9M14, nuclear power represented 60% of E.ON's total generating capacity in Germany, approximately 31.1 TWh. Outside Germany, fossil fuels were the main resource used to produce power (51.1TWh of natural gas an oil were produced, followed by 20.4 TWh of hard coal).

Because of the accident in Fukushima in March 2011, Germany had to reverse its energy policy. German utilities are currently seeking damages from the government for the early closure of their nuclear power plants. So far German courts have granted E.ON and RWE €2.2 bn. Several law suits are outstanding with RWE pursuing a three-month moratorium suit that E.ON has yet to follow. Nevertheless, Germany intends to eliminate current use of nuclear power by 2022[11] and implement a gradual replacement of fossil fuels by renewables. As for E.ON, it represents a total of 5,403 MW of nuclear installed capacity in Germany (8.6% of total installed capacity). The **German Nuclear Energy Act** has undergone amendments to accommodate the rapid nuclear phase out. The operating lives of nuclear power stations are to be extended for an average of 12 years. The lives of plants that began operating before or in 1980 will be extended by eight years, and that of newer plants by 14 years. In return, NPP operators will have to pay a **fuel rod tax** of €2.3 bn annually into the federal budget. As of 1 January 2011 until December 2016, the German Nuclear Fuel Tax Act will tax the nuclear fuel used in the commercial production of electricity. Note that E.ON anticipated the closure of one of its NPP to mid-2014, which was scheduled only to 2015. We see this as a positive contribution in the short-tern, since nuclear operating expenses will lower already in 2014 owing to the lower nuclear fuel tax rod payment associated to the early NPP closure. Moreover, from 2017 onwards

In 2011, Germany had to reverse its energy policy…

In Germany, NPP operators have to pay a fuel rod tax of €2.3 bn annually…

[10] See Scenario Analysis for more details on the spin-off.
[11] See Appendix III to closure dates of NPP's in Germany.

E.ON, as well as other Utilities operating in Germany, may no longer have to pay for further taxes on nuclear power, which will positively affect earnings over this technology. Furthermore, energy companies have consented to pay €9/ MWh of nuclear electricity into a fund for renewable energy (between the German Federal Government and the nuclear plant operators) in 2017, as well as the Bill to Create a Special Energy and Climate Fund. E.ON, EnBW, RWE and Vattenfall will be paying €300m annually into the fund in 2011 and 2012, as well as €200m annually from 2013 to 2016, as a non-redeemable advance on the subsidy payments due in 2017.

From 2013, the German energy policy has established its pillars on the ***Energiewende*** (Energy Transition) in order to implement a system, in which renewables would become the primary focus. By then, renewables' share as a primary energy consumption resource was 11.8% in Germany, according to the AGEB (*Arbeitsgemeinschaft Energiebilanzen* - Working Group Energy Balances). It is presumed that fossil fuels, wind power, solar power, and biofuels will be enough to replace the existing capacity from nuclear power after the decommissioning. However, we see the ongoing phase as a concern for E.ON's profitability in the long-term, since nuclear power represents the main share of Generation's installed capacity and earnings are already being penalized with further downward pressure on future earnings. Therefore, if no market design is implemented to compensate those upcoming losses, production and earnings estimates are likely to continue to be penalized.

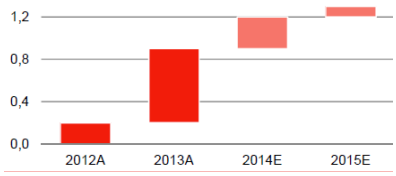
Steam power plants ought to comply with the LCPD

In terms of fossil fuels' generation, highly pollutant steam power plants are an environmental concern in Europe. In this sense, the LCPD aimed to reduce acidification, ground level ozone and particulates by controlling the emissions of sulphur dioxide, oxides of nitrogen and dust from large combustion plants in EU Member States. E.ON owns stakes in steam power plants in the UK, as well as in other European countries, for which has already been announced closure dates. For those which were built after 1987, they ought to comply with the LCPD. Those include Ratcliffe and Grain power plants, which will close by 2015. Ironbridge was converted into biomass, whereas Kingsnorth has been already closed. Power plants in operation before 1987 (namely coal and oil in the UK) are defined as *existing plant*, which can either comply with the LCPD through installing emission abatement (Flue Gas Desulphurisation) equipment or simply *opt-out* of the directive. An existing plant that chooses to *opt-out* is restricted in its operation after 2007 and must close by the end of 2015.

E.ON 2.0

In 2011, E.ON urged to implement a cost savings program which would allow the company to reduce variable costs from €11bn to €9.5 bn in 2015. Initial

Fig. 10 – E.ON 2.0 net cost savings



Source: Company data

measures in E.ON 2.0 program included important agreements with trade unions (*ver.di* and *IGBCE*) on a collective bargaining contract, which would allow E.ON to reduce its workforce. Compensations to the Board Management would also be reduced to a level below the average of DAX 30 companies. Such improvement would allow E.ON to become more cost-efficient, financially flexible and leave a higher margin to plan future investments. By 2013, the company had already lowered its workforce load by 7,700 employees (out of 11,000 estimated by the end of 2015) and its trajectory estimates a reduction to €8.2bn in 2015. In 2014, E.ON expects that most of its measures will have been implemented. As for November 2014, the company will have already achieved €0.9bn out of €1.3bn in net cost savings. Part of the cost savings are planned to be reinvested by the company in operational improvement and growing opportunities in the long-term. We see this program as an efficient way to surpass part of the current difficulties in delivering earnings, given the current macroeconomic scenario. One example is the Generation from nuclear and fossil fuels higher EBITDA in 9M14 yoy, as it benefitted from lower operating expenses, despite lower sales revenues.

In 2013, E.ON lowered its workforce load by 7,700 employees

Asset rotation and asset disposals

Generation benefitted from higher 9M14 EBITDA due to E.ON 2.0 Program

Along with the company's goal of lowering variable costs, E.ON has also focused on selling part of its noncore assets portfolio, renewable assets and shares held in subsidiaries in southern Europe. Since 2011, E.ON has affirmed itself as a capital intensive company and has not been the operator and sole owner of renewable assets. The asset rotation program encompasses most **renewable assets** of the company in strategic geographic areas, namely, in the US and Canada (8.2 GW), as well as in Europe (4.3 GW). In the US, E.ON has sold 80% stake on two wind farms by $650 mn and still owns approximately 2,700 MW of installed capacity. The deal included the disposal of 203 MW in Magic Valley 1 in Texas and 202 MW in Wildcat 1 in Indiana, which provided power to 120,000 household and started operations in 2012. Therefore, we see Renewables having a great potential to grow in the upcoming years, owing to the successful buy-and-sell strategy with continuing lower feed-in-tariffs.

Successful buy-and-sell-strategy in Renewables...

Another asset disposal occurred in October 2014, E.ON and RWE announced Urenco sale. Both companies owned a 33% stake in nuclear-fuel supplier Urenco and are likely to raise €3.3 bn. Urenco shareholders asked potential buyers to make initial offers by year end in a bid to raise as much as €10 bn. As for E.ON, nuclear energy production does not make part of its business strategy, given Germany plans to phase out nuclear power by 2022. **Uranium prices** have recovered since May, when they hit a record low, boosting Urenco's value.

Nuclear energy does not make part of E.ONs business strategy

In November 2014, E.ON sold to the Finnish state 20% of its stake in the **natural gas** company called Gasum Oy, whose operations included import, distribution and sale of natural gas. This transaction granted € 0.2 bn to E.ON.

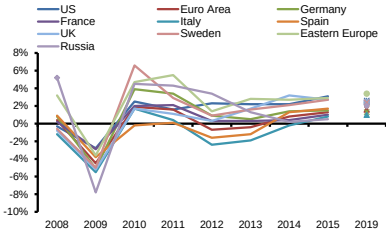
Iberian assets sold by € 2.5 bn, Italian assets up next…

Yet to define until 2014 year-end are the details on the sale of the **Iberian assets**, whose operating business gathered potential buyers since August. According to Dow Jones, E.ON reached an agreement on November 28th with Macquarie, Australian investment bank, and Kuwait Investment Authority (KIA), Kuwait's wealth sovereign fund, to sell Iberian assets by €2.5 bn. However, it is unclear whether E.ON is selling the entire business or only parts of it. Operations comprise 3.2 GW of thermal generation capacity, 1.1 GW of renewables (including in Portugal), plus a supply business with 688,000 customers and distributed network with a RAB of €0.8 bn. On what concerns **E.ON Italy**, it is less clear in which step the current disposal is. Italy's portfolio includes 0.9 GW of hard coal capacity, 3.6 GW of Combined Cycle Gas Turbine (CCGT) and 0.9 GW of renewables, plus a supply business with 0.2 mn electricity and 0.6 mn gas customers (3% of total customers in Europe in 2013).

We see both asset disposals as a way for E.ON to raise additional cash which will lower financial debt (by approximately €4 bn). Although those sales come as the unique solution to leave weak market positions, the amount by which E.ON will sell them is likely to lead to high impairment losses (so far amounted to €4.5 bn), given the vulnerable macroeconomic scenario in Europe. Additionally, E.ON claims to be reviewing disposals on EP assets in the North Sea.

Market overview

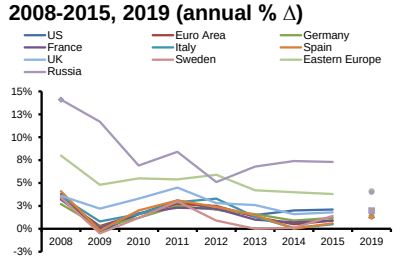
Fig. 11 –Gross Domestic Product in real terms, 2008-2015, 2019 (annual % Δ)



Source: IMF World Outlook – Legacies, Clouds and Uncertainties, October 2014

As mentioned previously, the energy market has been adversely affected by a fragile economic recovery, particularly, in Europe. The consequences of the sovereign debt crisis followed by the implementation of structural reforms have adversely affected households' income. Real gross domestic product (GDP) is today nearly positive in Central Europe and is expected to reach 2%, on average, by 2019. When assessing Consumer Prices Index (CPI), most countries' inflation is expected to vary between 0 and 3% in 2015, with Eastern Europe and Russia holding the highest values (4% and 7%, respectively).

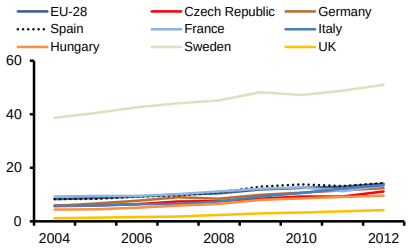
Fig. 12 – Consumer Prices Index, 2008-2015, 2019 (annual % Δ)



Source: IMF World Outlook – Legacies, Clouds and Uncertainties, October 2014

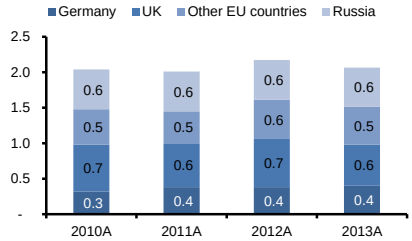
Over the last years Europe has discussed important measures to achieve climate targets, including lowering the number of carbon allowances under the **EU Emissions Trading Scheme** (ETS) and reducing by 20% CO2 emissions by 2020. In 2010, Germany's sustainable energy focused on more ambitious goals: reducing CO2 emissions by 40% below 1990 levels by 2020 and 80% below 1990 levels by 2050; increasing the relative share of renewable energy in gross

Fig. 13 – Share of renewable energy in gross final energy consumption, 2004-2012 (in %)



Source: Eurostat

Fig. 14 – E.ON carbon intensity, 2010-2013 (in metric tons of CO2 / MWh)



Source: Company data

Note: Carbon emissions refer to the amount of CO2 generated by each MWh of power produced.

energy consumption to 18% by 2020, 30% by 2030 and 60% by 2050; increasing the relative share of renewable energy in gross electrical consumption to 35% by 2020 and 80% by 2050, and increasing the national energy efficiency by cutting electrical consumption 50% below 2008 levels by 2050. Since 2012, a high volume of renewables, in particularly onshore and offshore wind and solar, has transformed the way electricity market operates. To make renewable development more cost effective, annual targets for the most expensive technologies, offshore wind and biomass, were set lower than the targets for the cheaper technologies, onshore wind and photovoltaics. In addition, the **feed-in-tariffs**[12] for new onshore wind and solar installations were reduced with continuing reductions based on deployment rates. In 2014, a revised law entered into force according to the **Renewable Energy Sources** (EEG), which will affect future costs, expansion and market integration of renewables in Germany and, therefore, allow further investment in renewables, in spite of fossil fuels, which might enable reaching the 2020 environmental targets.

