RWE

Utilities / Germany

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Might Innogy become a takeover target?

Add Upside potential : 19.0%

Target Price (6 months)	20.9
Share Price	€ 17.57
Market Capitalisation €M	10,788
Price Momentum	**GOOD**
Extremes 12Months	11.2 ▶ 20.2
Bloomberg ticker	RWE GY

KEY DATA	12/15A	12/16A	12/17E	12/18E	12/19E
Adjusted P/E (x)	**10.2**	**10.3**	**9.96**	**10.0**	**8.42**
Dividend yield (%)	*0.00*	*0.00*	*2.85*	*2.85*	*2.85*
EV/EBITDA(R) (x)	5.27	6.40	6.46	6.72	6.52
Adjusted EPS (€)	**1.83**	**1.26**	**1.76**	**1.75**	**2.09**
Growth in EPS (%)	*-12.2*	*-30.9*	*39.6*	*-0.84*	*19.3*
Dividend (€)	0.00	0.00	0.50	0.50	0.50
Sales (€M)	48,599	45,833	47,488	48,517	49,958
EBITDA/R margin (%)	*14.4*	*11.8*	*11.8*	*11.4*	*11.3*
Attributable net profit (€M)	-170	-5,710	2,258	1,076	1,283
ROE (after tax) (%)	**-25.6**	**-133**	**59.9**	**23.1**	**26.0**
Gearing (%)	*203*	*269*	*87.6*	*83.5*	*76.5*

Last forecasts updated on the 08/06/2017

Benchmarks		Values (€)	Upside	Weight
DCF		21.9	25%	35%
NAV/SOTP per share		20.2	15%	20%
EV/Ebitda	*Peers*	27.9	59%	20%
P/E	*Peers*	22.0	25%	10%
Dividend Yield	*Peers*	9.66	-45%	10%
P/Book	*Peers*	9.33	-47%	5%
TARGET PRICE		20.9	19%	100%

Conflicts of interest

Corporate broking	NO
Trading in corporate shares	NO
Analyst ownership	NO
Advising of corporate (strategy, marketing, debt, etc)	NO
Research paid for by corporate	NO
Provision of corporate access paid for by corporate	NO
Link between AlphaValue and a banking entity	NO
Brokerage activity at AlphaValue	NO
Client of AlphaValue Research	NO

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Analyst
Juan Camilo Rodriguez
utilities@alphavalue.eu

@ www.alphavalue.com
+33 (0) 1 70 61 10 50
sales@alphavalue.eu

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16/06/2017 VALUATION WISE

BALTIC DRY PIPE

What looks like a US diktat to European eyes will presumably block once again the Nord Stream 2 gas pipe project to send Russian gas to Western Europe under the Baltic. The US passed a bill preventing companies with US businesses from participating in the Nord Stream 2 project. This means most big European corporates that planned this project are at risk.

The US opposes Nord Stream 2 as a form of financial sanction against Russia for invading Crimea and, subsequently, waging an underground war in eastern Ukraine. The political case is clear but it also looks like a potential US effort to thwart European demand for Gazprom gas (currently supplied via Ukraine but made unsafe due to the Ukraine/Russia political mess) and supply liquefied US shale gas instead.

Some Eastern Europe and Baltic countries are against the project as well (Poland, Slovakia, Ukraine, the Baltic states), but for different reasons, as they believe this would increase European dependence on Russian gas, although the economic twist reveals that lower gas volumes flowing through the existing pipelines would imply lower revenues for those countries. Germany, Austria, and France on the other hand are strong supporters of the project as Nord Stream 2 would increase gas volumes arriving directly to Germany without passing through Eastern countries and presumably at a lower price.

Significant European companies are involved in this much delayed project with an indicative value of €10bn. There are capital providers jointly with Gazprom as they have a vested interest in securing new gas supplies (Uniper, Engie (Add, France)…), there are engineers (pipe-layers such as Allseas) and there are oil companies (OMV (Sell, Austria), Shell (Add, UK), Wintershall/BASF (Add, Germany)). One would need to mention as well the providers of steel pipes. They may be European or not but the size of the market is good for the whole industry anyway. On top come the supply of compressors, pipe management and control, power supplies, etc. All combined, the listed European stocks with an exposure to the project weigh well more than €300bn. Adding those who would benefit from an outright cancellation (Saipem (Reduce, Italy) is supporting the South Stream alternative project) would expand that figure.

As the Nord Stream 2 project is a political point of contention between European countries (essentially Eastern European countries seeing the negatives of providing Gazprom/Russia with even more gas income), its financing has taken convoluted shapes. The latest instalment was for equity partners in Nord Stream 2 AG, the Zug-based parent company, to become lenders and Gazprom to remain as the sole equity partner. Ex equity partners becoming lenders are OMV, Shell, Wintershall, Engie and Uniper. This may be a bad idea over time if they do not recover voting rights at some stage.

On the banking side, one finds Société Générale (Buy, France) and Unicredit (Add, Italy) taking care of the financial engineering behind the project financing.

Nord Stream 2 committed

Company	Upside	PE	Market cap	
		2017	2017	
Royal Dutch Shell	8.55%	12.5 x	$M	173,432
BASF	18.7%	16.1 x	€M	78,007
Engie	12.2%	13.0 x	€M	33,401
E.on	-1.56%	13.6 x	€M	19,337
OMV	-31.5%	17.1 x	€M	15,356

12/06/2017 IDEA KICKER

RWE LED BY INNOGY (ADD, 9% UPSIDE)

With the benefit of hindsight, RWE (Add, Germany) proved smarter than E.On (Sell, Germany) when facing the disastrous impacts of the “Energiewende”. RWE sat still up until the government turmoil settled. The E.On proposal to dump its German nuclear assets into some sort of a bad bank triggered a tit-for-tat answer by

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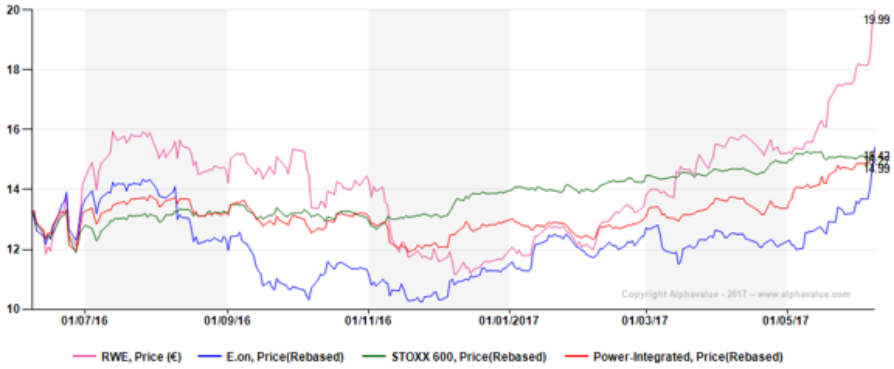
lawmakers that made historic operators liable for nuclear assets, whether transferred to a new entity or not. This killed E.On's attempt to lower its exposure to nuclear risks and commodities.

With this in mind, RWE chose the reverse option to become the "bad bank" keeping under its arm conventional generation and trading, while spinning off in ad hoc Innogy, the "good assets". As Innogy meets the overall transformation of the energy sector, earnings have a lower exposure to commodity price movements, so that a utility with growth potential becomes again a reality in Germany. The market finally warmed to the RWE strategy (see chart). So do we.

1-year performance: RWE vs (E.On, Stoxx 600 & Sector):



Innogy spin-off provides value creation for shareholders

The Innogy spin-off was a complex process that make sure that RWE would be on a safe footing after the separation. All senior debt has been shifted to Innogy (in addition to all provisions linked to the transferred activities), while RWE is debt free, but retains all of its nuclear, mining and pensions provisions.

With a market valuation for Innogy almost twice as big as that of RWE on a consolidated basis (€20.1bn vs €12.2bn respectively), this implies that RWE's assets on a stand-alone basis have a negative value: limited growth on peak assets (coal, gas, and biomass) dependent on power price movements and demand-supply shortages (which are not expected to rebound before 2019), added to narrow visibility for lignite and nuclear assets as they have a limited operating lifetime (already confirmed for nuclear and under discussions for lignite). On top of this, there is the underperforming trading division (with negative EBITDA in 2016 as the high volatility and commodity price movements caught them by surprise).

Hence, following the spin-off, RWE, net of the 77% stake in Innogy, can be seen as a type of "hedge fund" for electricity production, backed by trading activities. Under this model, the group would have volatile cash flows (and earnings), whereby investment should be limited to maintenance capex. No asset growth or expanding investment is expected, with earnings and margins entirely dependent on power price swings, capacity factors, and demand-supply spreads. Yearly provision cash outflows should be supported by the dividends of its financial assets (Innogy has been reclassified as such, despite RWE holding a majority stake). On the other hand, Innogy becomes a "new edition" infrastructure company, with more than 65% of earnings coming from regulated activities, offering a stable backbone of cash flow generation, while providing faster growth than a pure regulated player, mainly driven by renewables growth. For RWE's need, Innogy is a big dividend payer.

Is a bid slowly cooking?

Starting in 2017, the group decided to publish their financial results both on a consolidated and stand-alone basis. Innogy is booked as a purely financial asset, although it could be fully consolidated, given that RWE says it does not have any managerial control over Innogy's decisions as it has been classified as a separate entity. Would this be a first step towards a possible divestment of the Innogy stake?

Under this separate reporting model, RWE in the first quarter substantially improved its stand-alone situation, whereby 70% of the EBITDA target for the full year has already been achieved in the first quarter. Its balance sheet has been substantially reinforced with equity reaching €10.6bn (vs €3.7bn in a consolidated basis),

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while it holds a net cash position of €9.4bn (vs a net debt of €3.23bn). A stronger RWE may be in a position to envisage an Innogy transaction at satisfactory terms being in a better bargaining position.

RWE vs. Innogy: who leads whom?

Rumours around a merger between Engie-Innogy-RWE come and go. First there was the idea that Engie (Add, France) would be interested in buying a stake in Innogy. However, Engie does not have the firepower to buy the €15.4bn RWE stake in Innogy, let alone at a premium and with the 23% minorities on top. In addition, RWE needs Innogy as a financial asset to cover its long-term provisions (nuclear, mining, and pensions) on its balance sheet. Conversely, from a strategic point of view, Engie sees no benefits in a non-controlling 25% interest in a company, worth close to €5bn.
Still, a more interesting set up would involve a RWE–Engie swap over Innogy. Engie would take a majority interest in the company (up to 77%), whereby RWE would end up with a third on the newly-created company. Following this, 77% of Innogy is worth around €15.4bn, while 33% in expanded Engie would be worth €17bn before discounting synergies. There is the cash cost of buying minorities but that is within reach. Such a swap/merger would create the (or second) largest European utility in terms of market cap. (close to €50bn).

RWE with a 33% stake in expanded Engie as a credible and liquid financial asset should have enough assets to cover its provisions. RWE needs the dividend payment from those assets (either Innogy or Engie-Innogy) to cover the annual cash flows for provision payments, which are estimated at €300-500m/year. Innogy currently pays €683m in dividends, while a 33% stake on Engie would pay something close to €550m (at €0.50/share), meaning that the company would be covered on this front if the transaction gets the green light. One stumbling block though is that the French government would have to agree to decrease its controlling stake in the French utility to 28.7% of the shares from 32.6% of the voting rights which does require a change of law. Whether this is a priority in the dense political agenda of the new French government is rather uncertain.

Nuclear fuel tax ruling improves valuation
Our SOTP valuation already includes the €7bn transfer of nuclear waste provisions (including the 35% premium demanded by the German government) towards the newly-created energy fund as the payment is expected on 1 July 2017. The transfer would also have a €400m-500m positive effect in net financial expenses due to lower interest accretion in provisions (already included in our EPS model). Moreover, we already include the one-off from the reimbursement of the nuclear waste tax (€1.7bn), which improves the reported net profit for 2017, net cash flows and the balance sheet situation (equity increase and net debt reduction).

The P/Book is starting to improve as the group continues to reinforce its financial situation. The dividend yield should continue to be low, but the reinstatement of a dividend payment expected for 2017 after two blank years is already a positive. Corporate action speculation over Innogy has pushed the stock into near-

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expensive territories but, if RWE ends up as the reference shareholder of Engie, it becomes a story which is worth exploring.

Valuation Summary

Benchmarks		Weight	Values (€)	Upside
DCF (Edit and simulate)		35%	21.8	10%
NAV/SOTP per share		20%	20.3	3%
EV/Ebitda	Peers	20%	29.8	51%
P/E	Peers	10%	23.1	17%
Dividend Yield	Peers	10%	10.1	-49%
P/Book	Peers	5%	9.87	-50%
Target Price		**100%**	**21.5**	**9%**

08/06/2017 Positive effect of nuclear fuel tax and fund payment

Change in Opinion Add vs Reduce

We upgrade our recommendation from Reduce to Add

Change in Target Price € 21.4 vs 18.3 +17.0%

Change in NAV € 20.9 vs 7.65 +174%

We have decided to go forward with the integration of the payment of the nuclear fund (expected on 1 July), whereby the €7bn reduction in pension provisions positively helps our SOTP valuation. Moreover, we have included the one-off from the nuclear tax ruling (€1.7bn), which helps the reported profit of the group, along with net cash flows, the equity level and the net debt of the group.

No changes have been applied to the investment as no clear decision has been yet made on the use of the funds.

07/06/2017 German court rules in favour of utilities over nuclear fuel tax

Litigation

Fact

On 7 June, the German constitutional court decided to negate the nuclear fuel tax paid by utilities between 2011 and 2016, whereby the latter were forced to pay for 145g of nuclear fuel each time a nuclear fuel rod was exchanged, which was normally twice a year.

For this, German utilities paid around €6bn in taxes during this period (2011-16), of which E.On paid around €2.8bn, RWE paid €1.7bn and EnBW paid close to €1.5bn. These amounts which have already been paid may now be claimed back by the utilities as the constitutional court has ruled in their favour.

Uncertainty over the outcome has been raised given that in 2015 the European Court of Justice ruled that the German nuclear tax did not breach any European Union laws.

Analysis

Given that this tax focused on used nuclear fuel, the government would have used the tax to set aside additional funds to finance the long-term storage of nuclear waste in case any of the utilities became insolvent. This tax was implemented long before the E.On spin-off attempt and the Pandora box was opened by the subject of nuclear provisions. The European Court ruling was made before a decision was taken by

the German government to create a nuclear waste fund.

Following this, the creation of a nuclear fund, added to the 35% prime already asked on nuclear waste provisions already set aside by nuclear operators, may been seen as a double charge for utilities on nuclear waste as the ultimate use of the funds would have been essentially the same (both the tax and the prime on provisions). The decision may be seen as a support given by the government to utility companies and may have been part of the negotiations over the creation of the nuclear fund and the prime demanded.

The court ruling is positive for both E.On and RWE. For E.On, the reimbursement could be used to reinforce its balance sheet and equity levels as the group has substantially weakened its financial situation after the Uniper spin-off and the increase in provisions for the nuclear fund. For RWE, on the other hand, this additional cash may be used for either the reinforcement of its balance sheet (which is improving on a stand-alone after the Innogy spin-off) or to finance growth as RWE on a stand-alone basis has reduced investment to cover maintenance expenses (either through asset/company purchases or additional asset construction).

Impact

We will update our model, with an upward revision in our target price for both RWE and E.On. However, we prefer RWE to E.On as the former on a consolidated basis (included Innogy) provides growth expectations, while on a stand-alone basis, it seems that the results have bottomed out.

E.On on the other hand is a no-growth story on both an EPS and operating profit level given the much needed reinforcement of its balance sheet and the payment to the nuclear fund. The tax reimbursement may allow the group to reduce the number of assets to be sold, which is a positive, but this would come after the payment for the nuclear fund, and therefore does not affect the short-term need for cash (hybrid issuance?) to comply with the fund payment requirements.

29/05/2017 A stronger stand-alone basis improves the group’s visibility

Change in EPS

2017 : € 1.76 vs 1.68		+5.34%
2018 : € 1.75 vs 1.78		-1.75%

Given the stand-alone improvement in situation and the 70% of the company's EBITDA objectives already achieved, we have upgraded our top and bottom line forecasts, thereby positively affecting our EPS-based valuation. However, the expected end to operations for the Gundremmingen B reactor in Germany by end 2017 could have a negative impact on the group’s earnings which, added to lower hedge prices, negatively affects our 2018 EPS estimates. The expected nuclear reactor stoppage could further tighten the demand-supply balance in Germany and should push prices higher from 2019 onwards, positively helping earnings.

Change in NAV

€ 7.12 vs 13.6 -47.7%

We have adjusted our SOTP valuation, wherein the increase in minority interests and higher nuclear provisions negatively impacts our estimates, offsetting the positive effect from lower net debt. The negative effect on the SOTP should be temporary and limited to the first half of the year as the group expects to transfer €7bn of nuclear provisions to the newly-created energy fund in July 2017. Once provisions exit the company, our SOTP model derives an NAV of close to €18/share.

Change in DCF

€ 21.6 vs 16.1 +33.9%

We have upgraded our top-line expectations for the company, positively affecting the group's operating cash flows. Moreover, the addition of 2019 forecasts to our model with an expected increase in power prices in Germany from a tighter security of supply balance has positively affected our DCF valuation due to better

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margins achieved on the company's remaining operational assets and the positive effect from this on cash flows.

19/05/2017 **An RWE - Engie swap over Innogy?**

M&A /Corp. Action

Fact

Rumours of a potential transaction between Engie, RWE and Innogy are back. According to Reuters and Bloomberg, RWE and Engie are studying a transaction whereby RWE will swap a majority stake in Innogy (up to 77%) for a stake of up to a third in Engie (33%).

Analysis

The first rumours of Engie taking a minority stake in Innogy did not make much sense in our view as Engie would have no interest in buying a minority stake where it has no controlling power for something close to €4bn. However, the current merger/swap model makes much more sense as Engie would have a controlling stake in the company, while RWE would have enough financial assets to cover its provision requirements (pension, nuclear, and lignite).

For Engie, the integration of Innogy's business is in line with its new strategic goal of growth within renewables, networks and retail (services). In terms of markets, it makes sense to go for a merger as both companies are complementary: it would open up to Engie new retail markets where it has no current presence (mainly the UK and Germany), and a network business in Germany and Eastern Europe where Engie has no presence yet.

Now, in terms of valuation, Innogy's 77% is worth €14.3bn, while 33% of Engie is worth around €10.6bn at current prices. However, if merged, the newly Franco-German utility would be worth something close to €50bn, whereby the 33% would be worth €16.5bn. This would imply a 15.4% premium paid on Innogy for the transaction. Not a bad deal in our view. The Innogy-Engie merger, if completed, would be the greatest European utility in terms of market capitalisation (above both Enel and Iberdrola).

If a cash part is required as part of the deal, Engie would have the financial power to invest with its €15bn investment budget, which will be backed mainly by the disposal of the E&P business (currently in negotiations with Neptune) and is expected to bring in close to €3bn for the company.

Moreover, under the current stand-alone basis of RWE, the company needs Innogy's dividend to cover its nuclear provisions, which in the first half of 2017 should provide €683m. A third of Engie's dividend (at €0.5/share) would provide RWE with something close to €550m, which would be enough to cover the payment of provisions as they are estimated to be around €300-500m per year.

Impact

No current change in our valuation as nothing is certain yet, although we view the transaction as a positive for both companies as RWE would be able to get a good price for Innogy, while covering its provision requirements, and Engie would have additional assets under its current objective and obtain a market presence in new countries.

15/05/2017 **RWE stand-alone situation improves**

Earnings/sales releases

Fact

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A mixed start of the year for RWE with revenues decreasing by 2.7% to €13,294m, adjusted EBITDA and operating profit decreasing by 6.5% and 5.2% respectively and adjusted net income falling by 17.8% to €689m. The negative results were impacted by lower profits from the nuclear and lignite plants with values below market expectations. On a reported basis, the results are different as profit before tax increased by 45% to €1,674m and net income was raised by 10% to €946m, mainly driven by lower depreciation and financial expenses, in addition to positive one-offs.

The operating cash flows, despite still being in negative territory, have improved by 43% to -€1,113m but free cash flow still finished in negative territory to -€1,415m, pushing net debt to increase 4.4% ytd to €23,717m.

Nonetheless, the group confirms its full-year guidance with adjusted results expected to exceed last year's levels with EBITDA of €5.4-5.7bn (0% to 5.5%) and net income of €1-1.3bn (+25% to +62.5%). It also confirmed the reinstatement of a €0.5/share dividend payment.

Analysis

Operating performance

The group has provided a new divisional reporting breakdown starting from 1 January 2017. Lignite & Nuclear now covers the baseload assets in Germany. European Power covers the peak assets such as gas, hard coal and biomass in Germany, the UK, and the Netherlands/Belgium. The Supply & Trading division is responsible for the trading of energy commodities in addition to the gas midstream business. This is the basis of RWE as a stand-alone company; however, on a consolidated basis, Innogy will be included as a separate division, comprising renewables, networks and retail.

The Lignite & Nuclear division showed the main negative performance of the group as its adjusted EBITDA decreased by 48% to €213m, mainly driven by the lower margins achieved under a lower achieved price as the hedging level decreased to €31/MWh (from €35/MWh in 2016), not helped by less volumes due to temporary shutdowns. This reveals the negative pressure on baseload production and confirms our view that lower utilisation of these assets is needed.

In the European Power segment, the group has achieved a 13% increase in earnings despite the decreasing margins in the sale of electricity from both gas and coal assets. The positive effect comes mainly from cost optimisation measures in addition to an increase in both revenues and earnings from efficient short-term power plant dispatching. 90% of the spread for the assets has been already hedged by the company for 2017, with a negative effect expected by year-end from lower achieved spreads' effects on earnings. The positive results confirm our view that there should be an increased usage of peak assets in the coming year to counter the renewable energy volatility.

The Supply & Trading business showed a 13% decrease in profits, reaching €146m despite the strong operational performance of the segment, given that, on a comparative basis Q1 16 was exceptionally strong (benefiting from the disposal of a UK power plant). The group also benefited from the positive effect from gas storage price renegotiationd achieved in Q2 16, which should have a positive effect for the rest of the year.

The Innogy subsidiary showed a 4% increase in EBITDA to €1,617m and continues to be the main profit generator of the group at the consolidated level. The network business was the best-performing division of the subsidiary as it benefited from a decrease in operating and maintenance costs. The positive effect was partially offset by the renewable business as the was negatively impacted by falling production volumes from lower wind levels. The retail division was negatively impacted by the UK performance, whereby the competitive pressure in the market, added to a rise in up-front costs, continues to hurt the group's results.

Financial structure

The major difference between the group's substantial performance difference between reported (+10%) and

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adjusted (-18%) net income is mainly driven by the non-operating result of €277m (vs €30m) as this value is entirely deducted from the adjusted results. The positive effect on this area is mainly driven by an improvement in the restructuring costs (+€46m vs -€204m) from the separation between "Lignite & Nuclear" and the "European Power" segments. The separation generated a write-back for Lignite & Nuclear (recoverable amount: €1.4bn), being partially offset by impairments for European Power (recoverable amount: €0bn).

The strong improvement in operating cash flows is mainly driven by an improvement in reported net income, and lower working capital movements. However, the negative operating cash flow is mainly driven by the seasonal effect since the group had an increase in inventories in Q1 17 as the group buys the majority of its CO2 yearly certificates in the first quarter (-€2,952m). Working capital is expected to be flat by the end of the year.

On a stand-alone basis, RWE expects to provide more than half of its adjusted net income for the full year 2017 as it forecasts this to be €0.7-1.0bn (70-77% of the total result), i.e. increasing from a small loss in 2016. Such an improvement is expected despite the expected decrease in EBITDA for the full year (between -15.8% and 0%) as the group expects €0.3bn in depreciation from previously booked impairments, a €0.4bn decrease in financial expenses from lower interest accretion in provisions, and €0.2bn from less of an impact of the lower discount rate on provisions.

Even if the group confirms its 2017 guidance, the group has provided better confidence in the full-year results than previously expected, but stated that the first quarter is too early to consider changing the expectations. If we take the stand-alone basis of the company, the €1.6-1.9bn EBITDA target has already been 70% achieved if we factor in the €683m dividend payment from Innogy (Q2 17), providing a possible upward revision throughout the year if the results follow the positive trend.

The group has finalised the transfer of all senior bonds to Innogy, and it intends to apply the call of its outstanding hybrid bonds on the first call date in 2017. The improvement in the financial situation has allowed Fitch to raise its rating outlook from negative to stable, confirming the reinforcement of the company's financial structure.