Supply and demand

Germany

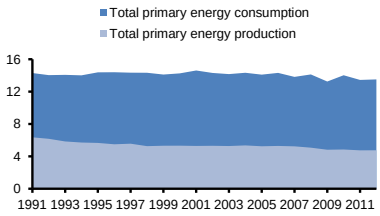
The German electricity market is Europe's largest one, with an average annual power consumption of 550 TWh and a generation capacity of 125 GW. Four vertically integrated companies operate in the German electricity market, namely, E.ON, RWE, EnBW and Vattenfall, which also produce and supply power to other nearby countries besides Germany.

Since 1998 the German electricity market has become fully liberalized. In the same year, the Federal Network Agency (*Bundesnetztagentur* or BNetza) was created in order to free up the power market. The regulator defines what companies charge the clients through pre-defined tariffs. These charges, as well as the feed-in tariffs in renewables, are paid through a levy charged to electricity customers. Transmission networks are pure monopolies. Electricity is delivered to the end-consumer through the high and extra-high voltage grid system. Power is further distributed through lower level grids, with transformer stations used to transform electricity voltage levels. Major expansion of the high-voltage systems is required to meet Germany's ambitious 2020 energy goals. Transmission system operators (TSO's) keep control power available to maintain stable and reliable supply, while distribution system operators (DSO's) are legally obliged to purchase all power produced by the renewables generators connected to their network. As for E.ON, part of sales results from the TSO's compensation for the power sold from renewables. Overall, demand for control energy is created when

Since 1998, the German electricity market has become fully liberalized

[12] See Appendix IV for details on feed-in-tariffs.

Fig. 15 – German Total Primary Consumption and Production, 1991-2012 (in quadrillion of BTU)



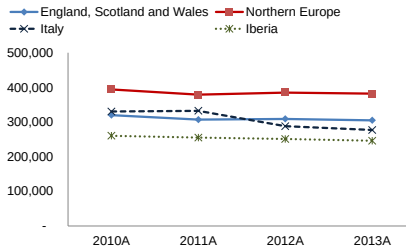
Source: U.S. Energy Information and Administration (EIA)

Table 3 – Operational data of largest Utilities in Germany (9M14)

	E.ON	RWE
Electricity sales (TWh)	548	192
o/w in Germany	97	95
Gas and Heat sales (TWh)	754	185
o/w in Germany	238	57
EBITDA (€ mn)	6,637	4,700
Gross margin	8%	13%
Adjusted NI (€ mn)	1,435	994
Profit Margin	1.8%	2.8%

Source: Companies' data

Fig. 16 – Electricity consumption, 2010-2013 (GWh)



Source: Company data

the sum of power generated varies from the actual load (due to weather fluctuations in the case of renewable energies).

In 2013, energy consumption in Germany remained low, albeit a small increase of 2.6% to 477.7 million metric tons of coal equivalent (MTCE). Gas consumption increased by 6.7% yoy to 107.5 MTCE. The market structure in Germany in terms of gas included 1,037 TWh of imports, while domestic production only amounted to 116 TWh and gas consumption remained at 956 TWh. Many of those imports are in fact contracts made prior to the actual year's sales volume, as utilities are obliged to purchase the gas ordered, even if it may not be all consumed by clients. From 1991 to 2012, German total primary consumption remained above its production[13], with a gap of approximately 9 quadrillion of British Thermal Units (BTU), where one BTU is equivalent to 45 million tons of coal. Hard coal was the resource mostly used to generate power and heat in the country; however, oil and natural gas constituted the energy sources frequently used as primary consumption in 2013 (33% and 23%, respectively). Coal is Germany's most abundant energy resource (represented 24% of Germany's total primary energy consumption in 2012). Coal consumption increased after Japan's Fukushima reactor accident, and has been used as an alternative for nuclear power in electricity generation. Nevertheless, focus is currently on lowering greenhouse gas (GHG) emissions with the EU currently reviewing further limits.

In 9M14, E.ON sold circa 548 TWh of electricity (+2% yoy) and 754 TWh in gas (-14% yoy). RWE reported lower electricity and gas sales as a whole. In Germany, power sales recorded a similar level for both utilities. Nevertheless, E.ON surpassed RWE in terms of gas and heat sales in the country, despite the fact that E.ON's gross and profit margins do not stand out from RWE's.

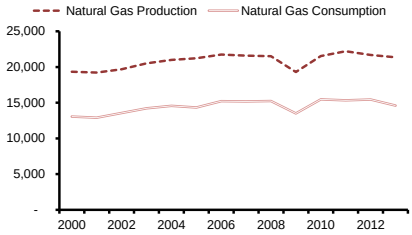
Other countries

Although Germany represented 39% of total sales of the company in 2013, E.ON also collects part of its proceeds from other regions, including the UK (31%), Sweden (3%), other EU countries both in Southern and Eastern Europe (26%) and Russia (1%). When assessing power consumption behaviour, it has fallen mainly in Northern European countries and in Italy. In Iberia, despite ongoing market reforms, electricity consumption has remained at stable levels between 200 and 300 TWh per year.

Due to its low carbon amount, **natural gas** is the fossil fuel with the lowest GHG emissions. It is more suitable for covering mid and peak load than it is for base load coverage, because they are operationally flexible, meaning they can be

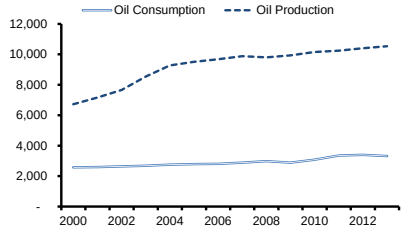
[13] Total primary energy production reported includes the production crude oil and natural gas plant liquids; dry natural gas, and coal; and net generation of nuclear, hydroelectric, and non-hydroelectric renewable electricity (EIA).

Fig. 17 - Russia's Natural Gas consumption and production, 2000-2013 (in bn cubic feet)



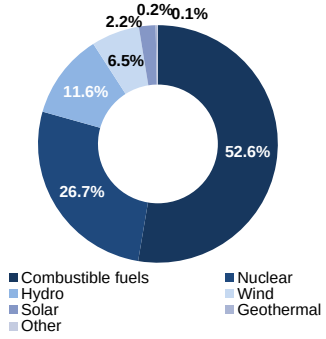
Source: US Energy Information Administration

Fig. 18 - Russia's Oil consumption and production, 2000-2013 (in bn cubic feet)



Source: US Energy Information Administration

Fig. 19 – Net electricity generation, EU-28 2012 (as % of total, based on GWh)



Source: Eurostat

… Hard coal and gas power plants are the most expensive resources marginally

started up and closed down in a short time. Highly efficient modern gas power plants (gas and steam plants) operate in the mid-load area. Older gas power plants or gas turbine plants will be used to cover peak load periods. To tackle climate change effectively, CO2 emissions must be reduced. Due to the long-term increase in GDP and energy demand outlook, E.ON has been committed to develop a new process. The carbon capture and storage (CCS) would enable generating electricity from coal with nearly zero emissions. That would mean that the world's coal reserves could be used to provide a secure, affordable, and climate-friendly supply of electricity. Those processes are developed to supplement coal-fired power plants, but will also be used at gas and biomass plants. Hence, steam generating capacity is to lower annually from 90 TWh to a level circa 65 TWh by 2018; whereas CCGT generating capacity is to remain at current levels, slightly below 20 TWh.

As for gas consumption, it has increased in Northern Europe, whereas in Southern countries it remained at constant levels - 276 TWh in Spain, while having declines 7% in Italy. The reasons behind low levels include mainly temperature differences across regions and slow economic recovery. In Russia, power consumption declined 1% in 2013 to 1,010 TWh. As a net exporter of oil and natural gas, both consumption levels have been at steady levels.

According to the International Energy Agency (IEA), energy production will rise to approximately 33,000 TWh by 2030. In 2012, the EU-28 countries reported 53% of net electricity generation from fossil fuels, followed by 27% from nuclear power and 12% from hydro power. Currently, around 40% of the world's generated energy is produced from coal, leading to high levels of CO2 emissions and adding pressure on rising prices.

Power prices

The prices for electricity procurement are determined on the stock market, namely, in the **European Energy Exchange** (EEX). The EEX determines the electricity price according to the **Merit Order Curve**[14], which states that the price which utilities offer electricity is based on the short-run marginal costs of their power plants; in other words, the price that the plants require to cover the operating expenses (OPEX). Renewable energies, namely, wind and solar have nearly zero OPEX, so they are the first in line; nuclear and lignite are the following resources with a low marginal cost, whereas hard coal and gas power plants correspond to the most expensive resources marginally depending on the CO2 emissions and fuel prices. According to this order, power is sold starting

[14] See Appendix V for details on the Merit Order Curve.

with the most inexpensive resource, until no more energy from such resource is available, and then moving to the other resource in line until the power demand is completely met. At the end, the most costly power plant required to sell energy determines the spot price at which electricity is sold in the market. For instance, when peak loads occur, that is, energy demand requires electricity to be supplied at a level above average, such power plants are utilized and prices increase.

Power prices have shown a tendency to worsen over the last months of 2014. Factors which have driven electricity and gas' prices down include the market movements of oil, gas, coal and carbon allowance prices internationally; recent macroeconomic and political developments, such as the aftermath of the sovereign debt crisis and political conflicts between Europe, Russia and the USA.

The electricity market price in Europe is determined based on the combination of both the steam coal price and carbon European Union Allowances (EUA's). Then each country has to match its supply and demand curves, so the country's wholesale electricity price is determined. Because coal trades in dollars per tonne and carbon EUA's trade in euros, there are foreign exchange rate effects which will affect the final price charged to the consumer. Consequently, commodities' prices and foreign exchange rates are two of the main factors which determine the electricity and gas prices charged in the market.

When looking at past months, the Brent crude oil price has fallen deeply to a level not seen since 2009, at $60 per barrel. Although this is a widely indicator of weak world demand, it illustrates how the economies are still vulnerable and consumption levels have not recovered sufficiently to levels prior to 2008. In terms of power market, steam coal forward prices are at the lowest level from the past five years, slightly above $70 per metric tonne, as well as carbon EUA's have registered levels ranging between €4 and €7 / tonne since January 2014. Such price movements add downward pressure on the base load price of power for 2015 in European countries. Germany first year base load electricity forward price[15] is at approximately €35 /MWh, the lowest since 2007, while France reported in November 2014 a forward price of €43 / MWh and Spain holds the highest value among the three countries (€47 /MWh).

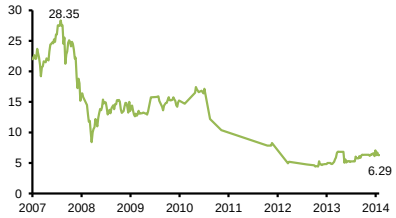
On what concerns the price of gas in Europe, it remains at a more stable level (slightly below €25 /MWh) and proves to be less volatile than other commodities since 2010, with exception of the period of the financial crises (2008-2009).

Not only has shortage of demand contributed to the downward trend of electricity prices, but also the plentiful supply of power owing to additional installed capacity

Fig. 20 – First year generic CIF ARA steam coal forward price ($/ tonne)

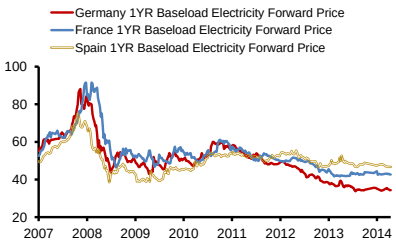
Source: Bloomberg

Fig. 21 – Carbon EUAs (€/tonne)



Source: Bloomberg

Fig. 22 – European Base Power Prices (€/ MWh)



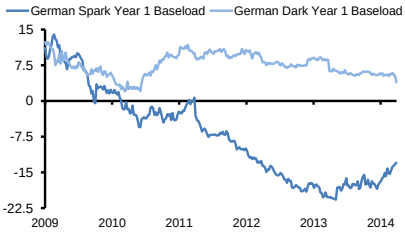
Source: Bloomberg

Fig. 23 – Netherlands TTF Gas (€/ MWh)

Source: Bloomberg

[15] Base load electricity refers to either the minimum amount of power a company must make available to its customers or the amount required to meet minimum demands levels based on constant expectations.

Fig. 24 – German Clean Dark and Spark Spreads (€/ MWh)



Source: Bloomberg

of renewables, namely, from solar and wind power. Additionally, the gap between the **German Clean Dark and Spark Spreads**[16] has widened since November 2011. The Clean Dark Spread is currently negative, meaning that the difference between the price at which natural gas and carbon EUA's are procured and at which the power is sold has been negative, owing to increased use of renewables, as well as to coal's cost advantage when compared to natural gas.

Capacity market

Demand response is used by utilities and grid operators to improve reliability, increase economic efficiency in regional energy markets, and to integrate renewable generation capacity into their systems. One form of demand response is the capacity market. Because electricity prices are often carefully limited and controlled, traditional price signals cannot be used effectively to curb demand for electricity. As the economic consequences of running out of electricity supply are considerable, capacity markets ensure that supply will be available when it is needed most, during peak times. These capacity markets provide an additional incentive for owners of generating capacity (i.e. power) to make their capacity available to electric markets, where price signals alone would not. Capacity providers are paid on a KW per year for the capacity a power plant can generate.

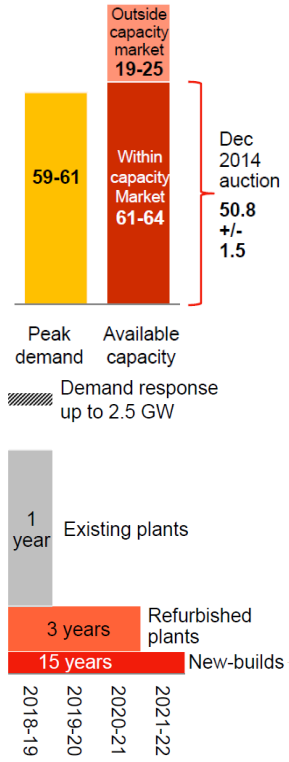
Important developments coming from new market design discussions in Germany…

Within the ETS, 2014 aimed at completing the internal energy market. According to E.ON, this is a step to accomplish a common market for energy which would save power and gas customers many billions of euros. However, structural issues on the existing setup of energy markets remain a drawback to an efficient energy market design in Europe. To accommodate the current challenges imposed by the EU directives and, particularly, the German government, energy supply ought to guarantee that the irregular output of wind and solar power is backed by gas and coal-fired power plants that are ready to come online when needed. We see important developments coming from new market design discussions in the upcoming years, which will have meaningful impact not only for E.ON, but also for other German utilities. As it will allow a payment for the installed capacity own by companies, and not based on generating capacity of electricity.

In **Germany**, the *Greenbook* aims at discussing electricity market design options, claiming for temporary capacity reserve to deal with uncertainties in the market. Such initial draft is essentially a fundamental approach to whether Germany is better-off with a capacity market or a pure energy market. Still, it does not draw

[16] The Clean Spark spread represents the net revenue on power sales after gas costs and emissions allowance costs from gas-fired generation plants; whereas the Clean Dark spread stands for coal-fired generation plants.

Fig. 25 – UK Capacity Market 2018-2019



Source: Company data

any conclusion that a capacity market is needed. Yet, nothing has been decided and more information will be given in 2015 under a *Whitebook* on the matter.

By the end of July 2014, the European Commission approved the introduction of a capacity market for electricity generators planned by the UK. Such market will ensure that power producers are compensated for putting secured power plant capacity at the market's disposal in addition to receiving income from the sale of electricity. The goal is to ensure the economic attractiveness of building and operating plant necessary to ensure security of supply. The UK model envisages annual capacity auctions of predetermined volumes of secured capacity. The highest accepted bid, ensuring that the required volume is covered, determines the price of capacity for all providers. Participation in the auctions is voluntary and technology-neutral, only requiring participants determining the secured capacity of each facility. The auctions will take place four years in advance of each provision period. Short-term additional needs will be satisfied through a second auction with a lead-in time of one year.

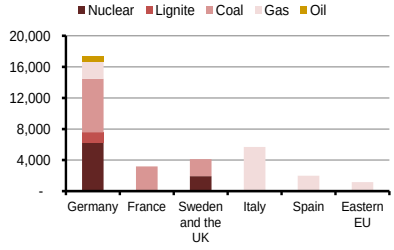
Utilities in the UK have already prepared offers on December 16th auction, which determined the power plant capacity for the **Fall 2018/2019** with a capacity payment set at £19/ MW for fossil fuel power plants. The price of capacity for new plant will be guaranteed for another 14 years in addition to the aforementioned period. In contrast, operators of old plants will have to participate in annual auctions (RWE, 1H14 Interim Report). By winning a capacity agreement, power plants continue to fully participate in energy and supplementary services markets. We see this having little impact in our valuation, given E.ON's operations in the country mainly include distribution networks and renewables.

Business segments

Conventional Generation

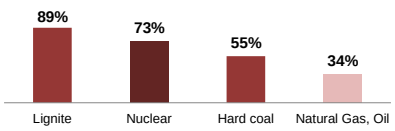
Conventional Generation oversees the operations in Germany, Sweden, the UK, France, Italy, Spain and Eastern Europe. In 2013, hard coal represented 43% of the segments' installed capacity (38% of nuclear and 16% of natural gas). E.ON's generating activity from hard coal and nuclear power in mostly represented in **Germany**. As from July 2011, Germany's amended Nuclear Energy Act required the shutdown of eight NPP's. Nuclear fuel-rod taxes have already lowered in 2014, due to the closure of the Grafenheinfeld NPP ahead of schedule. **Outside Germany**, E.ON owns three NPP's in Sweden: Oskarshamn 1, 2, and 3, where the company plans to invest €1 bn in 2015 to modernize them.

Fig. 26 – Conventional Generation breakdown, 2013 (in MW)



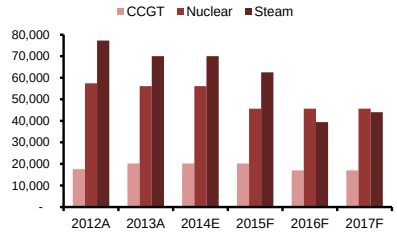
Source: Company data

Fig. 27 – Conventional Generation average load factors, 2012-2023F



Source: Analyst's estimates

Fig. 28 – Conventional Generation generating capacity, 2012A-2017F (in GWh)



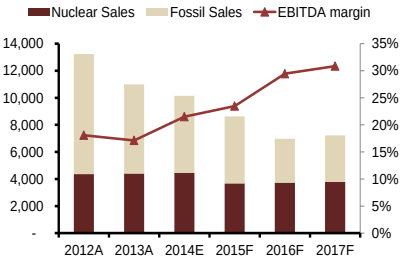
Source: Company data and analyst's estimates

Table 4 – Inputs projections

	2012A	2013A	2014E	2015F
Coal price ($/ tonne)	103	88	73	73
Crude Oil ($/ barrel)	110	100	70	69
CO2 EUA (€/ tonne)	7	5	6	7
EURUSD	1.320	1.379	1.380	1.405

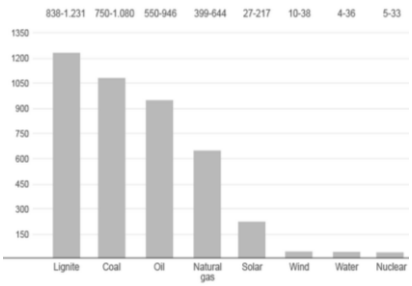
Source: Bloomberg and analyst's estimates

Fig. 29 – Generation' Sales and EBITDA margin, 2012A-2017F (in € mn)



Source: Company data and analyst's estimates

Fig. 30 – Life-cycle in grams (CO2 equivalent/kWh)



Source: Company data

We estimated E.ON's generating capacity for the upcoming years based on historical load factors, which will be assumed constant throughout our valuation timeframe, and total installed capacity[17], while taking into account already completed divestments and the announced investment portfolio by the company. Owing to the gradual German nuclear phase-out, we estimate that nuclear power production will gradually decrease until 2022, reaching a minimum of approximately 12 TWh by 2023. Notwithstanding nuclear energy contributes significantly to a low-cost electricity supply in Europe. The competitiveness of nuclear energy is not affected by rising fuel costs. Instead, for a NPP to produce power uranium is essentially the main operating cost driver.

We estimate the largest impact on EBITDA coming from the variations on coal and CO2 prices, as well as to the foreign exchange difference between the euro and the dollar. We estimate Effective CO2 to increase 3% annually, ranging between €5 and €8 per tonne, based on Bloomberg consensus until 2017. Following the downward trend on the coal price, we estimate a continuing behaviour, reaching $68 per tonne on average. Based on our estimates, we used the power price variation and applied to Generation's earnings forecast. Although our model assumes a total revenues decline, EBITDA will remain robust owing to E.ON 2.0 Program, leading to a higher EBITDA margin (29%, on average).

Renewables

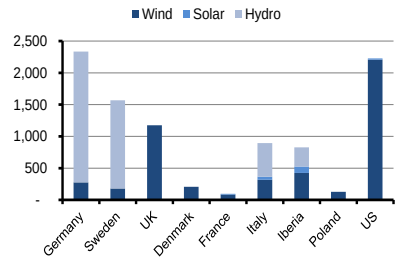
The Renewables unit underpins E.ON's strategy. Main resources comprise **hydro, wind and solar energy**. A part from nuclear power, renewable resources are the cleanest resources with hydro releasing between 4 to 36 grams of CO2 per kWh, wind with 10 to 38 grams of CO2 per kWh and solar energy with 27 to 217 grams of CO2 per kWh.

E.ON operates 212 **hydro power plants** in Sweden, Germany, Italy and Spain. All together represent 6,100 MW with an average generating capacity of 18.5 TWh per year. E.ON's hydro plants allow for continuous base load capability and, therefore, constantly feed power into the grids. In Germany, E.ON owns eight run-of-river hydro power plants (927 MW); four storage plants (261 MW) and another four pump storage hydro plants (884 MW).

E.ON's wind portfolio consists of 36 wind onshore farms and is currently the **world's third-largest offshore** wind company. In Europe existing projects are primarily located in Spain, Italy, the UK, Germany and Sweden. The London Array is the largest offshore wind farm (630 MW) owned by E.ON, DONG Energy and Masdar. E.ON owns onshore wind farms with 4,000 MW, on average, of

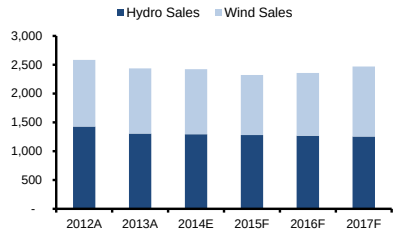
[17] Generating Capacity (MWh) = **Load factor** x Installed Capacity (MW) x 8760, where 8760 corresponds to the total number of hours (24 hours) within a year (365 days).

Fig. 31 – Renewables breakdown, 2013 (in MW)



Source: Company data

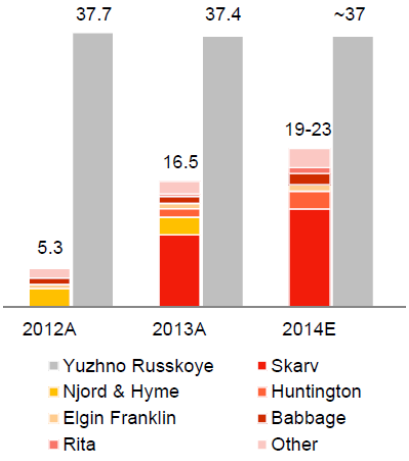
Fig. 32 – Renewables' Sales an EBITDA, 2012A-2017F (in € mn)



Source: Company data and analyst's estimates

Note: Wind sales include solar and other renewable energy sources.