Impact

Following these results, we will apply some fine-tuning to our model, but no major changes are expected in our target price. We salute the improvement of RWE on a stand-alone basis, as it reduces our concerns around the financial stability of the parent company following the separation of Innogy and the improvement of its stand-alone basis is a reassuring factor, backing our positive view on the stock.

24/04/2017 **Increasing pressure in the UK retail market**

Significant news

Fact

The Conservative Party has stated it wants to put a price cap on energy prices (both electricity and gas) if it wins the upcoming election in June 2017. The current government would like to have price controls and proposes that the country's regulator (Ofgem) determines an energy pricing system that reflects market conditions.

The government, and mainly Mrs May's ruling party, has increasing concerns that the energy market is not working properly, following the electricity price increases proposed by many of the "Big Six" in late 2016 and the depreciation of sterling, added to which is the low switching ratio between energy providers.

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Analysis

Starting in late 2016, the companies within the “Big Six” with costs in euros (Iberdrola (Scottish Power), RWE’s Innogy, E.On, and EDF) have increased the tariffs they will charge consumers after the end of the winter period. Then, EDF proposed last week a second 7% tariff increase on top of the one already proposed. Companies have supported their increases by stating the higher costs of energy and the depreciation of the British pound.

As for the British pound, this is understandable as many of the big companies have a cost structure that is based in euros, increasing the costs in euro terms. However, the major issue is on gas and electricity prices, as these have been constantly decreasing over the last five years, but the decrease in prices for the consumer has been limited. The companies have stated that they couldn’t pass on to consumers lower prices on the spot market as many of them are already hedged in advanced for their electricity production and the effect of spot price movements is limited.

However, at the end of 2016, after a substantial decrease in nuclear production in France and concerns that there may be a supply shortage in the country, prices spiked across Europe, including the UK as the country is dependent on France’s nuclear oversupply electricity production. This has been accentuated by an increase in coal prices from Chinese measures to balance supply and demand for the raw material and pushed not only spot prices but also 2017 and 2018 forwards upwards.

And this is the basis of both the government’s and Ofgem’s concerns, as the companies’ hedging positions have limited the ability to transfer lower commodity prices on to consumers, and the recent increase in prices should not impact them as drastically as they say. EDF’s second price increase within a year was just the cherry on the cake and made the government directly tackle the issue.

Impact

Within our coverage, the most exposed company is by and large Centrica, as it is one of its main profit drivers and has the higher retail market share within the “Big Six” and no network exposure. For the company, the retail business represented, in 2016, 44% of the revenues and 60% of the operation profit.

SSE also has a high exposure with a purely UK profile, but the networks side of the business provides earnings stability and supports part of the decrease in the retail business. The retail business represents 25% of the group’s revenues and 24% of the operating profit.

For the companies with a European cost basis: Iberdrola and EDF, retail (including generation) represented, in 2016, 18.7% and 13.3% respectively of their total revenues, and earnings 3% and 11.6% respectively. For RWE and E.On, revenues represent 20.2% and 20.4% of the total, and earnings 0.2% and 11.7%. Hence, on the earnings side, the greatest exposure is on E.On and EDF.

06/04/2017 Opinion change, from Reduce to Add

Change in Opinion

Add vs Reduce

Change in Target Price

€ 17.0 vs 15.3 +11.1%

We have adjusted our SOTP valuation with a slight downward revision in the conventional power and trading division’s earnings. The increase in nuclear provisions has been partially offset by a decrease in the pension ones, whereby a better than expected decrease in net debt support the NAV. The DCF has been impacted by higher operating cash flows in the coming years from better expectations on the earnings side, however this has been partially offset by higher investment mainly focused on Innogy’s assets.

Updates

We maintain a positive view on the stock following the Innogy spin-off, more clarity provided on the nuclear provision front, and confirmation on the dividend reinstatement.

Change in EPS

2016 : € 1.26 vs 1.02	+24.6%
2017 : € 1.68 vs 1.09	+54.2%

Following the better than expected results in 2016 and a strong bottom-line outlook for 2017, we have substantially revised upwards our EPS expectations as lower financial expenses mainly driven by lower provisions accrual and an improved outlook on Innogy positively affect the net income of the company.

14/03/2017 Reassuring 2017 expectations ahead of M&A rumours

Earnings/sales releases

Fact

The group has published its financial results with no major surprises as it provided its preliminary results in late February 2017 with revenues being short of expectations and reaching €45.83bn, while adjusted EBITDA decreased by 23% to €5.4bn. Net income finished on the red once again at -€5.7bn as the group booked €4.3bn of impairments in its power portfolio, the 35% risk premium of €1.8bn for the nuclear energy fund, and €0.8bn from mark-to-market of derivatives. Adjusted net income reached €777m, which represents a 30% decrease, but is slightly ahead of expectations.

In line with 2015, the group will pay no dividend payment for its common shares and a €0.13/share on its preferred ones. Net debt decreased by 10.8% to €22.71bn helped by the positive cash generated from the placement of Innogy shares.

The important news came from the guidance as it is far better than expectations with EBITDA reaching €5.4-5.7bn, representing a flat to 5% increase. However, the good news also comes from the strong net income improvement, as it is expected to reach €1-1.3bn, which implies a 25% to 62% increase in net profit. The group will reinstate a dividend of €0.5/share in 2017, which will represent a 40-50% payout ratio and which should serve as a floor for the coming years.

Analysis

The group showed a strong operating profit on its conventional generation business as it has achieved an increase in power generation production of 1.4% driven by the 16.4% increase in generation in the UK and 3.6% in Netherlands/Belgium, more than offsetting the decrease seen in Germany and Hungary/Turkey. The increased production was on top of a reduction in the installed power generation capacity, which implies that the company benefited from a better utilisation rate.

Despite the higher utilisation capacity, the low price environment continues to hurt the group as the group suffered from lower generation margins and pushed down earnings in the conventional generation division by -36.3% yoy to €1,456m. Moreover, the group expects earnings to be significantly below this in 2017 as the group should be hedged at a lower achieved price and is unlikely to benefit from the positive one-offs achieved in previous years.

Innogy's earnings decreased by 7% yoy to €4,203m as the group benefited from a previous year's revaluation of the investment in the Slovakian energy utility VSE and the income from the disposal of the network infrastructure of two offshore wind projects. The renewable business fell sharply due to lower production driven by weak wind levels in the second half of the year and the depreciation of the pound. The restructuring programme in the UK business (Npower) is advancing rapidly and the negative effects from its billing problems have been recovered, although the customer losses continue. The group expects a rebound

in 2017 earnings for the division, but at a moderate level.

The trading division's earnings finished in negative territory, despite the settlement achieved with Gazprom for gas deliveries, in which its procurement contracts will no longer expose the company to additional earnings risks in the coming years. Nonetheless, for next year, the company expects a significant increase in business profits as these should return to normal levels of around €200m/year.

Not paying any dividend payment for 2016 makes sense if one takes into account that the nuclear premium transfer would be done in 2017. The Innogy transaction allows the company to have sufficient liquid funds to pay the nuclear fund transfer while still maintaining a €3bn liquidity position after the transaction is achieved. The increased liquidity has also allowed the company to decrease its net debt level by 10.8% to €22.7bn.

On the nuclear provision side, the group has agreed to transfer to the nuclear energy fund the €6.8bn it is liable for, taking its €5bn base amount and a €1.8bn risk premium. The transfer is expected to be performed on 1 July 2017 for the full amount. Following this and taking into account that there is a lower maturity for the residual provisions (below 10 years), the calculation of the discount rate has to follow IFRS rules, taking market rates and inflation levels. As a result, the real discount rate decreased from 0.9% to -0.9%, given that the nominal discount rate was decreased from 4.5% to 0.4% and the escalation rate from 3.6% to 1.3%, and the residual provisions (after the transfer to the nuclear fund) increased by €0.9bn or +18.7% to €5.7bn.

Moreover, the objective on this front is that the company will keep enough financial assets in order to cover its medium- and long-term provisions (nuclear, mining/lignite and pensions), which should be enough to cover them by 100% for the next five years, and 75% for the next 10 years. Nuclear provisions will be recalculated like pension ones on a quarterly basis and the movements will be registered on the P&L.

Following the Innogy spin-off and the current financial structure of the company, with all the senior debt being transferred to Innogy, but still being liable for its long-term provisions, RWE can be seen as a financial portfolio with no debt, which has "volatile" cash flows from trading and generation, but where its financial investments and received dividends should allow both its provision levels and cash payments to be covered.

M&A front

According to Bloomberg, Engie may be interested in purchasing Innogy. We do not believe that RWE would like to sell the Innogy subsidiary as it is its growth pillar and the group wants to maintain a majority stake; maybe a minority stake is in the pipeline. Engie should have the firepower to purchase up to 25% for €4.75bn (with no premium), while allowing RWE to maintain a 51% stake. The supervisory board currently allows RWE to sell an Innogy stake up until RWE's holding level reaches 51%, any threshold below that level would have first to be approved by the board. Moreover, RWE does not have any short-term cash needs as the required transfer for the nuclear fund has been covered by the IPO and SPO of Innogy.

An Innogy purchase makes sense in that it would be in line with Engie's strategy towards renewables, networks and retail. With an investment envelope in sight and a greater exposure to networks, Innogy may be an interesting target, although Engie would probably go for a full or majority takeover. With the current low rate environment and the additional cash available from disposals, it may be good timing for such a transaction. It would increase Engie's regulated earnings, add an exposure to German and Eastern European networks, while being part of the "Big Six" in the UK retail market.

RWE has stated that it is taking into account strategic options to go forward, and the Uniper takeover may be part of this. If it disposes of all or part of Innogy's shares, it would largely have the financial power to buy Uniper, which would consolidate its European power generation, as the company has no exposure to German nuclear, with a reliable portfolio of peak assets to compensate for renewable volatility. Uniper is currently trading at interesting multiples (10x P/E) after E.On's spin-off and RWE could make a good deal if it sells

Updates

Innogy to buy the company.

Impact

We will integrate the results into our model with an upwards revision expected in our estimates and recommendation as the results are better than expected. Also, the guidance implies a recovery a year faster than previously expected.

On the M&A front, if the transaction goes forward on the German side, either for a majority or minority stake, we will be positive on Engie and RWE, while we maintain a negative recommendation on E.On, as its nuclear assets reduce the interest investors may have on the assets.

22/02/2017 **One-offs hurt profits; no dividend payment for common shares in 2016**

Earnings/sales releases

Fact

Prior to the FY16 results, RWE has decided to publish an unexpected trading update in which it says that the company had a net loss of €5.7bn for FY16, being impacted by multiple one-offs such as the €4.3bn impairment charges mainly attributable to the generation power portfolio. In addition to this, the group has booked the €1.8bn risk payment for nuclear waste provisions and -€0.8bn on hedging derivatives.

No dividend will be paid once again for common shareholders, but a dividend of €0.50/share will be attributed from 2017 onwards, corresponding to a 3.7% yield at current stock price levels. Preferred shares will be given a €0.13/share dividend for 2016 and €0.50/share for 2017.

Analysis

On an adjusted basis, nonetheless, RWE seems to have achieved its objectives as it has presented earnings that are on the upper side of expectations, with EBITDA reaching €5.4bn, operating profit €3.1bn and net income €800m. These results have not been audited yet.

Contrary to what EDF presented last week, the trading division of the company was one of the segments most hurt in 2016, although the negative effects have been partially offset by cost-cutting measures and efficiency programmes.

The net debt of the group is expected to decrease by €2.8bn to reach €22.7bn, mainly driven by the Innogy IPO. The restructuring of the company seems to have been performed in a good and timely manner and the disposal of Innogy shares has allowed the company to obtain value that was trapped at the consolidated level, while getting additional funds to cover the €1.8bn premium demanded by the German government for the creation of a nuclear waste fund and to transfer the risks.

We had previously expected that RWE common shareholders would receive some dividend payment for 2016 after the disposal of Innogy (€0.35/share), and a similar amount for 2017. As the 2016 results were negatively offset by the risk premium request on nuclear provisions, the reintegration of dividend payments from 2017 makes sense and these are above our expectations.

Impact

We will integrate the results into our model, with no major changes expected in our recommendation or target price, at least until the full-year results have been provided.

We will have to cut the dividend payments for 2016 but, on the other hand, we will raise our adjusted EPS for the company for 2016 as we had expected the company to finish the year at the lower end of its guidance.

Updates

On a reported basis, impairment charges, higher provisions and the negative fair value changes of derivatives would have to be included, negatively affecting the reported net profits and finishing substantially in negative territory. Nonetheless, these are one-off charges that are unlikely to be repeated in 2017.