Fig. 33 – Oil and gas production at EP business unit (in mboe)



Source: Company data

installed capacity in Europe; while in the US, there is one of the world's largest onshore wind farms (782MW).

Finally, **solar power** is produced at a lower scale than hydro and wind. In the photovoltaic method (PV), solar cells transform the sun's rays directly into electricity, which is how E.ON often operates in the market with 60 MW capacity in Southern Europe (with Iberian assets being disposed) and 20 MW in the US. Concentrated solar power (CSP) refers to the sun's rays being used to produce heat that generates steam to drive a turbine and generator.

In 2013, renewables' sales volume lowered 6% yoy to €2,436 mn, mainly due to low hydro revenues. For 2014, we estimate sales volume at a similar level, despite the marginal decrease in the feed-in-tariffs, but a higher sales volume in generating capacity, owing to the investment pipeline presented by E.ON until 2017[18]. Additionally, we reach a higher EBITDA margin due to lower operating costs with renewables, based on historical yearly decline on growth rates of operating costs. If the company continues to pursue a buy-and-sell strategy and, hence, increase power production, we consider such strategy will continue to have a positive impact on company's earnings. Our forecasts of generating capacity follow a similar reasoning as in Generation; however, in terms of average retail price, this is regulated according to the feed-in-tariff criteria as seen in Annex III. Overall, we observe a 15 percentage point increase in EBITDA margin in 2017, relatively to 2014, stabilizing around 70% by 2023.

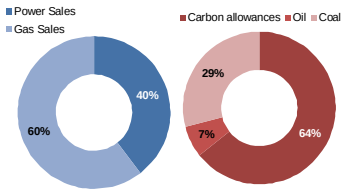
Exploration and Production

E.ON's **EP segment** runs operations in Norway, the UK, Algeria and Russia. It comprises activities related to the exploration, development and production of oil and gas, namely, acquiring exploration licences, acting as operator in the development of assets and purchasing stakes in strategically important oil and gas fields. EP revolves around three stages: exploration, development and production. **Yuzhno Russkoye** in Siberia, Russia, has been E.ON's largest production unit since 2009 (it represented 69% of total production in 2013).

Global commodities unit is in charge of the trading activities and of managing and developing pipelines, long-term supply contracts and storage facilities; managing commodity price risks and identify trading opportunities. This unit trades complex financial products related power and gas (i.e.: spots, forwards and options); emissions (i.e.: EUA's forwards and swaps); oil derivatives; coal and freight swaps; weather derivatives, as well as for storage and transport. Always depend on macroeconomic environment, this business unit's profits have

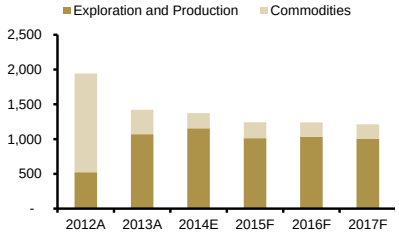
[18] See Appendix VI for investment pipeline in Renewables until 2017.

Fig. 34 – Commodities' sales, 2013 (Power and gas sales based on TWh; carbon allowances, oil and coal on mn metric tons)



Source: Company data

Fig. 35 – EBITDA decomposition, 2012A-2017F (in € mn)



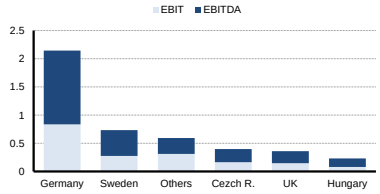
Source: Company data and analyst's estimates

Table 5 – E.ON's networks

Regional Unit	Network length ('000 km)		Market share (in %)	
	Power	Gas	Power	Gas
Germany	352	59	19	14
Sweden	134	2	24	60
Hungary	84	18	50	20
Romania	79	20	17	49
Czech R.	65	4	27	6
Slovakia	37	-	40	-
Spain	32	-	5	-

Source: Company data

Fig. 36 – Grid EBITDA and EBIT 9M14 (€ bn)



Source: Company data

Table 6 – Regulatory periods

	Power	Gas
Germany	2014-2018	2013-2017
Sweden	2012-2015	2013-2016
Spain	2013-2016	Not relevant
Hungary	2013-2016	2010-2016[4]
Czech Republic	2010-2014	2010-2014
Romania	2013-2017	2013-2017
Slovakia	2012-2016	Not relevant

Source: Company data

proven to be highly volatile last years. Due to the recent deterioration in global fuel prices, optimization trading has showed volatile and vulnerable earnings. The uncertainty of the energy market recovery in the short-term is likely to worsen the segment's profitability.

In 9M14 EP's sales revenues increased and we expect this trend to be confirmed in 2014 EBITDA, owing to higher production levels. However, and taking into consideration current shortage of electricity consumption, weaker commodities' prices, the likelihood of further asset disposals in the North Sea and the depressive scenario in Russia, we estimate this trend to be short-lived, meaning that, from 2015 onwards, EP's performance will not improve substantially. Owing to its difficult production predictability, earnings estimates are based on historical growth rates of production and sales proceeds. As for 2015, E.ON already expects lower levels of EP production, due to the review of a possible disposal in the North Sea and macroeconomic conditions, which will also affect the market performance of trading products in Global Commodities.

Grid

The energy world is changing with generation plants that utilize non-dispatchable energy sources gaining in importance. Also, power generation is becoming increasingly decentralized within Europe, so the harmonization of supply and demand becomes more complex, posing new challenges to the grid. E.ON manages its distribution business through **eleven regions in Europe:** Germany, the UK, Sweden, Italy, Spain, France, the Netherlands, Hungary, Czech Republic, Slovakia and Romania. Germany represents 49% of total grid EBITDA and 46% of total unit's EBIT (9M14). Within other EU countries, Sweden absorbs the largest share of EBITDA (34%), whereas other EU countries hold the largest share of EBIT (32%), including Spain, Italy, France and the Netherlands.

Germany

In 2013, E.ON supplied power to 25 million customers in Europe, from which 6.1 million were from Germany (24.4% of total customers). As for the German grid, E.ON supplied 160.4 bn kWh of power (27.2% of total power supplied) with approximately 19% for the German power market; and 474.1 bn kWh of gas (41.2% of total gas supplied) with a corresponding market share of 14%. E.ON owns 26 GW for the Renewable Energy System (RES) in Germany (37% market share), matching almost three times the amount of peak load.

In 2014, BNetza launched the **new regulatory period** in Germany. The main changes included 2011 as the new base cost year for allowed revenues from 2014 onwards; replacement investments from 2012 to 2016 are reflected in

Fig. 37 – Distribution Cost Base

Cost base

=

Allowed OPEX

+

Allowed Return on Equity

+

Allowed depreciation

Source: Company data

Table 7 – Regulated Asset Base 2013/2014 (€ bn)

Germany	~10
Sweden	~9.1
Spain	~0.8[2]
Hungary	~1.5
Czech Republic	~1.2
Romania	~0.7
Slovakia	~0.6[3]

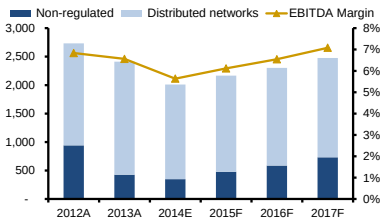
Source: Company data

Table 8 – Foreign exchange rates, 2013A-2015F

	2012A	2013A	2014E	2023F
EURGBP	0.8	0.8	0.9	0.9
EURSEK	8.6	8.9	9.3	8.6
EURHUF	292.3	297.0	287.6	9.6
EURCZK	26.0	28.0	27.9	28.0
EURRUB	40.3	45.3	50.0	45.0

Source: Company data and analyst's estimates

Fig. 38 – Grid EBITDA and EBITDA Margin, 2012A-2017F (in € mn)



Source: Company data and analyst's estimates

allowed revenues partly from 2019 onwards and benefits from performance measures effective from 2012 to 2018 can be kept until 2019. In Germany, E.ON's cost base includes the sum of the allowed OPEX; allowed return on equity on regulated assets, where the regulated asset base (RAB) is financed up to 40% of equity; and depreciation of the respective RAB. Within this revenue cap method, the regulator compares actual OPEX to a benchmark every five years to assess efficiency, so if OPEX is below the benchmark, the company is efficient in its distribution activity[19]. Owing to large investments in the RES, part of E.ON's distribution sales also comes from the RES surcharge (approximately 50% in 2013), meaning it is derived from the TSO's compensation for the power from renewables. In our model, we assume a return on equity as defined by the regulator at 9.05% (nominal, pre-tax) from 2014 onwards and a zero differential between used OPEX and regulator's benchmark, which might underestimate the real efficiency benchmarking due to historical performance.

Other EU countries

Sweden is the second largest country, where E.ON operates with power and gas market shares of 24% and 60%, respectively, based on total network length in 2013. Here, regulation defines allowed revenues as RAB-based, the regulatory return on the RAB is 5.2% (pre-tax, real), so we add the inflation of the country based on our abovementioned projections for Sweden, reaching a regulatory weighted average cost of capital (WACC) of 5.3% for 2014 (6.60% in 2015). The RAB equals 84% of the replacement value of all assets independently of their age. As for other EU countries, namely the UK, Czech Republic, Hungary, and other European countries, we used competitors' market data, which also supply power and gas in each country, and averaged out the return on equity in order to reach a nominal, pre-tax, WACC (5.16%, 5.16%, 5.03%, and 4.9%, respectively). For all EU, including Germany, the depreciation rate used in our projections was based on an average of historical depreciation rates.

Overall, our grid EBITDA margin from 2015 to 2023 is expected to remain at 6% on average. Our estimates for the **distributed networks** consider the RAB revenues abovementioned, whereas **non-distributed networks** refer to retail customer solutions and we assume a continuing downward trend between 1% and 2% yoy. Overall, E.ON's earnings for 2014 onwards are expected to be negatively affected by lower regulated fees in Germany with sales proceeds falling from € 35,644 mn to € 34,848mn. Yet, one should note that 9M14 EBITDA fell 7% yoy also due to lower power demand, which we expect to persist over

[19] See Appendix VII for details on the distribution regulation in Germany.

next years. Looking at the rest of Europe, we currently do not expect large deviations from last year's sales revenues of € 23 bn until 2023, on average.

Russia

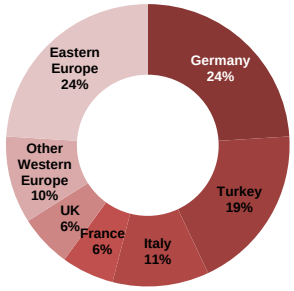
Table 9 – Non-European segments

	Russia	Turkey	Brazil
	E.ON Russia	Enerjisa	Eneva
E.ON's Interest	84%	50%	43%
Installed Capacity (GW)	10.3	2.5	1.7
9M14 EBITDA (€mn)	401 *+6% yoy*	(62) *-1% yoy*	

Source: Company data

E.ON entered in Russia in 2007 after acquiring a majority interest (69.34%) in OGK-4, which comprised five power plants with total installed capacity of 8,630 MW - Surgutskaya GRES-2, Berezovskaya GRES, Shaturskaya GRES, Smolenskaya GRES and Yaivinska GRES. Today, E.ON is the largest foreign investor in the country's power industry. E.ON Russia operates in the wholesale electricity market, generates and trades power and gas, and supplies heat. E.ON currently owns 83.73% of E.ON Russia, owning 10,345 MW of installed capacity.

Fig. 39 – Share of Russia's natural gas exports by destination, 2012

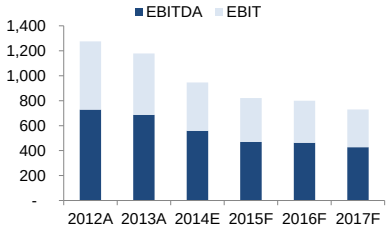


Source: Eastern Block Energy, U.S. Energy Information Administration

In 2012, Germany was the primary market to which Russia exported crude oil and condensate products, accounting for 24% of Russia's total exports of natural gas. Despite E.ON's EP activity in Russia, much of the power and all the gas sold by the company are acquired through purchases. As not all power and gas come from owned production, there is a dependence on outsiders' supply of energy, one of them being Russia. Consequently, we see business relations with partners from Russia as crucial to E.ON's profit stability in the long-run, given that Russian businesses are one of the most stable sources of earnings of E.ON. Additionally, the current political and economic tensions between the Western countries and Russia are a going concern, adding pressure on the rouble. In December 2014, the Russian Government announced a conceivable economic recession in 2015.

We estimate some instability over the next two years due to the abovementioned factors, which are reflected on the devaluation of the rouble. Nevertheless, we estimate growth and the currency to stabilize (EUR/RUB between 40 and 50) by the 2020's, owing to the economic potential growth of the economy, stabilization of commodities' prices, despite current hit, which we believe to be related to the macroeconomic scenario and political issues. Nevertheless, we relied on estimates over nominal GDP growth rate forecasts (1% on average) to account for sales price evolution in the upcoming years, as we believe it better reflects lower power demand in the country and future behaviour of the economy than the current high inflation.

Fig. 40 – Russia EBIT and EBITDA, 2012A-2017F (in € mn)



Source: Company data and analyst's estimates

Management Group

Management group describes all intersegment transactions which, when consolidated, are being double counted and, therefore, ought to be eliminated when consolidating financial accounts from all business units.

Valuation

Table 10 – Valuation method and Price Target FY15

	Share Price (in €)	Probability
Base scenario	14.03	85%
Pessimistic scenario	11.54	15%
PT FY15	13.66	

Source: Analyst's estimates

FCFF were forecast until 2023 and perpetuity was applied onwards…

We cover E.ON with a price target FY15 of €13.66 and a **Hold** recommendation. Our price target results from a base scenario derived from our SOTP valuation (€14.03) and a pessimistic scenario over the Russian economic meltdown (€11.54). To accommodate the specifics of the company's business units and the current macroeconomic scenario, we valued the company based on the Discounted Cash Flow (DCF) model. Future cash flows to the firm (FCFF) were forecast until 2023 and perpetuity was applied onwards, assuming a terminal growth rate for specific business segments. Because the last NPP will be decommissioned in 2022, we assume 2023 cash flow as stable and, hence, we apply the perpetuity formula to this last FCFF, under the DCF model[20]. However, one should note that at this point the company has not disclosed all future planned investments, since they will depend on future economic and regulatory circumstances. Moreover, the announced spin-off will not be completed by year-end 2015, when our recommendation and PT applies. Although our estimates will not be altered at this moment, it is possible to assess the future market value implications given the breakdown per segment underlying our SOTP analysis.

Table 11 – Valuation assumptions

	2013A	2014E	2015E
DPS	0.6	0.5	0.5
D/EV at market values	40%	43.75%	43.75%

Source: Analyst's estimates

Table 12 – 2023 FCFF Projections

	2023F
Total Op. FCFF in perpetuity	**2,941**
Generation	629
Renewables	**955**
EP	616
Grid	1,426
Russia	**172**
Management	(856)

Source: Analyst's estimates

The DCF model discounts the free cash flow available to all investors at the weighted average cost of capital (WACC) and is suitable for business units and companies that manage their capital structure to a target level. We assume a constant debt-to-enterprise value (D/EV) at 43.75%, which guarantees a dividend pay-out of €0.5 per share (DPS) in 2015 and 2016. Hence, by holding a constant ratio, both debt and the business are allowed to grow proportionally, while the company will manage to keep the same risk profile. We estimated FCFF for Generation, Renewables, EP, Commodities, German Networks, Other European Networks, Russia, and Management. In the end, five business segments pertain our projections, namely, Generation, Renewables, EP (which includes Commodities' operations), Grid (which considers all European networks), Russia (which accounts for consolidated stakes in Brazil and Turkey's businesses), and Management.

Within Other European networks, as well as in Russia, we forecast both future Income Statement and Balance Sheet in the respective countries' currencies, in nominal values, and then all streams of cash flows were converted into euros assuming a spot foreign exchange rate and future rates, which will stabilize at a current level at some point between 2017 and 2023.

[20] Value of Operations $_{t=2022}$= $FCFF_t$ x (1 + g) / (WACC – g).

Table 13 – Business growth

	WACC	ROIC	Growth
Generation	5.3%	1%	No
Renewables	4.6%	14%	Yes
EP	5.5%	4.8%	No
Grid	4.7%	4%	No
Russia	4.6%	6%	Yes

Source: Analyst's estimates

Note: Growth within the segment is assumed when the Return on Invested Capital (ROIC) is larger than the cost of capital (WACC).

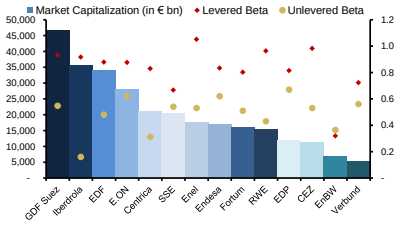
Table 14 – Perpetuity assumptions of growing business segments

	Renewables	Russia
Reinvestment Rate (RR)	3.9%	1.5%
ROIC	14.0%	5.6%
Terminal Growth Rate	**0.54%**	**0.08%**

Source: Analyst's estimates

Note: Terminal growth rate = RR x ROIC, where RR = Growth $Capex_t$ / $NOPLAT_t$.

Fig. 41 - Peers' Market Capitalization and Betas, as of Jan-2014



Source: Bloomberg

When applying the perpetuity formula in the **last FCFF in 2023**, we ought to compare each unit's WACC and respective return on invested capital (ROIC[21]) to better conclude whether it is reasonable to expect growth in the FCFF. If the WACC is larger than the ROIC, it means that the return on the invested capital does not compensate for the average cost implied on the respective capital and, therefore, it is not to worth to invest nor to assume any growth rate for such assets. We estimate this outlook applies to E.ON's Conventional Generation, EP and to the Grid. The Management Group in our model is not an operational segment; therefore, it is not reasonable to account for its growth rate. Consequently, a terminal growth rate is justifiable in **Renewables**, where E.ON is planning to continue investing over the upcoming years and we see future market design in Germany to favour cleaner and cheaper energy; and **Russia**, where operational business has been a stable source of earnings for E.ON and we estimate long-term levels for the rouble and commodities' prices to stabilize, despite current economic turmoil. We estimate a nominal terminal growth rate of 0.54% and 0.08%, respectively.

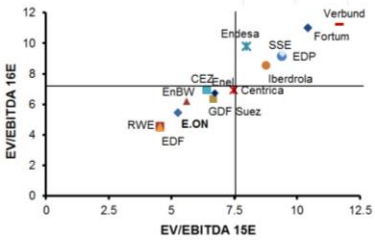
WACC

We estimated the WACC for each of the five business units of the company by selecting different competitors[22] to each business unit, that is, companies whose operating activities are more associated to Generation from fossil fuels, Renewables, EP of oil and gas and supply of electricity and gas within the geographic markets where E.ON operates. As for Management, we relied on the indebted (1.02) and debt free (0.59) factors, as stated in the 2013 Annual Report.

From each competitor's levered beta, we unlevered each one of them based on each company's D/E at market values[23]. By averaging out all competitors' unlevered beta, we reach the average unlevered beta and unlevered return for each business unit, so we could releverage using E.ON's target D/E at market values. On what concerns the European grids, we estimated the WACC[24] by considering companies operating in the Grid's geographic regions and then calculated an average unlevered beta in order to releverage with the target D/E. Consequently, we compute each segment's cost of equity required for the WACC in order to discount the FCFF. Within E.ON's competitors, E.ON ranks the fourth out of fourteen European companies, by market capitalization, and holds a levered beta of 0.88 (group's average is 0.82). Nevertheless, E.ON trades at a lower multiple (5.3x EBITDA '15E) relatively to its peers; however, it also occurs

[21] ROIC = Total Operating Invested Capital $_t$ / NOPLAT $_{t-1}$.
[22] See Appendix VIII for details on competitors' data.
[23] Beta unlevered = Beta levered / (1+D/E), where Debt (D) and Equity (E) are at market values. Debt beta assumed to be zero for all segments.
[24] WACC = rD x (1-tax rate) x D/EV + rE x E/EV, where rD is the cost of debt and rE refers to the cost of equity (levered).

Fig. 42 – Peers' EV/EBITDA 2015E and 2016E



Source: Bloomberg

with RWE and EnBW. In terms of price earnings, the company trades on the average of the group (16 in '15E) and in line with our estimates.

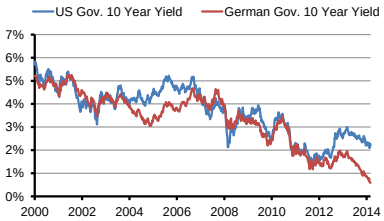
Table 15 – Market per business segment

	Rf	MRP	Beta Unlevered	Ru	Rd	Re	WACC	t	ROIC
Generation	1.85%	6%	0.66	5.8%	4.4%	6.8%	5.3%	27%	1%
Renewables	1.85%	6%	0.54	5.1%	4.4%	5.6%	4.6%	27%	14%
EP	1.85%	6%	0.69	6.0%	4.4%	7.2%	5.5%	27%	5%
Grid	1.85%	6%	0.56	5.2%	4.4%	5.8%	4.7%	27%	4%
Russia	1.85%	6%	0.53	5.0%	4.4%	5.6%	4.6%	27%	6%
Management	1.85%	6%	0.59	5.4%	4.4%	8.0%	5.9%	27%	0%

Source: Analyst's estimates

To account for the risk-free interest rate and market risk premium (MRP), we assumed a weekly average of the 10 years German Government Bonds (1.85%)[25] and a MRP of 6%[26], approximately matching the duration of our cash flow projections. For the last semester of 2014, Bund yields have been exceptionally nearly zero. Therefore, for valuation purposes, we opted for averaging out the values over the last years, getting us closer to the US government yields (2%), a more reliable benchmark to apply in our forecasts and discount FCFF. Because forecasts in Russia were projected in roubles and then converted into euros, we also assumed a risk-free rate of 1.84%. On what concerns the tax rate, although E.ON regards Germany as its primary market, the company also operates in other EU countries and Russia, where corporate tax rates differ. Therefore, we assumed a harmonized tax rate level of 27% to reflect the cost of capital of different businesses of the company (2013 Annual Report).

Fig. 43 – German and US Government 10 Year Yield, 2000-2014



Source: Bloomberg

Cost of debt

We estimate a cost of debt for the company of 4.45%

If there is little risk the firm will default, one can use the bond's yield to maturity (YTM) as an estimate of investors' expected return. However, today's companies share a different reality from a decade ago. Hence, if there is a significant risk that the firm will default on its obligations, then the YTM of the firm's debt, which is its promised return, will overstate investors' expected return. A 10 year bond issued by E.ON maturing in 2020 with a coupon of 5.75% matches approximately the duration of the FCFF in our valuation. E.ON's credit rating is A- in S&P's with a negative outlook. Hence, given YTM of 4.54%, a probability of default of 62.2%[27] and an average expected loss rate of 0.2%[28] based on E.ON's credit rating profile, the cost of debt for the company is 4.45%.

[25] The value of the risk-free interest rate is an average of weekly data of 10 year German Bunds from Oct-10 to Oct-14.
[26] See Damodaran, Aswath, March 2014, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications – The 2014 Edition*, Stern School of Business.
[27] See Moody's, *Corporate Default and Recovery Rates 1920-2010.*
[28] See Berk and DeMarzo, *Corporate Finance*, 3rd Edition, Chapter 12.