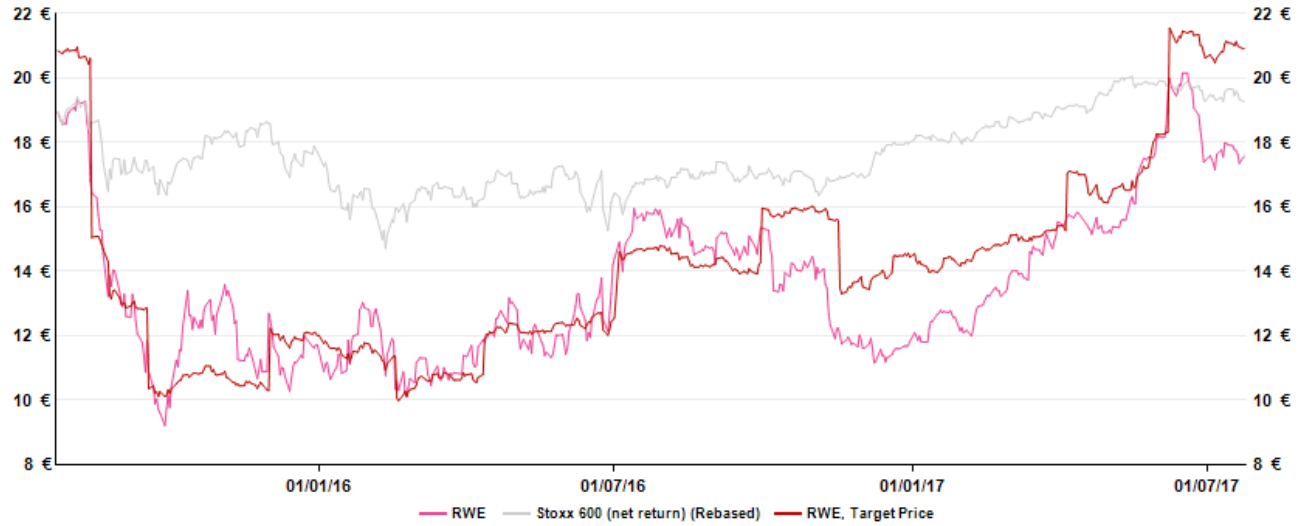
Body of research

RWE (Add)

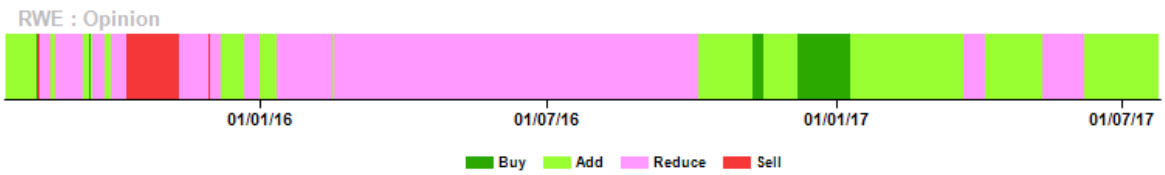
Power-Integrated / Germany

Target Price & Opinion

Stock Price and Target Price



Earnings Per Share & Opinion



Businesses & Trends

Business & Trends:
RWE is one of Europe's largest utilities generating, trading, transmitting and supplying electricity and gas. In line with the EU competition law and policy, Germany has deregulated the market for gas and electricity distribution, allowing consumers to choose freely their service provider. Today the country has more than 800 electricity and suppliers, although the "big four" (E.ON, EnBW, Vattenfall and RWE) account for 80% of the market. RWE is one of the largest utilities in Germany, #2 in the Netherlands since its 2009 acquisition of Essent and #4 in the UK. It also operates in Central and South East Europe. It generates 38% of its energy from lignite, 24% from hard coal, 18% from gas, 15% nuclear and 5% renewables.

Since Germany's energy transformation (Energiewende) accelerated in 2011 after the Fukushima accident, RWE has had to make huge impairments on its conventional power generation portfolio. It continues to pursue a course of radical cost reductions to compensate for the loss of earnings from its conventional energy portfolio. A new divisional structure was created in January 2013, including separate conventional power generation, which bundles most of the group's electricity generation into one division. The agreement for the DEA divestment on 2 March 2015 has ended the group's E&P activities, with only the mid-and-downstream gas business still remaining.

Funding strategy for future growth:
In order to counter the negative effects the German energy policy (Energiewende) had on conventional utility groups, in addition to the decision taken by the government to close half of its electricity nuclear capacity after the Fukushima accident, while limiting the expected life-time of the nuclear assets to 2022 (expected date for complete withdraw of nuclear generation from the country's energy mix), RWE has created a new subsidiary focused on areas where there is still growth potential in the market: renewables, networks and retail.

RWE, on the other hand, will keep the "Bad bank" part of the business concentrating on trading and power generation, where margins are eroding rapidly as current power price trends are not supportive.

This spin-off strategy for RWE comes after E.On's (failed?) attempt to split and the government's reaction to the proposal with a law stating that the historical operators are the ones responsible for the liabilities for the decommissioning of nuclear assets.

Under the new company structure and in order to fund the new subsidiary (called Innogy), RWE has achieved an IPO for the new company by the end of 2016. The listing of the new company was initially be focused on a 10% capital increase, in which the funds will be attributed towards growth investments. Following the investor interest in the newly traded company, RWE has decided to do a secondary public placement whereby a combined 23.2% of the Innogy has been open to investors. The new company may allow investors to focus on companies with growth expectations and a greener profile, more in line with the transition of the energy sector and its future potential.

Spin-off model structure

Source: RWE

Following the Innogy spin-off and the company's current financial structure with all the senior debt being transferred to

RWE (Add)

Power-Integrated / Germany

Businesses & Trends

Innogy, but retaining liability for long-term provisions (nuclear, mining, and pensions), RWE can be seen as a financial portfolio with no debt, which has “volatile” cash flows from trading and generation, but where its financial investments and the dividends received from Innogy should allow both its provision levels and cash payments to be covered.

Divisional Breakdown Of Revenues

	Sector	12/16A	12/17E	12/18E	12/19E	Change 17E/16 €M	Change 17E/16 of % total	Change 18E/17E €M	Change 18E/17E of % total
Supply/Distribution Networks...	Power-Distribution								
Supply Netherlands/Belgium	Power-Generation								
Supply United Kingdom	Power-Integrated								
Central Eastern Europe	Power-Integrated								
Grids / Participations	Power-Distribution	0.00 (1)	0.00	0.00	0.00	0	0%	0	0%
Supply	Power-Integrated	0.00 (1)	0.00	0.00	0.00	0	0%	0	0%
Innogy	Power-Integrated	40,149	42,156	43,421	44,724	2,007	121%	1,265	123%
Trading Gas mid-Stream	Power-Integrated	3,646	3,719	3,793	3,907	73	4%	74	7%
Upstream gas&oil RWE DEA	Power-Integrated	0.00	0.00	0.00	0.00	0	0%	0	0%
Renewables	Power-Integrated	0.00	0.00	0.00	0.00	0	0%	0	0%
Conventional Power Generation	Power-Integrated	1,967	1,553	1,242	1,267	-414	-25%	-311	-30%
Other		71.0	60.0	60.0	60.0	-11	-1%	0	0%
Total sales		**45,833**	**47,488**	**48,517**	**49,958**	**1,655**	**100%**	**1,029**	**100%**

1. Following Innogy's business strategy, the four regional units (the UK, Germany, Belgium/Netherlands, and CEE) have been merged into two operational ones (Grids and Supply).

Key Exposures

	Revenues	Costs	Equity
£	19.0%	5.0%	5.0%
Dollar	0.0%	0.0%	0.0%
Emerging currencies	0.0%	0.0%	0.0%
Long-term global warming	0.0%	2.0%	0.0%
Long-term interest rates	0.0%	3.0%	0.0%
Oil price (Brent $/bl)	2.0%	5.0%	0.0%
Power price (MWh in €)	71.0%	8.0%	65.0%

Sales By Geography

Europe	92.0%
Of which Germany	55.0%
Of which Netherlands	9.0%
Of which UK	18.0%
Of which Eastern Europe	10.0%
Other	8.0%

We address exposures (eg. how much of the turnover is exposed to the $) rather than sensitivities (say, how much a 5% move in the $ affects the bottom line). This is to make comparisons easier and provides useful tools when extracting relevant data.
Actually, the subject is rather complex on the ground. The default position is one of an investor managing in €. An investor in £ will obviously not react to a £ based stock trading partly in € as would a € based investor. In addition, certain circumstances can prove difficult to unravel such as for eg. a € based investor confronted to a Swiss company reporting in $ but with a quote in CHF... Sales exposure is probably straightforward but one has to be careful with deep cyclicals. Costs exposure is a bit less easy to determine (we do not allow for hedges as they can only be postponing the day of reckoning). How much of the equity is exposed to a given subject is rarely straightforward but can be quite telling
In addition, subjects are frequently intertwined. A $ exposure may encompass all revenues in $ pegged currencies and an emerging currency exposure is likely to include $ pegged currencies as well.
Exposure to global warming issues is frequently indirect and may require to stretch a bit imagination.

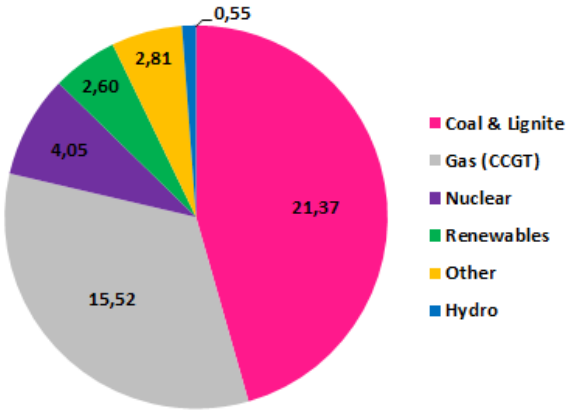
Money Making

RWE's current strategy is aimed at cost reduction. 30-40% of its conventional power plants is operating at a loss. About 3,100MW of capacity will be taken offline mid-term. This is about 6% of its total capacity and further power stations are being assessed.

The restructuring programme is expected to drive an additional €500m in annual sustainable cost savings by the end of 2017 with over 6,000 job losses. Future capex has been reduced (€4bn less for 2015-17) to €7bn, with discretionary revised down sharply and maintenance optimised. RWE is likely to focus on maintenance capex, while growth should be generated by the Innogy subsidiary. Disposals have proved slower than expected and the €7bn target proposed in 2013 was not achieved. The goal to dispose of DEA's oil&gas assets (about €5.1bn) was finally agreed on 2 March 2015. Following this, the Innogy IPO (supply/retail, renewables, and networks) was finally achieved in late 2016, providing value creation for shareholders under a separate structure in addition to some much-needed cash to reinforce the balance sheet, while contributing towards investment growth.

The group is focusing on cash flow generation based on further optimisation of its maintenance strategy, including reduction of everyday maintenance and operating expenses in order to balance the possible future risk against lower markets and narrower spreads (overhaul reduction, lower expenditure and shortening time). Furthermore, the renegotiation of external contracts and standardisation of orders for goods have been put in place to reduce the cost structure, while further optimisation of personnel costs are being put in place (3,600 reduction in headcount since 2012). These additional measures are expected partially to offset the cash flow deterioration seen in the group's conventional power generation.

RWE installed net capacity (GW):



Source: AlphaValue / RWE

Driven by a generation portfolio tilted towards conventional generation with a high dependency on thermal assets (a combined 79.5% assets), the group is very sensitive to possible negative pressure on generation margins as the integration of renewables accelerates and power prices continue to decrease due to stagnating electricity demand growth in addition to power generation oversupply (additions of renewable sources are faster than the decommissioning of conventional units).

Moreover, an expected increase in either the Emission Trading System (ETS) allowances or on individual country carbon taxes, may have a negative effect on the group's margins as the break-even costs of its thermal generation units would have to increase to cover the higher emission cost, while there is no expected mid-term increase in power prices to cover the higher production costs.

Is the dividend uncertainty over?

The dividend for 2013 was halved and the future pay-out ratio reduced from 50-60% to 40-50%. Then, starting from 2015, a new dividend policy was adopted whereby the group is expected to concentrate on a dividend policy focused on: flexibility to balance the earnings position, leverage & cash flow situation, and funding for growth projects.

Money Making

Following this, the group has decided to focus its forward-looking dividend payment on reflecting the general business situation and market conditions. Due to this and a rapid deterioration in results, in 2015 RWE decided to suspend the dividend payment for common shares and pay €0.13 for the preferred shares. A similar measure was taken for 2016 as no dividend payments were attributed to the common shares.

With the results under pressure, driven by the fall in power prices across European markets, spreads falling despite the fall in commodity prices, added to the recurring operating and technical issues faced by the company in the UK supply business (now under the Innogy umbrella), earnings expectations in the coming years were not expected to improve, providing limited visibility on future dividend payments.

However, there has been an improvement in the company's financial situation after the Innogy spin-off (both in terms of balance sheet and cash flow), despite difficult market conditions due to the fall in power prices and lower usage of conventional assets. Nonetheless, the uncertainty in the German energy policy has been dissipating as the growing concerns over nuclear provisions and the conversion of these into cash for the government energy fund is almost behind us. This has reduced the pressure for RWE both on a consolidated and a stand-alone basis: Innogy already pays a dividend, while RWE has decided to reinstate dividend payments with a €0.50/share expected for 2017, with a target of maintaining the dividend at least at this level in subsequent years.

Divisional EBITDA/R

	12/16A	12/17E	12/18E	12/19E	Change 17E/16		Change 18E/17E	
					€M	of % total	€M	of % total
Supply/Distribution Networks Germany								
Supply Netherlands/Belgium								
Supply United Kingdom								
Central Eastern Europe								
Grids / Participations	0.00 (1)	0.00	0.00	0.00	0	0%	0	0%
Supply	0.00 (1)	0.00	0.00	0.00	0	0%	0	0%
Innogy	4,203	4,413	4,546	4,682	210	102%	133	-137%
Trading Gas mid-Stream	-139	180	184	188	319	156%	4	-4%
Upstream gas&oil RWE DEA	0.00	0.00	0.00	0.00	0	0%	0	0%
Renewables	0.00	0.00	0.00	0.00	0	0%	0	0%
Conventional Power Generation	1,456	1,165	932	950	-291	-142%	-233	240%
Other/cancellations	-117	-150	-150	-150	-33	-16%	0	0%
Total	5,403	5,608	5,511	5,670	205	100%	-97	100%

1. Following Innogy's business strategy, the four regional units (the UK, Germany, Belgium/Netherlands, and CEE) have been merged into two operational ones (Grids and Supply).

Divisional EBITDA/R margin

	12/16A	12/17E	12/18E	12/19E	
Supply/Distribution Networks Germany					
Supply Netherlands/Belgium					
Supply United Kingdom					
Central Eastern Europe					
Grids / Participations					
Supply					
Innogy	10.5%	10.5%	10.5%	10.5%	
Trading Gas mid-Stream	-3.81%	4.85%	4.85%	4.80%	
Upstream gas&oil RWE DEA					
Renewables					
Conventional Power Generation	74.0%	75.0%	75.0%	75.0%	
Total	11.8%	11.8%	11.4%	11.3%	

Debt

Debt

RWE has €21.3bn of financial debt outstanding at year-end 2014 including €3.65bn in hybrid bonds which we report as debt, although RWE reports part as equity in line with IFRS standards (€1,750m and €750m bonds) and part as debt in line with the procedure followed by rating agencies (€207m, €124m and €822m bonds). However, in 2015, following a reassessment by the rating agencies of some hybrid bonds fully as debt, RWE decreased its hybrid capital investor interest on its balance sheet from €2,705m in 2014 to €950m in 2015, despite the €1,250m (split in two separate bonds: €700m and €550m) and US$500m hybrid bonds issued within the year.

RWE can finance itself using the €30bn debt issuance programme, of which the outstanding bonds from this programme amount to €16.4bn. Moreover, RWE has an unused syndicated credit line of €4bn available until 2017. The company also has US$4.9bn in commercial paper available as only US$100m has been used of the paper programme.

None of the credit facilities or financing instruments used by RWE is governed by covenants, triggers, or provisions for additional collateral. Likewise, the debt instruments used do not contain rating triggers. We do not expect any funding problems for the group.

As of November 2014, S&P's rating was BBB+ stable and Moody's Baa1 stable. Following this, in April 2015 S&P downgraded RWE's outlook from stable to negative due to adverse market conditions, depressed power prices and an adverse political environment; Moody's followed in June 2015. After this, both rating companies downgraded RWE's rating by one notch in 2015, with S&P to **BBB (negative)** and Moody's to **Baa2 (negative)**.

Debt

Funding - Liquidity

		12/16A	12/17E	12/18E	12/19E
EBITDA	€M	5,416	5,601	5,505	5,671
Funds from operations (FFO)	€M	4,340	1,662	2,204	2,300
Ordinary shareholders' equity	**€M**	**2,754**	**4,784**	**4,546**	**5,325**
Gross debt	€M	18,183	18,201	17,973	18,123
o/w Less than 1 year - Gross debt	€M	2,142	2,509	2,450	2,450
o/w 1 to 5 year - Gross debt	€M	3,417	3,518	3,199	3,199
of which Y+2	€M	1,006	996	746	746
of which Y+3	€M	997	746	778	778
of which Y+4	€M	747	778	998	998
of which Y+5	€M	667	998	677	677
o/w Beyond 5 years - Gross debt	€M	12,624	12,174	12,324	12,474
+ Gross Cash	€M	13,459	14,542	14,040	13,909
= Net debt / (cash)	**€M**	**4,724**	**3,659**	**3,933**	**4,214**
Bank borrowings	€M	1,222	1,222	1,222	1,222
Issued bonds	€M	13,500	13,500	13,500	13,500
Financial leases liabilities	€M	271	271	271	271
Other financing	€M	3,190	3,208	2,980	3,130
of which commercial paper	€M	0.00	0.00	0.00	
Undrawn committed financing facilities	€M	9,000	9,000	9,000	9,000
Gearing (at book value)	%	269	87.6	83.5	76.5
Adj. Net debt/EBITDA(R)	*x*	*1.13*	*0.91*	*0.98*	*1.00*
Adjusted Gross Debt/EBITDA(R)	*x*	*9.32*	*9.00*	*9.14*	*8.94*
Adj. gross debt/(Adj. gross debt+Equity)	*%*	*95.0*	*91.7*	*92.0*	*90.8*
Ebit cover	*x*	*0.63*	*1.47*	*1.49*	*1.53*
FFO/Gross Debt	*%*	*8.23*	*3.16*	*4.20*	*4.35*
FFO/Net debt	*%*	*91.9*	*45.4*	*56.0*	*54.6*
FCF/Adj. gross debt (%)	*%*	*-9.44*	*-1.55*	*-0.32*	*-0.31*
(Gross cash+ "cash" FCF+undrawn)/ST debt	*x*	*8.16*	*9.06*	*9.34*	*9.28*
"Cash" FCF/ST debt	*x*	*-0.26*	*-0.46*	*-0.22*	*-0.22*

Credit Risk

Date	Agency	Rate
30/06/2017	Moody's	Baa3
13/06/2016	S&P	BBB-
06/04/2017	Fitch	BBB

Valuation

Valuation

The valuation is based on the group's leading position in North Western Europe although Germany's new energy market and its impact on RWE's business model has been a negative in recent years. However, the Innogy spin-off has provided a better visibility both for the company and the energy sector in the country.

Our NAV is based on divisional multiples ranging from 9x EV/EBITDA for Conventional Generation to 7x for Trading/Midstream Gas. For the Innogy subsidiary, which includes the renewable business, Supply/Retail, and networks we use the listed valuation technique following the listing of the company at the end of 2016. Net debt levels have been stabilizing, but should start to again increase now that the Innogy spin-off has been achieved and the subsidiary is starting to invest in growth projects.

Nuclear provisions have substantially increased in recent years driven by the lower discount rates applied and a risk of a premium demand from the German government for the creation of the energy fund. However, the transfer of the nuclear waste provisions expected in July 2017 should have a positive impact in our valuation once it has been realized.

We maintain the view that oil, gas and hard coal input costs will remain low throughout 2017 and help compensate for regulatory pressures and a lower wholesale price environment, although dark spreads should continue to be under pressure and achieved prices are likely to continue their downward trend as hedges roll-over. In our view, the prospects for German power prices should improve once there is a further tightening in the country's demand-supply spread.

We apply up to a 10% discount to peer multiples driven by the group's generation portfolio being heavily weighted towards coal, lignite and nuclear and highly exposed to regulatory changes concerning carbon emissions and nuclear provision requirements. The political instability in Germany is settling down and some clarity on energy policy is starting to appear, which is a positive for the group. In addition, the uncertainty over the company's dividend policy from 2017 onwards has been reduced as Innogy should be paying a dividend and RWE will reinstate a dividend payment.

Valuation Summary

Benchmarks		Values (€)	Upside	Weight
DCF		21.9	25%	35%
NAV/SOTP per share		20.2	15%	20%
EV/Ebitda	*Peers*	27.9	59%	20%
P/E	*Peers*	22.0	25%	10%
Dividend Yield	*Peers*	9.66	-45%	10%
P/Book	*Peers*	9.33	-47%	5%
Target Price		**20.9**	**19%**	

Calculate your Target Price
Edit and modify weightings
to match your valuation principles

Valuation

Comparison based valuation

Computed on 18 month forecasts	P/E (x)	Ev/Ebitda (x)	P/Book (x)	Yield(%)
Peers ratios	12.5	8.11	1.23	5.18
RWE's ratios	10.0	6.60	2.32	2.85
Premium	0.00%	-5.00%	0.00%	0.00%
Default comparison based valuation (€)	**22.0**	**27.9**	**9.33**	**9.66**
Enel	12.8	6.70	1.27	4.98
Engie	12.4	5.80	0.81	5.18
Electricite de France	10.5	11.0	1.07	5.10
E.on	12.7	8.61	3.81	4.03
Scottish & Southern Energy	11.6	9.28	4.49	6.33
Fortum	18.8	9.56	1.00	6.73
EVN	13.5	5.39	0.88	3.33
Drax Group	41.6	7.84	0.68	3.75

RWE (Add)

Power-Integrated / Germany

DCF

Fine tune DCFs
with your own assumptions

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DCF Valuation Per Share

WACC	%	6.43	Avg net debt (cash) at book value	€M	3,796
PV of cashflow FY1-FY11	€M	12,566	Provisions	€M	32,675
FY11CF	€M	2,169	Unrecognised actuarial losses (gains)	€M	0.00
Normalised long-term growth"g"	%	2.00	Financial assets at market price	€M	15,576
Terminal value	€M	48,988	Minorities interests (fair value)	€M	4,500
PV terminal value	€M	26,277	Equity value	€M	13,449
PV terminal value in % of total value	*%*	*67.6*	Number of shares	Mio	615
Total PV	€M	38,843	Implied equity value per share	€	21.9

Assessing The Cost Of Capital

Synthetic default risk free rate	%	3.50	Company debt spread	bp	200
Target equity risk premium	%	5.00	Marginal Company cost of debt	%	5.50
Tax advantage of debt finance (normalised)	%	30.0	**Company beta (leveraged)**	**x**	**0.71**
Average debt maturity	Year	5	Company gearing at market value	%	33.9
Sector asset beta	x	0.61	Company market gearing	%	25.3
Debt beta	x	0.40	**Required return on geared equity**	**%**	**7.07**
Market capitalisation	€M	10,801	Cost of debt	%	3.85
Net debt (cash) at book value	€M	3,659	**Cost of ungeared equity**	**%**	**6.54**
Net debt (cash) at market value	€M	2,687	WACC	%	6.43

DCF Calculation

		12/16A	12/17E	12/18E	12/19E	Growth	12/20E	12/27E
Sales	€M	45,833	47,488	48,517	49,958	**2.00%**	50,957	58,534
EBITDA	€M	5,416	5,601	5,505	5,671	**2.00%**	5,784	6,644
EBITDA Margin	*%*	*11.8*	*11.8*	*11.3*	*11.4*		*11.4*	*11.4*
Change in WCR	€M	-2,597	-322	-236	-349	**2.00%**	-355	-408
Total operating cash flows (pre tax)	€M	2,029	4,529	4,519	4,572		5,429	6,236
Corporate tax	€M	323	-969	-443	-482	**2.00%**	-492	-565
Net tax shield	**€M**	**-1,507**	**-562**	**-523**	**-526**	**2.00%**	**-536**	**-616**
Capital expenditure	€M	-2,308	-2,500	-2,500	-2,500	**2.00%**	-2,550	-2,929
Capex/Sales	*%*	*-5.04*	*-5.26*	*-5.15*	*-5.00*		*-5.00*	*-5.00*
Pre financing costs FCF (for DCF purposes)	€M	-1,463	497	1,053	1,065		1,851	2,126
Various add backs (incl. R&D, etc.) for DCF purposes	€M							
Free cash flow adjusted	**€M**	**-1,463**	**497**	**1,053**	**1,065**		**1,851**	**2,126**
Discounted free cash flows	**€M**	**-1,463**	**497**	**990**	**940**		**1,535**	**1,140**
Invested capital	€	34,504	35,162	35,759	36,698		37,432	42,998