Equity investments and Provisions

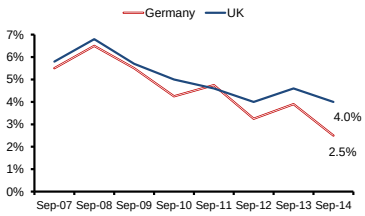
Equity investments include E.ON's interests in companies accounted under the equity method and other financial assets. Most of those companies recorded impairment charges of €468 mn in 2013 (-29% yoy) owing to the weak market environment, as well as project delays and technical issues in other non-EU countries. For valuation purposes, we accounted for equity investments by booking values totalling circa €6 bn. Out of this amount, €4.7 bn refer to non-current securities, namely, fixed-income securities; whereas the remaining includes equity investments made by the Group.

Fig. 44– Provisions breakdown, 2015F

Source: Analyst's estimates

After adding the value of equity investments to E.ON's operations value, we deduct the value of non-operating liabilities, which are related to miscellaneous provisions (80%), employee pension funds (16%) and assets held for sale (4%), in order to reach E.ON's EV. **Provisions** absorb the largest share of non-operating liabilities (approximately €24 bn), where nuclear related provisions represent 69% of total provisions, namely, non-contractual nuclear waste and contractual nuclear waste management obligations. Also, we expect net **provisions for pension fund** and similar obligations amounting to €4.9 bn, where €3.4 mn are net defined benefit liabilities. Germany represented 81% in 2013, followed by the UK (10%). The net defined benefit liability corresponds to the difference between the present value of the defined benefit obligations and the fair value of plan assets. Nevertheless, the value of such liabilities has been adversely affected since 2013. Lower discount rates have increased net provisions, for instance, by 22% in 9M14 yoy. Finally, **assets held for sale** not only include respective liabilities, but also asset retirement obligations of Generation and Renewables power plants, which in total have a negative impact of €1.16 on E.ON's EV.

Fig 45 – Discount rates on employee pension funds in Germany and UK (9M 2007- 9M 2014)



Source: Company data

Minorities

E.ON's non-controlling interests cover consolidated shares in companies in which E.ON does not own 100% of the businesses. E.ON Russia is owned 83.73% by E.ON Group and, for valuation purposes, it is accounted by market values. E.ON Russia is a public listed company in the MICEX Index, where the top 50 most Russian liquid stocks are listed, in the Moscow Stock Exchange. Therefore, we estimated E.ON's minority interest using the market capitalization of the company. When adding E.ON's Russia equity at market values, together with the share held by E.ON, it leads to an amount of €626 mn. As for the remaining minorities, they were accounted by book values with an average share interest of E.ON on those companies of 71%, amounting to €853 mn.

Sum-of-the-Parts

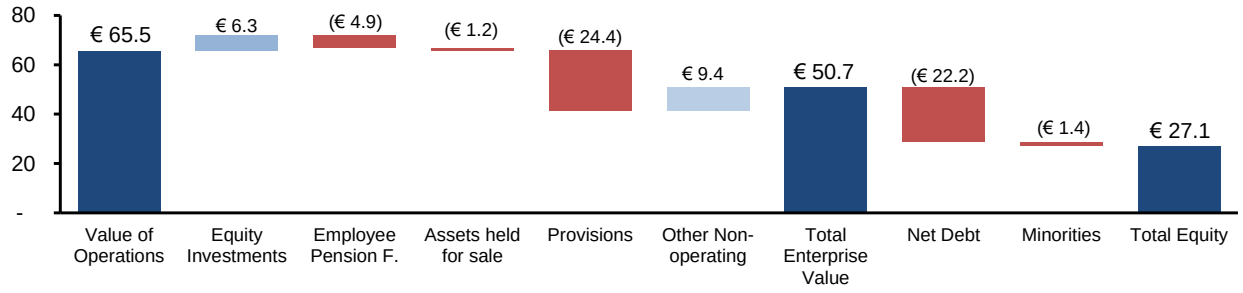
The Grid represents 44% of our SOTP valuation…

Our sum-of-the-parts (SOTP) valuation[29] values E.ON at €14.03, which was derived after valuing each business segment according to the DCF model. The Grid, including both networks in Germany and within Europe, represents 44% of total value from operations, followed by Renewables (26%), Generation (14%) and EP (12%), when excluding Management adjustments from total. Given the decommissioning of nuclear and closure of most steam power plants, due to mandatory restrictions, Generation is losing generating capacity and, hence, value in the upcoming years. After considering the individual terminal growth rates applicable to Renewables and Russia, and discounting the FCFF of all units, E.ON's operations in 2015 are valued at €65.5 bn, whereas the Enterprise Value (EV) is worth €50.7 bn, leading to Equity at market values of €27.1 bn.

E.ON's equity at market value of €27.1 bn FY15

Although we combined multiples before applying the DCF model in order to gather more specific information of each business segment, the valuation approach and, hence, results are valid based on our assumptions made throughout the analysis.

Fig. 46 – Enterprise value decomposition, 2015F (in bn €)



Source: Analyst's estimates

Sensitivity Analysis

Nevertheless, some key inputs are worth to analyse and assess the impact of small deviations on business units' value and, consequently, on E.ON's share price. Given the DCF model's assumptions, one may vary key inputs, especially, the determinants of the terminal growth rate. Here, we applied a terminal growth rate to key business units which are believed to create value for the company in the long-run, namely, in Renewables.

By performing a sensitivity analysis on E.ON share price, by relying on the key inputs of the terminal growth rate in the Renewables business, we are able to assess how the company market value varies accordingly, given percentage changes on the Reinvestment Rate (RR) and on the Return on Invested Capital

[29] See Appendix IX for details on the SOTP valuation.

Table 16 – Share price sensitivity analysis to changes in RR and ROIC (in €)

ROIC (%) \ Reinvestment Rate (%)	0.0%	1.9%	3.9%	5.8%	7.7%
0.0%	13.43	13.43	13.43	13.43	13.43
7.0%	13.43	13.56	13.71	13.87	14.03
14.0%	13.43	13.71	**14.03**	14.40	14.81
21.1%	13.43	13.86	14.40	15.07	15.90
28.1%	13.43	14.02	14.80	15.91	17.45

Source: Analyst's estimates

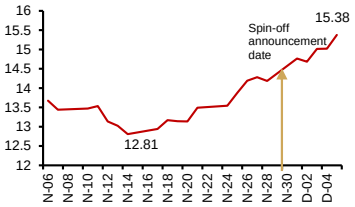
(ROIC)[30]. We conclude that within a small range for changes in the ROIC and for the RR, the share price of the company varies between €13.56 and € 15.07. Based on our valuation assumptions, if FCFF do not grow on perpetuity, owing to company's decision of not reinvesting in the business or to the inexistence of investment growing opportunities, the market value for E.ON will not fall below €13.43 per share. However, if the RR reaches 7.7%, a higher ROIC in Renewables will lead to a substantial increase in the share price of E.ON.

Scenario Analysis

Spin-off premium

We aim to analyse the possible implications of the spin-off scheduled for 2016 by E.ON. Theoretically, the spin-off creates value, when it is believed the whole is worth less than the sum of the parts[31]. Markets prefer companies with a clear focus and well-defined core business. So, if reasons for a spin-off are credible, markets will reward them. Following the announcement, E.ON's share price closed the next day **up by 4.24%.** Hence, if large companies are not allowed to focus on segment niches, markets will price companies with a conglomerate discount, so there is a negative synergy of such large company. One additional reason for divestitures is having excessive leverage. As for E.ON, the company has been gradually lowering its financial debt, yet still holding a high value.

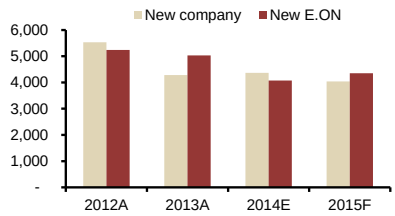
Fig. 47 – E.ON share price daily performance, 05/11 – 05/12/2014 (in €)



Source: Bloomberg

Given this scenario, we believe the optionality from stockholders point of view, as they will be able to choose whether or not they prefer holding shares on the New Company, will depend on the probability the New Company performs well in the market. So far, we have assisted a positive market reaction (+4.24% following the announcement), which indicates markets are welcoming such robust decision. We estimate investors attribute €1,161 mn to this operation, based on the closing price on the day before the spin-off announcement (€14.185 /sh. on Nov-28.) and the price on the day of the announcement (€14.765 /sh. on Dec-1). If we consider the stock movement until the end of the week of the announcement, then the value attributed to the operation more than doubles to €2,385 mn (€15.38 /sh. on Dec-5).

Fig. 48 – EBITDA decomposition following the Spin-off, 2012A-2015F (in € mn)



Source: Company data and analyst's estimates

We estimate an EV for the New Company, based on our forecasts per segment. The New E.ON is estimated to yield a '16 EBITDA of € 5,301 mn. If we multiply it by the EV/EBITDA of competitors of the new group's activities (8.5x EBITDA), we reach an EV of €46,955 mn. According to our SOTP, E.ON pre-spin-off 2016 EV is €54,692 mn. So, when subtracting both values, we reach an **EV for the New Company** of €7,737 mn, leading to an EV/EBITDA multiple of 2.36.

[30] Terminal Growth Rate = RR x ROIC and FCFF = NOPLAT x (1 – Growth rate / ROIC).
[31] $V_{A+B} < (V_A + V_B)$

One should also consider whether or not to **add a premium** on our PT FY15 owing to potential benefits following the spin-off. One way to look for value creation is through a comparison between the market value of the companies post and pre-spin-off[32]. We estimated the weights attributable the earnings of each company after the spin-off, based on which segments will make part of them, in terms of total earnings of E.ON in 2016. Additionally, we computed the equity at market values for the two new companies, based on price earnings estimates for next year, namely, by averaging out multiples of each groups' P/E. Consequently, we expect New E.ON to be worth €15,627 (average '16 P/E of 23 and EPS of 0.68 for next year); whereas the New Company's equity value would be €13,131 mn (average '16 P/E multiple of 16.6 and estimated EPS of 0.79). **By adding both market values, we reach €28,758 mn**. According to our SOTP valuation, in 2016 E.ON would be worth **€28,444 mn (pre-spin-off value).** The difference confirms the initial expectation that there is some value creation following the demerger (€314 mn). Nevertheless, it does not represent a significant portion of the pre-spin-off E.ON's equity market value (~1%) in order to add a premium on our PT FY15. Therefore, we believe the share performance during the week following the spin-off was due to market speculation and hopes on a new solution to overcome current challenges. Consequently, we do not see a reasonable upside potential at this moment.

Table 17 – Share price performance one week after market announcement

Date	€/share	Gain
1-Dec-14	14.77	
2-Dec-14	14.68	
3-Dec-14	15.02	
4-Dec-14	15.02	
5-Dec-14	15.38	
8-Dec-14	**15.02**	**1.73%**

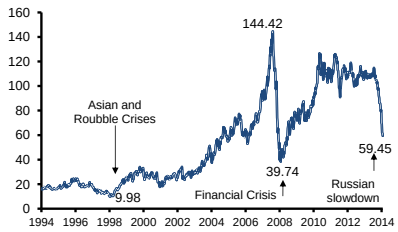
Source: Bloomberg

No significant upside potential on PT estimate FY 15

Russia's economic meltdown

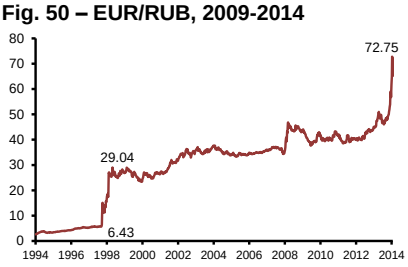
By the end of 2014, Russia's economy has been subject to several negative factors. As other oil producers, Russia is one of the largest ones, with the current downward trend in the price of the Brent crude oil (approximately $60/ barrel) being one of the causes undermining country's earnings. Moreover, the retaliation with the Western Europe and the US, owing to conflicts over Ukraine, led to several trade restrictions between those economies. As a consequence, the EUR/RUB has increased sharply to more than 70. The devaluation of the currency has led Russian Government to increase the interest rate of the economy to 17% with fears of a severe recession. This scenario of economic unsustainability brings some memories back to the financial crisis in 1998.

Fig. 49 – Brent crude oil ($/ barrel), 1994-2014



Source: Bloomberg

Fig. 50 – EUR/RUB, 2009-2014



Source: Bloomberg

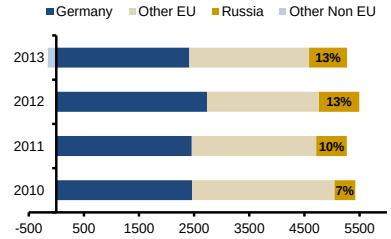
In 1998, when the Russian crisis hit, the rouble was already too devalued and the country was about to default on its debt. Russia had the rouble pegged with the dollar within a specific band. If the rouble would devalue above that limit, the central bank would have to sell foreign reserves to buy roubles. Notwithstanding, this decade was also the time when the Asian financial crisis occurred having a large negative impact on the Russia foreign exchange reserves. One similar fact

[32] Krishnamurti, Chandrashekar,S.R., Vishwanath, 2008, *Mergers, Acquisitions and Corporate Restructuring*, Sage Publications, chapter 11.

Fig. 51 – 10Y Russia Government Yields, 2010-2014 (%)

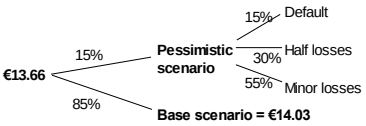
Source: Bloomberg

Fig. 52 – E.ON's Grid EBITDA breakdown, 2010-2013 (in € mn)



Source: Company data

Fig. 53 – Scenario analysis on E.ON share price



Source: Analyst's estimates

Note: Default means E.ON loses total business earnings in the Grid and EP activities in Russia; with 30% probability E.ON will lose 50%; and with 55% probability business will suffer minor losses (15%).

to today's reality, besides the devaluation of the currency, is the low price levels of the Brent. Some consequences included high inflation with high social costs for the Russian. In 1998, both IMF and the World Bank had to intervene to guarantee the successful implementation of structural reforms, which together with rising oil prices in 2000 contributed to a fast economic recovery.

Most of E.ON's earnings in Russia come from the distribution networks' business, which represented 13% of total Grid EBITDA in 2013. Although our valuation already accounts for a slow economic recovery in 2015, one could be more pessimistic over Russia and expect a scenario of high inflation, lower commodities' prices and the ceasing of E.ON's operating activities in Russia. For this purpose, we create a pessimistic scenario with 25% chance, in which we assume a permanent devaluation of the rouble with (EUR/RUB = 70). Operationally, because our EP segment includes both EP and trading activities, we assume the later to account for 25% of the total unit's value, based on historical EBITDA breakdown. Additionally, Russia does not resemble all exploration of oil and gas for the company. Therefore, we estimated Russia's share on EP activity of 70% of total EP business, based on Yuzhno Russkoye share on total production. According to our discounted cash flows in our SOTP valuation, we estimated the impact on E.ON's share price based on different scenarios within our pessimistic scenario, that is, assuming the rouble devalues and remains at a high level. Consequently, if a default occurs, both Russia's distribution activities and EP business no longer contribute to E.ON's earnings, which would be a very pessimistic scenario, resulting in a share price of €10.47. If only 50% of Russia's EP business and distribution activities is vanished, then E.ON's share price would drop to €10.83. On the opposite, if a pessimistic scenario occurs, but with minor losses for E.ON (only 15% of both Russian businesses), then E.ON share price would fall to €12.21. For each of those sub-scenarios, probabilities were set at 15%, 30% and 55%, respectively, so our pessimistic scenario yields a share price €11.54. Finally, we value E.ON at €13.66 per share FY15, after considering our base scenario (share price of €14.03) with 85% possibility of occurring and our pessimistic scenario.

Owing to what occurred in 1998, a default in Russia would probably imply a further weakening of oil prices and of the rouble. A reduction in the oil price, due to a continuing lower world demand, would harm other business units of E.ON, as well as all utilities in Europe, making it difficult to reverse the weak performance in the sector observed since the financial crisis in 2008.

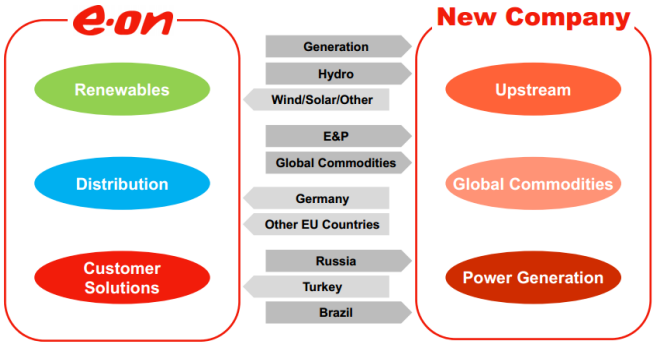
Appendix

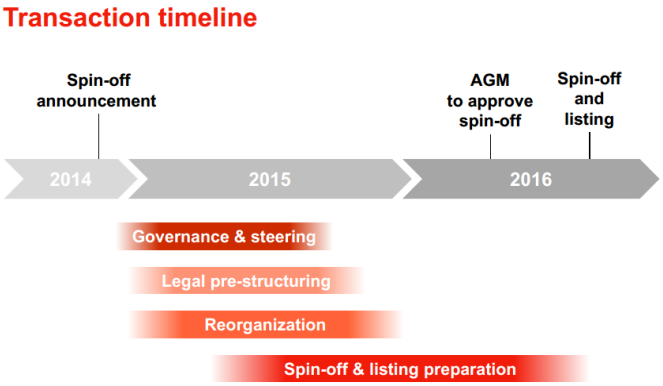
Appendix I: E.ON's Economic Net Debt

(in €mn)	2006A	2007A	2008A	2009A	2010A	2011A	2012A	2013A
Liquid Funds	6,189	7,075	6,348	6,116	8,273	7,020	6,546	7,814
Non-current securities	7,146	6,895	5,017	3,670	3,903	4,904	4,746	4,444
Financial Liabilities	(13,472)	(21,464)	(41,058)	(37,777)	(32,491)	(29,914)	(25,944)	(22,724)
FX hedging adjustment	-	-	1,988	(6)	334	524	234	(46)
Net financial position	(137)	(7,494)	(27,705)	(27,997)	(19,981)	(17,466)	(14,418)	(10,512)
Provision for pensions	(3,962)	(2,890)	(3,559)	(2,884)	(3,250)	(3,245)	(4,945)	(3,418)
Asset-retirement obligations	(14,134)	(13,754)	(13,682)	(13,784)	(14,470)	(15,672)	(16,482)	(18,288)
Economic Net Debt	**(18,233)**	**(24,138)**	**(44,946)**	**(44,665)**	**(37,701)**	**(36,383)**	**(35,845)**	**(32,218)**
EBITDA	11724	12450	13,385	13,526	13,346	9,293	10,771	9,315
Debt factor	**1.6**	**1.9**	**3.4**	**3.3**	**2.8**	**3.9**	**3.3**	**3.5**
S&P Credit rating	**A**	**A**	**A**	**A**	**A**	**A**	**A-**	**A-**
Investments	**5,161**	**11,306**	**18,406**	**8,655**	**8,286**	**6,524**	**6,997**	**8,086**
Asset Disposals	**3,877**	**1,431**	**432**	**5,384**	**9,601**	**5,987**	**4,418**	**7,136**

Note: Liquid funds refer to securities, fixed-term deposits, cash and cash equivalents; non-current securities are fixed-income securities; asset retirement obligations include non-contractual nuclear obligations and provisions for environmental improvements at gas storage facilities and for the dismantling of installed infrastructure – see International Accounting Standards 37, "Provisions, Contingent Liabilities and Contingent Assets".

Appendix II: Spin-off details





Source: Company data

Appendix III: Decommissioning of E.ON's Nuclear Power Plants

Nuclear Power Stations - Germany	**Shareholders**	**E.ON share (%)**	**Installed Capacity (MW)**	**Closure Date**
Grafenrheifeld	E.ON	100	1,275	2014
Gundremmingen B	E.ON/ RWE	25	321	2017
Brokdorf	E.ON/ VE	80	1,128	2021
Grohnde	E.ON/ Stw. Bielefeld	83	1,133	2021
Gundremmingen C	E.ON/ RWE	25	322	2021
Emsland	E.ON/ RWE	13	166	2022
Isar 2	E.ON/SWM	75	1,058	2022

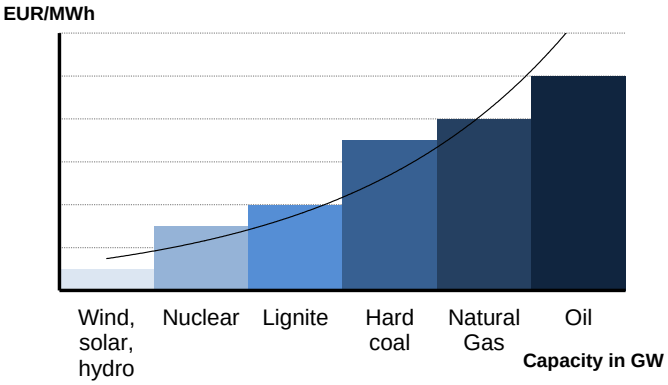
Source: Company data

Appendix IV: Merit Order Curve

According to the German law (in *Energiewende)*:

- Electricity market price in determined on the EEX, at a point where supply demand cross;
- Bids are sorted on the stock market by price on the stock market, as illustrated in the figure;
- Clean and, hence, low marginal cost energies are the first in line;
- Marginal power plant corresponds to the most expensive PP required to meet the demand level;
- The price encountered will be the spot price.

The Merit Order System Determining the Electricity Price



Appendix V: Renewables Feed-in Tariffs

The feed-in-tariffs for the different technologies, paid over 20 years of production (*Energiewende*):

- **Onshore Wind**: €0.06 to €0.09 per kilowatt-hour (kWh), depending on local wind conditions. This tariff for new projects will decline by 0.4% each quarter.
- **Photovoltaics**: €0.09 to €0.13 per kWh, depending on the size of the plant. This tariff will decline by 0.5% monthly.
- **Biomass**: €0.06 to €0.24 per kWh, depending on the type of biomass and the size of the power plant. This tariff will decline by 0.5% each quarter.
- **Offshore Wind**: Over the 20 year duration of the contract, offshore wind parks will be paid €0.19 per kWh in the first 8 years, falling to €0.15 and later to €0.04 per kWh, depending on the distance to shore and the depth of the sea. On average for the whole 20 years, they will receive €0.13 to €0.14 per kWh. The tariff will be reduced in 2018 by €0.01 per kWh for the first 8 years.