RWE (Add)

Power-Integrated / Germany

NAV/SOTP (edit)

NAV/SOTP fine tuning

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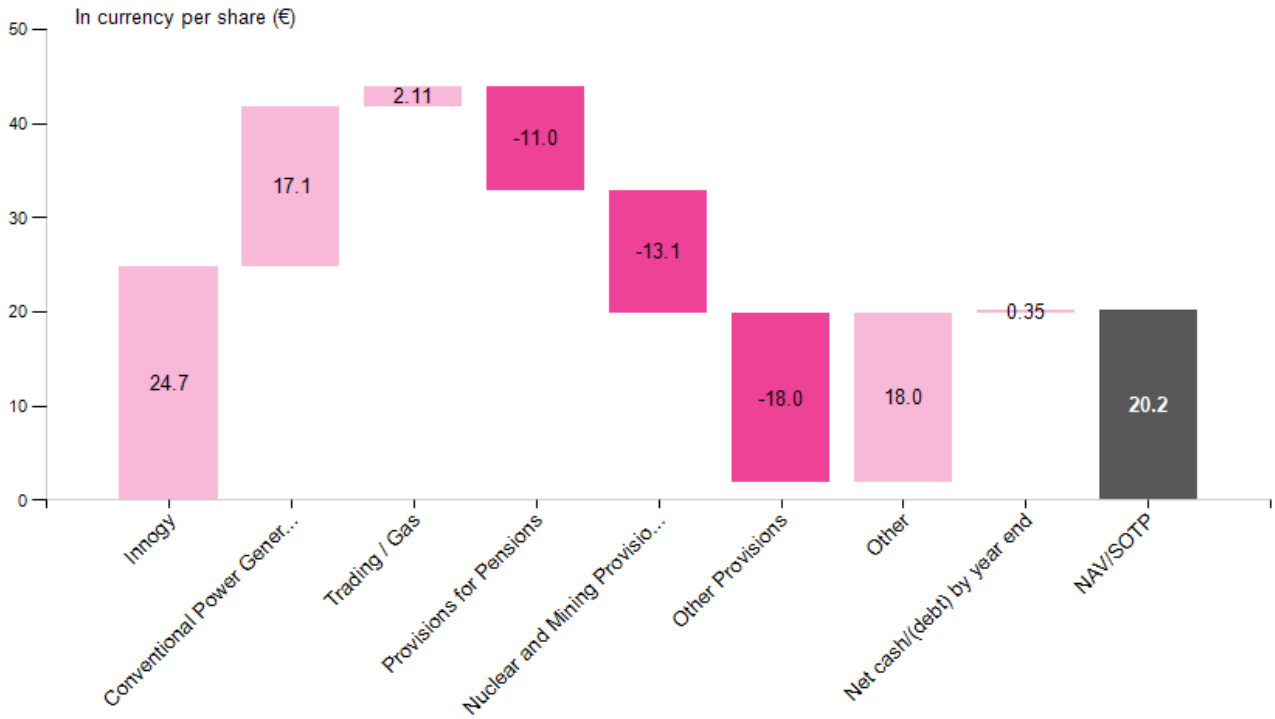
NAV/SOTP Calculation

	% owned	Valuation technique	Multiple used	Valuation at 100% (€M)	Stake valuation (€M)	In currency per share (€)	% of gross assets
Innogy	76.8%	- Listed -		19,778	15,189	24.7	124%
Conventional Power ...	100%	EV/EBITDA	10	10,500	10,500	17.1	86.1%
Trading / Gas	100%	EV/EBITDA	7	1,295	1,295	2.11	10.6%
Provisions for Pensions	100%	Risk Adj. PV		-6,760	-6,760	-11.0	-55.4%
Nuclear and Mining P...	100%	Risk Adj. PV		-8,060	-8,060	-13.1	-66.1%
Other Provisions	100%	Risk Adj. PV		-11,040	-11,040	-18.0	-90.5%
Other					11,076 (1)	18.0	90.8%
Total gross assets					**12,201**	**19.8**	**100%**
Net cash/(debt) by year end					216	0.35	1.77%
Commitments to pay							
Commitments received							
NAV/SOTP					12,416	20.2	102%
Number of shares net of treasury shares - year end (Mio)					**615**		
NAV/SOTP per share (€)					**20.2**		
Current discount to NAV/SOTP (%)					**13.0**		

1. Financial assets minus minority interests



Worth Knowing

LetterOne Group, an investment arm of the Russian oligarch Michail Fridman, has agreed to buy DEA for approximately €5.1bn. The letters of intent were signed at the end of March 2014. The transaction is still subject to approval by the authorities in several countries. The purchase received clearance by the German Economic Ministry in August 2014, but was blocked by the UK Department of Energy and Climate Change in relation to licensing the gas production assets in the North Sea, due to the political conflict and trade sanctions between Russia and the EU.

RWE has provided new full-year guidance in accordance with the current market conditions, which no longer include DEA's operating activities. The FY2015 EBITDA guidance has been reduced to a range of €6.4-6.8bn, operating profit to €3.6-3.9bn and recurrent net income to €1.2-1.4bn. The capex budget has been reduced to the maintenance level of €7bn for the 2015-17 period (previously €11bn) and is expected to be €2.5-3bn for 2015.

Energiewende, and a constantly changing energy policy:
The German **Energiewende** (which translates into "energy transition") did not just began in 2011 after the Fukushima accident, but goes back to the 1970s when anti-nuclear movements started in the country. Moreover, the major shock generated by the oil crisis then, in addition to the Chernobyl accident, accelerated the search for additional and alternative sources of energy.

In 2001, the Social Democrat and Green coalition implemented a policy of energy transformation based on the development of renewable energies and the withdrawal from nuclear power by 2021 through a transitional shutdown of the country's reactors (19).

In order to help the renewable initiative and as costs were substantially higher than the forecast revenues, the **Renewable Energy Act (EEG)** was enacted under which Germany guaranteed full-cost compensation to cover the actual development and investment charges of renewable energies in terms of size and technology. For this, the rates offered were guaranteed for 20 years at the time of the installation to protect and incentivise investment, although the rates for new systems would be reduced downwards to put price pressure on manufacturers. Following this, the European Court of Justice ruled that Feed-in -Tariffs (FiT) proposed by Germany did not constitute state aid and were therefore not considered illegal subsidies, setting the stage for the current renewable financing model.

In 2009, the CDU/FDP coalition with Angela Merkel at its head granted additional production life-time to nuclear operators since the closure of power plants was postponed until 2030. But then the Fukushima accident came, which made the German government suddenly renege on its previous decision by demanding the immediate closure of the eight oldest nuclear reactors. In addition, a transitional exit of nuclear power generation would be applied with a fully expected exit in 2022 with the stoppage of the last reactor. In order to compensate for the lost capacity and to cover for the country's security of supply during the transition period, an increase in the usage of thermal power plants would be sanctioned in the country (mainly coal and lignite), with a similar increase in carbon dioxide (CO2) emissions.

Following this, in March 2015, the German Federal Ministry of Economic Affairs and Energy presented a plan to impose a climate levy on power stations in order to reduce the country's exposure to lignite and coal electricity generation. However, the government decided to change course after many protestations throughout the country, and a new agreement was reached with the affected companies at which 2.7GW of lignite-fired power capacity will be shut down at an earlier date, but where the stations will be held on standby for four years (a **strategic reserve** plan). The decision was taken as this is a more socially acceptable measure to reduce carbon emissions in the country, while providing some assurance of future security of supply.

Following this, the government's attention has been focused on nuclear power as German policy makers have been concerned over the ability of power plant operators to meet their future waste management obligations, or whether additional measures are needed. For this, a government-backed stress test was performed to determine whether the utilities had booked sufficient provisions on their balance sheet to meet their obligations. Previous to the publication of the results, rumours were increasing that there was a funding gap, although the economic minister confirmed that the utilities have

Worth Knowing

passed the provision test.

Following the provision test, a new commission has been set up by the government in order to determine accurately the financing of the decommissioning and waste management obligations as the economic performance of the nuclear operators has been rapidly deteriorating. Based on this, the most likely scenario (which would have the lowerest impact on both taxpayers and utility groups) would be the creation of a public fund to finance both the interim and final storage of radioactive waste (especially highly radioactive nuclear waste), where nuclear operators would be liable for the dismantling of nuclear power plants, with the corresponding obligations. The issue raised on this matter not only in relation to German utilities but to all nuclear operators in France concerns the high level of the discount rate used for their provision accrual as nuclear provisions should be covered by relatively low risk assets and under the current low rate environment a 4.6% interest rate on relatively safe assets is extremely difficult to obtain.

Shareholders

Name	% owned	Of which % voting rights	Of which % free to float
RW Energie-Beteiligungsgesellschaft mbH & C0 KG	16.2%	16.2%	0.00%
BlackRock Inc (incl.ETFs)	4.28%	4.28%	4.28%
Mondrian Investment Partners Limited	3.02%	3.02%	3.02%
Vanguard Group Incorporated	2.05%	2.05%	2.05%
Norges Bank Investment Management	1.96%	1.96%	1.96%
Apparent free float			**83.9%**

RWE (Add)

Power-Integrated / Germany

Financials

Valuation Key Data

		12/16A	12/17E	12/18E	12/19E
Adjusted P/E	**x**	**10.3**	**9.96**	**10.0**	**8.42**
Reported P/E	x	-1.40	4.78	10.0	8.42
EV/EBITDA(R)	**x**	**6.40**	**6.46**	**6.72**	**6.52**
P/Book	**x**	**2.90**	**2.26**	**2.38**	**2.03**
Dividend yield	**%**	**0.00**	**2.85**	**2.85**	**2.85**
Preferred dividend yield	*%*	*0.52*	*2.00*	*2.00*	*2.00*
Free cash flow yield	*%*	*-62.4*	*-7.54*	*-1.55*	*-1.50*
Average stock price	€	13.0	17.6	17.6	17.6
Average preferred stock price	€	25.1	25.1	25.1	25.1

Consolidated P&L

		12/16A	12/17E	12/18E	12/19E
Sales	€M	45,833	47,488	48,517	49,958
Sales growth	*%*	*-5.69*	*3.61*	*2.17*	*2.97*
Sales per employee	*€th*	*776*	*805*	*829*	*854*
Purchases and external costs (incl. IT)	€M	-35,640	-37,136	-38,304	-39,492
Staff costs	€M	-4,777	-4,752	-4,707	-4,795
Operating lease payments	€M	-240	-240	-240	-240
Cost of sales/COGS (indicative)	€M				
EBITDA	€M	5,416	5,601	5,505	5,671
EBITDA(R)	€M	5,656	5,841	5,745	5,911
EBITDA(R) margin	*%*	*12.3*	*12.3*	*11.8*	*11.8*
EBITDA(R) per employee	*€th*	*95.7*	*99.0*	*98.2*	*101*
Depreciation	€M	-2,038	-2,071	-2,104	-2,134
Depreciations/Sales	*%*	*4.45*	*4.36*	*4.34*	*4.27*
Amortisation	€M	-229	-229	-229	-230
Underlying operating profit	€M	3,149	3,301	3,173	3,307
Underlying operating margin	*%*	*6.87*	*6.95*	*6.54*	*6.62*
Other income/expense (cash)	€M		1,700 (2)		
Other inc./ exp. (non cash; incl. assets revaluation)	€M				
Earnings from joint venture(s)	€M				
Impairment charges/goodwill amortisation	€M	-4,380			
Operating profit (EBIT)	€M	-1,231	5,001	3,173	3,307
Interest expenses	€M	-2,287 (3)	-1,274 (3)	-1,168 (3)	-1,160
of which effectively paid cash interest expenses	*€M*	*-609*	*-746*	*-737*	*-750*
Financial income	€M	153	200	208	215
Other financial income (expense)	€M	-2,888	-800	-784	-808
Net financial expenses	€M	-5,022	-1,874	-1,744	-1,752
of which related to pensions	*€M*		*346*	*364*	*387*
Pre-tax profit before exceptional items	€M	-6,253	3,127	1,428	1,555
Exceptional items and other (before taxes)	€M				
of which cash (cost) from exceptionals	*€M*				
Current tax	€M	-819	-969	-443	-482
Impact of tax loss carry forward	€M				
Deferred tax	€M	1,142			
Corporate tax	€M	323	-969	-443	-482
Tax rate	*%*	*17.2*	*31.0*	*31.0*	*31.0*
Net margin	*%*	*-12.9*	*4.54*	*2.03*	*2.15*
Equity associates	€M	387	300	300	435
Actual dividends received from equity holdings	*€M*				
Minority interests	€M	-167	-200	-210	-225
Actual dividends paid out to minorities	*€M*	*-335*	*-350*	*-360*	*-370*
Income from discontinued operations	€M				
Attributable net profit	€M	-5,710	2,258	1,076	1,283
Impairment charges/goodwill amortisation	€M	4,380	0.00	0.00	0.00
Other adjustments	€M	2,107	-1,173		
Adjusted attributable net profit	€M	777	1,085	1,076	1,283

2. Overpaid nuclear waste tax reimbursement
3. Including interest payments on hybrid bonds

Financials

Interest expense savings	€M				
Fully diluted adjusted attr. net profit	€M	777	1,085	1,076	1,283
NOPAT	€M	2,591	2,369	2,266	2,479

Cashflow Statement

		12/16A	12/17E	12/18E	12/19E
EBITDA	€M	5,416	5,601	5,505	5,671
Change in WCR	€M	-2,597	-322	-236	-349
of which (increases)/decr. in receivables	*€M*	*602*	*-181*	*-12.2*	*-254*
of which (increases)/decr. in inventories	*€M*	*-9.00*	*-71.1*	*-44.2*	*-112*
of which increases/(decr.) in payables	*€M*	*-691*	*196*	*122*	*101*
of which increases/(decr.) in other curr. liab.	*€M*	*-2,499*	*-267*	*-302*	*-83.2*
Actual dividends received from equity holdings	€M	0.00	0.00	0.00	0.00
Paid taxes	€M	-627	-969	-443	-482
Exceptional items	€M				
Other operating cash flows	€M	160	-750	-750	-750
Total operating cash flows	€M	2,352	3,559	4,076	4,090
Capital expenditure	€M	-2,308	-2,500	-2,500	-2,500
Capex as a % of depreciation & amort.	*%*	*102*	*109*	*107*	*106*
Net investments in shares	€M	765			
Other investment flows	€M				
Total investment flows	€M	-1,543	-2,500	-2,500	-2,500
Net interest expense	€M	-5,022	-1,874	-1,744	-1,752
of which cash interest expense	*€M*	*-609*	*-2,220*	*-2,109*	*-2,139*
Dividends (parent company)	€M	-72.0	-100	-362	-362
Dividends to minorities interests	€M	-335	-350	-360	-370
New shareholders' equity	€M	4,514			
of which (acquisition) release of treasury shares	*€M*				
(Increase)/decrease in net debt position	€M	175	18.0	-228	150
Other financial flows	€M	-2,418	2,700	1,000	1,000
Total financial flows	€M	1,255	48.3	-2,059	-1,721
Change in scope of consolidation, exchange rates & other	€M	-24.0	-24.0	-20.0	0.00
Change in cash position	€M	2,040	1,083	-503	-131
Change in net debt position	€M	1,865	1,065	-275	-281
Free cash flow (pre div.)	€M	-4,978	-815	-168	-162
Operating cash flow (clean)	€M	2,352	3,559	4,076	4,090
Reinvestment rate (capex/tangible fixed assets)	*%*	*2.70*	*2.84*	*2.77*	*2.69*

Financials

Balance Sheet

		12/16A	12/17E	12/18E	12/19E
Goodwill	€M	11,663	11,650	11,650	11,650
Contracts & Rights (incl. concession) intangible assets	€M	406	414	422	431
Other intangible assets	€M	680	650	663	676
Total intangible	€M	12,749	12,714	12,735	12,757
Tangible fixed assets	€M	24,518	24,947	25,344	25,710
Financial fixed assets (part of group strategy)	€M	2,908	2,850	2,793	2,995
Other financial assets (investment purpose mainly)	€M	1,055	1,050	1,050	1,050
of which available for sale	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
WCR	€M	-7,351	-7,029	-6,793	-6,444
of which trade & receivables (+)	*€M*	*4,999*	*5,180*	*5,192*	*5,446*
of which inventories (+)	*€M*	*1,968*	*2,039*	*2,083*	*2,195*
of which payables (+)	*€M*	*5,431*	*5,627*	*5,749*	*5,850*
of which other current liabilities (+)	*€M*	*8,887*	*8,620*	*8,319*	*8,235*
Other current assets	€M	13,804	14,080	13,798	14,212
of which tax assets (+)	*€M*	*3,337*	*3,337*	*3,337*	*3,337*
Total assets (net of short term liabilities)	€M	47,683	48,612	48,928	50,280
Ordinary shareholders' equity (group share)	€M	2,754	4,784	4,546	5,325
Minority interests	€M	4,294	4,500	4,550	4,600
Provisions for pensions	€M	6,761	6,314	6,242	6,171
Other provisions for risks and liabilities	€M	26,100	26,361	26,625	26,891
Deferred tax liabilities	€M	854	845	862	880
Other liabilities	€M	2,196	2,150	2,170	2,200
Net debt / (cash)	€M	4,724	3,659	3,933	4,214
Total liabilities and shareholders' equity	€M	47,683	48,612	48,928	50,280
Average net debt / (cash)	€M	7,398	4,191	3,796	4,074
Operating leases and rental agreement contingent obligations	€M	2,130	2,130	2,130	2,130

EV Calculations

		12/16A	12/17E	12/18E	12/19E
EV/EBITDA(R)	**x**	**6.40**	**6.46**	**6.72**	**6.52**
EV/EBIT (underlying profit)	**x**	**11.5**	**11.4**	**12.2**	**11.7**
EV/Sales	**x**	**0.79**	**0.79**	**0.80**	**0.77**
EV/Invested capital	x	1.05	1.07	1.08	1.05
Market cap	€M	7,975	10,801	10,801	10,801
+ Provisions (including pensions)	€M	32,861	32,675	32,866	33,062
+ Unrecognised actuarial losses/(gains)	€M	0.00	0.00	0.00	0.00
+ Net debt at year end	€M	4,724	3,659	3,933	4,214
+ Leases debt equivalent	€M	1,680	1,680	1,680	1,680
- Financial fixed assets (fair value) & Others	€M	15,315	15,576	15,213	15,794
+ Minority interests (fair value)	€M	4,294	4,500	4,550	4,600
= Enterprise Value	**€M**	**36,220**	**37,738**	**38,618**	**38,563**

Financials

Per Share Data

		12/16A	12/17E	12/18E	12/19E
Adjusted EPS (bfr gwill amort. & dil.)	**€**	**1.26**	**1.76**	**1.75**	**2.09**
Growth in EPS	*%*	*-30.9*	*39.6*	*-0.84*	*19.3*
Reported EPS	€	-9.29	3.67	1.75	2.09
Net dividend per share	**€**	**0.00**	**0.50**	**0.50**	**0.50**
Free cash flow per share	€	-8.10	-1.33	-0.27	-0.26
Operating cash flow per share	€	3.83	5.79	6.63	6.65
Book value per share	€	4.48	7.78	7.39	8.66
Number of ordinary shares	**Mio**	**576**	**576**	**576**	**576**
Share class 2	Mio	39.0	39.0	39.0	39.0
Ordinaries to class 2 coeff	x	1.00	1.00	1.00	1.00
Number of equivalent ordinary shares (year end)	Mio	615	615	615	615
Number of shares market cap.	Mio	614	614	614	614
Treasury stock (year end)	Mio	0.00	0.00	0.00	0.00
Number of shares net of treasury stock (year end)	Mio	615	615	615	615
Number of common shares (average)	**Mio**	**615**	**615**	**615**	**615**
Conversion of debt instruments into equity	Mio				
Settlement of cashable stock options	Mio				
Probable settlement of non mature stock options	Mio				
Other commitments to issue new shares	Mio				
Increase in shares outstanding (average)	Mio	0.00	0.00	0.00	0.00
Number of diluted shares (average)	**Mio**	**615**	**615**	**615**	**615**
Goodwill per share (diluted)	€	7.12	0.00	0.00	0.00
EPS after goodwill amortisation (diluted)	€	-5.86	1.76	1.75	2.09
EPS before goodwill amortisation (non-diluted)	€	-9.29	3.67	1.75	2.09
Actual payment	€				
Preferential dividend	€	0.13	0.50	0.50	0.50
Payout ratio	**%**	**0.00**	**13.6**	**28.6**	**24.0**
Capital payout ratio (div +share buy back/net income)	**%**	**12.9**	**33.4**	**33.7**	

RWE (Add)

Power-Integrated / Germany

Financials

Funding - Liquidity

		12/16A	12/17E	12/18E	12/19E
EBITDA	€M	5,416	5,601	5,505	5,671
Funds from operations (FFO)	€M	4,340	1,662	2,204	2,300
Ordinary shareholders' equity	**€M**	**2,754**	**4,784**	**4,546**	**5,325**
Gross debt	€M	18,183	18,201	17,973	18,123
o/w Less than 1 year - Gross debt	€M	2,142	2,509	2,450	2,450
o/w 1 to 5 year - Gross debt	€M	3,417	3,518	3,199	3,199
of which Y+2	€M	1,006	996	746	746
of which Y+3	€M	997	746	778	778
of which Y+4	€M	747	778	998	998
of which Y+5	€M	667	998	677	677
o/w Beyond 5 years - Gross debt	€M	12,624	12,174	12,324	12,474
+ Gross Cash	€M	13,459	14,542	14,040	13,909
= Net debt / (cash)	**€M**	**4,724**	**3,659**	**3,933**	**4,214**
Bank borrowings	€M	1,222	1,222	1,222	1,222
Issued bonds	€M	13,500	13,500	13,500	13,500
Financial leases liabilities	€M	271	271	271	271
Other financing	€M	3,190	3,208	2,980	3,130
of which commercial paper	€M	0.00	0.00	0.00	
Undrawn committed financing facilities	€M	9,000	9,000	9,000	9,000
Gearing (at book value)	%	269	87.6	83.5	76.5
Adj. Net debt/EBITDA(R)	*x*	*1.13*	*0.91*	*0.98*	*1.00*
Adjusted Gross Debt/EBITDA(R)	*x*	*9.32*	*9.00*	*9.14*	*8.94*
Adj. gross debt/(Adj. gross debt+Equity)	*%*	*95.0*	*91.7*	*92.0*	*90.8*
Ebit cover	*x*	*0.63*	*1.47*	*1.49*	*1.53*
FFO/Gross Debt	*%*	*8.23*	*3.16*	*4.20*	*4.35*
FFO/Net debt	*%*	*91.9*	*45.4*	*56.0*	*54.6*
FCF/Adj. gross debt (%)	*%*	*-9.44*	*-1.55*	*-0.32*	*-0.31*
(Gross cash+ "cash" FCF+undrawn)/ST debt	*x*	*8.16*	*9.06*	*9.34*	*9.28*
"Cash" FCF/ST debt	*x*	*-0.26*	*-0.46*	*-0.22*	*-0.22*

ROE Analysis (Dupont's Breakdown)

		12/16A	12/17E	12/18E	12/19E
Tax burden (Net income/pretax pre excp income)	x	0.91	0.72	0.75	0.83
EBIT margin (EBIT/sales)	%	-2.69	10.5	6.54	6.62
Assets rotation (Sales/Avg assets)	%	92.1	98.6	99.5	101
Financial leverage (Avg assets /Avg equity)	x	11.6	12.8	10.5	10.1
ROE	**%**	**-133**	**59.9**	**23.1**	**26.0**
ROA	%	-4.11	16.3	10.1	10.3

Shareholder's Equity Review (Group Share)

		12/16A	12/17E	12/18E	12/19E
Y-1 shareholders' equity	€M	5,847	2,789	4,784	4,546
+ Net profit of year	€M	-5,710	2,258	1,076	1,283
- Dividends (parent cy)	€M	-72.0	-100	-362	-362
+ Additions to equity	€M	4,514	0.00	0.00	0.00
o/w reduction (addition) to treasury shares	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
- Unrecognised actuarial gains/(losses)	€M	0.00	0.00	0.00	0.00
+ Comprehensive income recognition	€M	-1,790	-163	-951	-142
= Year end shareholders' equity	**€M**	**2,789**	**4,784**	**4,546**	**5,325**