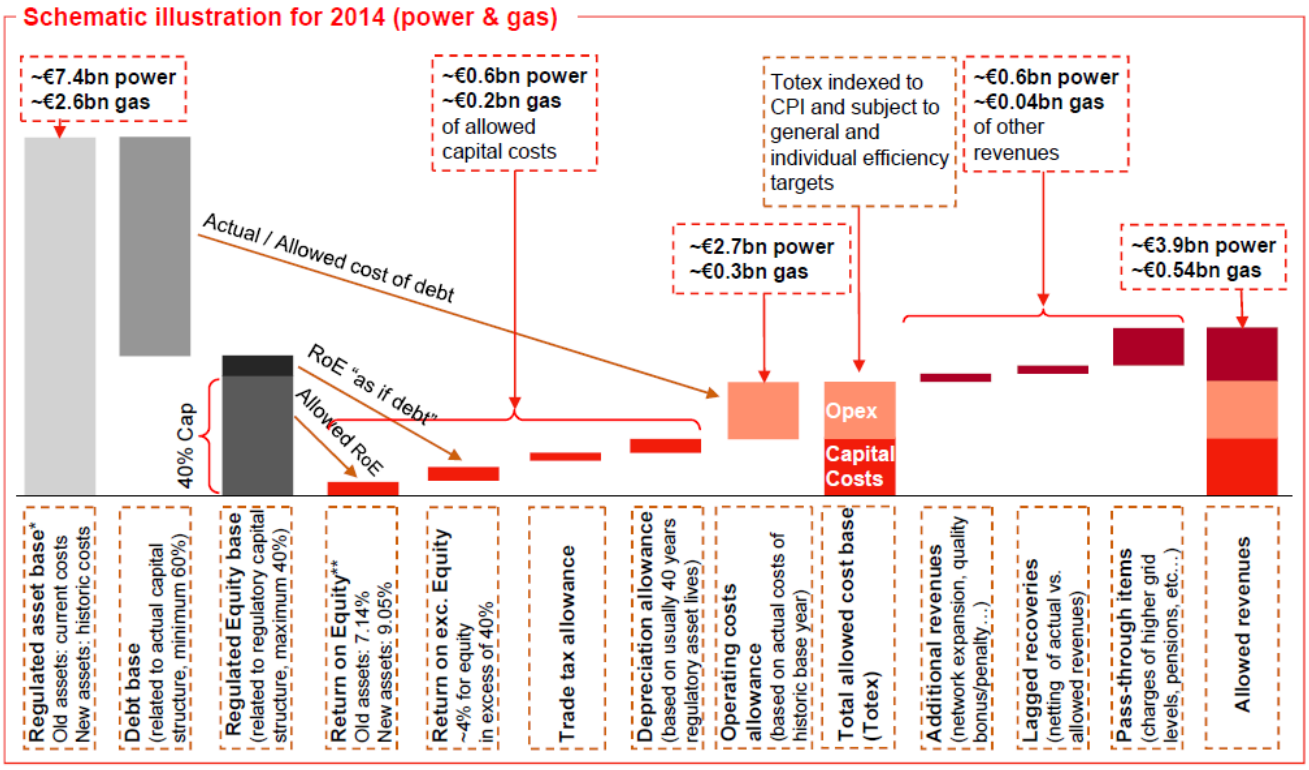
- **Hydro**: €0.04 to €0.13 per kWh, depending on the size of the plant. This tariff is reduced by 0.5% each year.

Appendix VI: Investment Pipeline in Renewables until 2017

Location	Technology	Investment (€ million)	Generating Capacity added (in MW)	Start Year
U.K.	Biomass	200	33	2015
U.S.	Onshore wind	100	211	2015
U.K.	Offshore wind	900	219	2016
Germany	Offshore wind	1,000	288	2016
France	Biomass conversion	200	170	2016

Source: Company data

Appendix VII: Distribution Regulation in Germany



* Old assets are those capitalized before 01/01/2006. New assets are those capitalized after 01/01/2006. Old assets are indexed up to 40% with asset-specific indices to determine the current costs.
** Return on Equity is post trade tax and pre corporation tax.

Source: Company data

Appendix VIII: Competitors' data

	Market Valuation					Beta	Profitability					Credit Rating
	Market Capitalization (in EUR mn)	EV/EBITDA 15	EV/EBITDA 16	P/E 15	P/E 16	Adjusted Beta (2/3*Raw Beta+1/3*1)	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Return on Assets	Return on Equity	S&P's
E.ON SE	27,844	5.27	5.45	15.55	15.26	0.88	-10.4%	-34.4%	5.3%	-0.4%	-1.5%	A-
RWE AG	15,377	4.54	4.54	11.67	11.85	0.96	-7.5%	-60.0%	8.1%	-2.7%	-26.6%	BBB+
ENEL SPA	33,965	6.73	6.71	11.47	10.88	1.05	-9.6%	10.5%	22.0%	1.7%	8.0%	BBB
ENEL GREEN POWER SPA	8,630	9.10	8.49	16.60	16.28	0.86	-0.4%	-4.5%	63.7%	3.2%	7.5%	-
ENBW	6,955	5.61	6.20	15.15	22.86	0.32	-0.7%	4.5%	9.8%	-2.5%	-22.8%	A-
ENDESA SA	16,861	7.98	9.78	11.13	15.54	0.83	-6.0%	-9.6%	16.9%	2.8%	7.1%	BBB
TOTAL SA	98,518	3.37	3.53	8.91	9.95	1.05	-1.8%	-0.3%	15.9%	5.1%	12.2%	AA-
SSE PLC	20,285	9.42	9.34	13.32	13.59	0.67	-3.4%	10.4%	7.5%	1.0%	4.0%	A-
IBERDROLA SA	35,577	8.77	8.55	15.82	15.01	0.92	-3.6%	18.5%	28.0%	2.3%	6.1%	BBB
VERBUND AG	5,305	11.69	11.25	32.84	27.37	0.72	-12%	-70.0%	22.3%	1.1%	2.8%	BBB+
GAS NATURAL SDG SA	20,899	7.47	6.95	14.65	13.91	0.85	-0.1%	2.4%	19.7%	3.6%	11.1%	BBB
CEZ AS	11,319	6.40	6.93	10.79	12.92	0.98	-7.9%	-28.6%	37.9%	3.8%	9.0%	A-
GDF SUEZ	46,697	6.68	6.33	15.27	13.93	0.93	-17%	28.8%	25.9%	-4.7%	-15.2%	A
EDF	42,055	4.54	4.47	10.75	10.85	0.88	-2.5%	-8.1%	22.7%	1.5%	10.7%	A+
NATIONAL GRID PLC	44,226	10.48	10.03	16.41	15.74	0.80	-3.7%	2.1%	35.6%	4.1%	18.4%	A-
EDP SA	11,862	9.40	9.16	12.92	12.62	0.81	-0.3%	-3.7%	21.7%	2.4%	11.8%	BB+
EDP RENOVAVEIS SA	4,826	10.56	9.13	42.23	33.33	0.83	-5.2%	-8.5%	70.5%	0.7%	1.6%	-
CENTRICA PLC	17,478	6.21	6.11	13.80	12.72	0.83	11.9%	-25.9%	11.0%	3.0%	12.3%	A-
FORTUM OYJ	15,893	10.44	10.99	15.90	16.34	0.80	-12.1%	79.2%	76.4%	13.7%	29.2%	A-
ENAGAS SA	6,172	10.42	10.85	15.50	15.23	0.67	-1.6%	-3.1%	81.0%	5.0%	18.5%	BBB
DRAX GROUP PLC	2,271	8.25	6.93	20.00	15.54	0.60	31.1%	-19.9%	8.8%	-4.5%	-7.9%	-
E.ON RUSSIA JSC	2,021	3.78	3.00	9.03	6.53	0.86	1.8%	-20.0%	30.1%	9.1%	11.9%	-
Average	*22,502*	*7.60*	*7.49*	*15.90*	*15.37*	*0.82*	*-2.8%*	*-6.4%*	*29.1%*	*2.2%*	*4.9%*	

Source: Bloomberg, data as of 05-01-2015.

Appendix IX: SOTP Valuation FY15

	Value (in €m)	WACC	%	Price per share	EV/EBITDA 15E
Generation	11,199	*5.3%*	17%	€ 5.80	€ 5.57
Renewables	20,149	*4.6%*	31%	€ 10.43	€ 13.87
EP	9,816	*5.5%*	15%	€ 5.08	€ 9.24
Grid	34,568	*4.7%*	53%	€ 17.89	€ 9.00
Russia	2,919	*4.6%*	4%	€ 1.51	€ 10.03
Group Management	(13,152)	*5.9%*	-20%		
Value of Operations	**65,500**				
Equity Investments	6,318				
Employee Pension Funds	(4,939)				
Assets held for sale	(1,164)				
Provisions	(24,433)				
Other Non-operating items	9,441				
Total Enterprise Value	**50,723**				
Net Debt	(22,194)				
Minorities	(1,424)				
Total Equity	**27,105**			**€ 14.03**	

Source: Analyst's estimates

Note: Other non-operating items refer to other non-operating items in the Balance Sheet, including financial investments; companies accounted for the equity method, and deferred taxes.

Financial Statements

€ mn	2012A	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E
Income Statement									
Revenue	132,093	122,450	113,332	100,122	96,792	99,990	98,462	89,861	88,343
EBITDA	**10,771**	**9,315**	**8,242**	**8,212**	**8,396**	**8,733**	**8,864**	**8,953**	**8,790**
D&A	(3,759)	(3,634)	(3,641)	(3,508)	(3,652)	(3,847)	(3,557)	(3,620)	(3,512)
EBIT	**7,012**	**5,681**	**4,601**	**4,704**	**4,745**	**4,886**	**5,307**	**5,333**	**5,277**
Financial results	(623)	(2,475)	(1,784)	(1,742)	(1,719)	(1,733)	(1,782)	(1,824)	(1,814)
EBT	3,274	3,206	2,817	2,962	3,025	3,152	3,525	3,509	3,464
Income Taxes	(698)	(703)	(1,028)	(889)	(908)	(946)	(1,058)	(1,053)	(1,039)
Minorities	(424)	(368)	(348)	(375)	(379)	(367)	(367)	(372)	(371)
Net Income*	**2,189**	**2,142**	**1,457**	**1,699**	**1,739**	**1,839**	**2,101**	**2,085**	**2,053**
Balance Sheet									
Fixed Assets	96,563	94,703	94,949	96,324	100,852	101,782	102,144	102,043	102,127
WC Assets	28,325	26,099	25,225	23,531	22,110	22,135	22,127	22,116	22,097
Other Assets	15,538	9,923	9,923	9,923	9,923	9,923	9,923	9,923	9,923
Total Assets	**140,426**	**130,725**	**130,097**	**129,778**	**132,885**	**133,840**	**134,194**	**134,082**	**134,147**
Financial Debt	25,944	23,260	22,573	22,191	22,424	23,233	23,928	23,759	23,426
WC Liabilities	21,759	19,416	19,221	18,275	19,282	18,405	18,581	18,700	18,889
Provisions	32,650	31,260	31,260	31,260	31,260	31,260	31,260	31,260	31,260
Other	21,253	20,404	20,391	20,405	20,405	20,405	20,405	20,405	20,405
Total Liabilities	**101,606**	**94,340**	**93,445**	**92,131**	**93,372**	**93,303**	**94,174**	**94,124**	**93,980**
Shareholders' Equity	**38,820**	**36,385**	**36,652**	**37,646**	**39,513**	**40,537**	**40,020**	**39,958**	**40,167**
Cashflows Statement									
NOPLAT	**5,192**	**4,236**	**3,038**	**3,293**	**3,321**	**3,420**	**3,715**	**3,733**	**3,694**
D&A	3,759	3,634	3,641	3,508	3,652	3,847	3,557	3,620	3,512
Gross Op. CF	8,951	7,870	6,678	6,801	6,973	7,267	7,272	7,354	7,206
Net CAPEX	(917)	1,193	(3,781)	(5,150)	(8,262)	(4,831)	(3,935)	(3,603)	(3,678)
NWC	2,631	(117)	679	748	2,428	(902)	184	130	208
Other changes	(1,949)	1,181	67	2	-	-	-	-	-
Total Op. CF	**8,716**	**10,127**	**3,643**	**2,402**	**1,139**	**1,534**	**3,521**	**3,881**	**3,737**
Non-Op. CF	(1,300)	(397)	(442)	7	(189)	(218)	(255)	(188)	(190)
Total FCFF	**7,416**	**9,729**	**3,202**	**2,409**	**951**	**1,316**	**3,265**	**3,693**	**3,547**
Interest paid	(1,329)	(1,823)	(1,396)	(1,354)	(1,331)	(1,345)	(1,394)	(1,436)	(1,426)
Tax shield	399	547	419	406	399	404	418	431	428
Net Debt	(3,080)	(3,508)	(687)	(381)	233	809	695	(169)	(332)
Change in Equity	(3,406)	(4,945)	(1,538)	(1,079)	(251)	(1,182)	(2,984)	(2,519)	(2,216)
Total Cash Flow from investors	**(7,416)**	**(9,729)**	**(3,202)**	**(2,409)**	**(951)**	**(1,316)**	**(3,265)**	**(3,693)**	**(3,547)**

* Net Income attributable to E.ON shareholders and adjusted for income from discontinued operations.

Disclosures and Disclaimer

Research Recommendations

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

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