Financials

Staffing Analytics

		12/16A	12/17E	12/18E	12/19E
Sales per staff	€th	776	805	829	854
Staff costs per employee	€th	-80.9	-80.5	-80.5	-82.0
Change in staff costs	*%*	*-0.54*	*-0.53*	*-0.93*	*1.87*
Change in unit cost of staff	*%*	*-0.07*	*-0.40*	*-0.09*	*1.87*
Staff costs/(EBITDA+Staff costs)	*%*	*46.9*	*45.9*	*46.1*	*45.8*

Average workforce	**unit**	**59,073**	**59,000**	**58,500**	**58,500**
Europe	unit	59,250	59,000	58,500	0.00
North America	unit	0.00	0.00	0.00	0.00
South Americas	unit	0.00	0.00	0.00	0.00
Asia	unit	0.00	0.00	0.00	0.00
Other key countries	unit	0.00	0.00	0.00	0.00
Total staff costs	**€M**	**-4,777**	**-4,752**	**-4,707**	**-4,795**
Wages and salaries	€M	-4,487	-4,442	-4,398	-4,486
of which social security contributions	*€M*	*-937*	*-937*	*-937*	*-956*
Equity linked payments	€M				
Pension related costs	€M	-290	-310	-310	-310

Divisional Breakdown Of Revenues

		12/16A	12/17E	12/18E	12/19E
Supply/Distribution Networks Germany	€M				
Supply Netherlands/Belgium	€M				
Supply United Kingdom	€M				
Central Eastern Europe	€M				
Grids / Participations	€M	0.00 (1)	0.00	0.00	0.00
Supply	€M	0.00 (1)	0.00	0.00	0.00
Innogy	€M	40,149	42,156	43,421	44,724
Trading Gas mid-Stream	€M	3,646	3,719	3,793	3,907
Upstream gas&oil RWE DEA	€M	0.00	0.00	0.00	0.00
Renewables	€M	0.00	0.00	0.00	0.00
Conventional Power Generation	€M	1,967	1,553	1,242	1,267
Other	€M	71.0	60.0	60.0	60.0
Total sales	**€M**	**45,833**	**47,488**	**48,517**	**49,958**

1. Following Innogy's business strategy, the four regional units (the UK, Germany, Belgium/Netherlands, and CEE) have been merged into two operational ones (Grids and Supply).

Divisional Breakdown Of Earnings

		12/16A	12/17E	12/18E	12/19E
EBITDA/R Analysis					
Supply/Distribution Networks Germany	€M				
Supply Netherlands/Belgium	€M				
Supply United Kingdom	€M				
Central Eastern Europe	€M				
Grids / Participations	€M	0.00 (1)	0.00	0.00	0.00
Supply	€M	0.00 (1)	0.00	0.00	0.00
Innogy	€M	4,203	4,413	4,546	4,682
Trading Gas mid-Stream	€M	-139	180	184	188
Upstream gas&oil RWE DEA	€M	0.00	0.00	0.00	0.00
Renewables	€M	0.00	0.00	0.00	0.00
Conventional Power Generation	€M	1,456	1,165	932	950
Other/cancellations	€M	-117	-150	-150	-150
Total	**€M**	**5,403**	**5,608**	**5,511**	**5,670**
EBITDA/R margin	%	11.8	11.8	11.4	11.3

1. Following Innogy's business strategy, the four regional units (the UK, Germany, Belgium/Netherlands, and CEE) have been merged into two operational ones (Grids and Supply).

RWE (Add)

Power-Integrated / Germany

Financials

Revenue Breakdown By Country

		12/16A	12/17E	12/18E	12/19E
Europe	%	92.0	92.0		
Of Which Germany	%	55.0	55.0		
Of Which Netherlands	%	9.00	9.00		
Of Which UK	%	18.0	18.0		
Of Which Eastern Europe	%	10.0	10.0		
Other	%	8.00	8.00		

ROCE/CFROIC/Capital Invested

		12/16A	12/17E	12/18E	12/19E
ROCE (NOPAT+lease exp.(1-tax))/(net) cap employed adjusted*	*%*	*8.00*	*7.21*	*6.81*	*7.21*
CFROIC	*%*	*-14.4*	*-2.32*	*-0.47*	*-0.44*
Goodwill	€M	11,663	11,650	11,650	11,650
Accumulated goodwill amortisation	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
All intangible assets	€M	1,086	1,064	1,085	1,107
Accumulated intangible amortisation	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
Financial hedges (LT derivatives)	€M	0.00	0.00	0.00	0.00
Capitalised R&D	€M	0.00	0.00	0.00	0.00
PV of non-capitalised lease obligations	€M	1,680	1,680	1,680	1,680
Other fixed assets	€M	24,518	24,947	25,344	25,710
Accumulated depreciation	*€M*	*60,889*	*62,960*	*65,063*	*67,197*
WCR	€M	-7,351	-7,029	-6,793	-6,444
Other assets	€M	2,908	2,850	2,793	2,995
Unrecognised actuarial losses/(gains)	€M	0.00	0.00	0.00	0.00
Capital employed after deprec. (Invested capital)	**€M**	**34,504**	**35,162**	**35,759**	**36,698**
Capital employed before depreciation	€M	95,393	98,122	100,823	103,895

Divisional Breakdown Of Capital

		12/16A	12/17E	12/18E	12/19E
Supply/Distribution Networks Germany	€M	16,601	16,601	16,601	
Supply Netherlands/Belgium	€M	2,299	2,299	2,299	
Supply United Kingdom	€M	2,394	2,394	2,394	
Central Eastern Europe	€M	4,453	4,453	4,453	
Grids / Participations	€M				
Supply	€M				
Innogy	€M				
Trading Gas mid-Stream	€M	628	628	628	
Upstream gas&oil RWE DEA	€M	-2,513	-2,513	-2,513	
Renewables	€M	4,861	4,861	4,861	
Conventional Power Generation	€M	18,988	18,988	18,988	
Other	€M	-13,207	-12,549	-11,952	36,698
Total capital employed	**€M**	**34,504**	**35,162**	**35,759**	**36,698**

Pension Risks

Pension matters

The company has slightly reduced the discount rate applied to the pension provision from 4% to 3.9% in 2013, reducing it further down in 2014 to 3.2%, while the rate of return on planned assets remains unchanged at 4.3%.

The company's workforce has been reduced by 8% in 2014, with more jobs expected to go as the group expects to shrink its administrative staff in 2015 as part of the new measures to cut costs and improve efficiencies.

Summary Of Pension Risks

		12/16A	12/17E	12/18E	12/19E
Pension ratio	**%**	**71.0**	**56.9**	**57.9**	**53.7**
Ordinary shareholders' equity	€M	2,754	4,784	4,546	5,325
Total benefits provisions	**€M**	**6,732**	**6,314**	**6,242**	**6,171**
of which funded pensions	*€M*	*6,732*	*6,314*	*6,242*	*6,171*
of which unfunded pensions	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
of which benefits / health care	*€M*	*0.00*	*0.00*	*0.00*	*0.00*
Unrecognised actuarial (gains)/losses	€M	0.00	0.00	0.00	0.00
Company discount rate	*%*	*2.00*	*2.00*	*2.00*	*2.00*
Normalised recomputed discount rate	%		1.67		
Company future salary increase	*%*	*2.65*	*2.30*	*2.30*	*2.30*
Normalised recomputed future salary increase	%		2.00		
Company expected rate of return on plan assets	*%*	*4.25*	*4.00*	*4.00*	*4.00*
Normalised recomputed expd rate of return on plan assets	%		2.00		
Funded : Impact of actuarial assumptions	**€M**		**289**		
Unfunded : Impact of actuarial assumptions	**€M**		**0.00**		

Geographic Breakdown Of Pension Liabilities

		12/16A	12/17E	12/18E	12/19E
US exposure	%				
UK exposure	%	33.0	33.0	33.0	33.0
Euro exposure	%	67.0	67.0	67.0	67.0
Nordic countries	%				
Switzerland	%				
Other	%				
Total	%	100	100	100	100

Balance Sheet Implications

		12/16A	12/17E	12/18E	12/19E
Funded status surplus / (deficit)	€M	-6,732	-6,877	-6,774	-6,673
Unfunded status surplus / (deficit)	€M	0.00	0.00	0.00	0.00
Total surplus / (deficit)	€M	-6,732	-6,877	-6,774	-6,673
Total unrecognised actuarial (gains)/losses	**€M**	**0.00**	**0.00**	**0.00**	**0.00**
Provision (B/S) on funded pension	€M	6,732	6,314	6,242	6,171
Provision (B/S) on unfunded pension	€M	0.00	0.00	0.00	0.00
Other benefits (health care) provision	€M	0.00	0.00	0.00	0.00
Total benefit provisions	**€M**	**6,732**	**6,314**	**6,242**	**6,171**

P&L Implications

		12/16A	12/17E	12/18E	12/19E
Funded obligations periodic costs	€M	-424	35.9	54.7	77.0
Unfunded obligations periodic costs	€M	0.00	0.00	0.00	0.00
Total periodic costs	**€M**	**-424**	**35.9**	**54.7**	**77.0**
of which incl. in labour costs	*€M*	*-290*	*-310*	*-310*	*-310*
of which incl. in interest expenses	*€M*	*-134*	*346*	*364*	*387*

Pension Risks

Funded Obligations

		12/16A	12/17E	12/18E	12/19E
Balance beginning of period	**€M**	**24,804**	**26,334**	**27,386**	**28,167**
Current service cost	€M	290	310	310	310
Interest expense	€M	632	438	456	469
Employees' contributions	€M	13.0	15.0	15.0	15.0
Impact of change in actuarial assumptions	€M	3,031	289	0.00	0.00
of which impact of change in discount rate	*€M*		*1,791*		
of which impact of change in salary increase	*€M*		*-1,502*		
Changes to scope of consolidation	**€M**	**278**			
Currency translation effects	€M	-1,064			
Pension payments	€M	-1,037			
Other	€M	-613			
Year end obligation	**€M**	**26,334**	**27,386**	**28,167**	**28,960**

Plan Assets

		12/16A	12/17E	12/18E	12/19E
Value at beginning	**€M**	**18,977**	**19,602**	**20,509**	**21,393**
Company expected return on plan assets	€M	498	784	820	856
Actuarial gain /(loss)	€M	1,409	-392	-410	-428
Employer's contribution	€M	637	500	458	452
Employees' contributions	€M	13.0	15.0	15.0	15.0
Changes to scope of consolidation	€M	0.00			
Currency translation effects	€M	-970			
Pension payments	€M	-1,037	0.00	0.00	0.00
Other	€M	75.0			
Value end of period	**€M**	**19,602**	**20,509**	**21,393**	**22,287**
Actual and normalised future return on plan assets	€M	1,907	392	410	428

Unfunded Obligations

		12/16A	12/17E	12/18E	12/19E
Balance beginning of period	**€M**	**5,842**	**0.00**	**0.00**	**0.00**
Current service cost	€M		0.00	0.00	0.00
Interest expense	€M		0.00	0.00	0.00
Employees' contributions	€M				
Impact of change in actuarial assumptions	€M		0.00	0.00	0.00
of which Impact of change in discount rate	*€M*		*0.00*		
of which Impact of change in salary increase	*€M*		*0.00*		
Changes to scope of consolidation	€M				
Currency translation effects	€M				
Pension payments	€M				
Other	€M	-5,842			
Year end obligation	**€M**	**0.00**	**0.00**	**0.00**	**0.00**

Governance & Management

Governance & Management

As RWE is a German-listed company, it is primarily ruled by the German Stock Corporation Act (AktG) and the German Corporate Governance Code. In line with its statutory regulations, RWE has a *dual governance system*: a strict separation between the Executive and Supervisory Boards.

At its meeting in September 2015, the supervisory board of RWE resolved, for the first compliance period defined in the German Act on Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector (30 June 2017), a target quota of women on the executive board of at least one woman.

After a capital measure taken in December 2013, RWE's statuatory capital amounts to €1,574m divided into 575.7m common shares and 39m preferred shares. The common and preferred shares are no-par-value bearer share certificates.

RWEB Gmbh (RW Energie-Beteiligungsgesellschaft mbH & Co KG) is the single largest shareholder of the company (above 15%) as it corresponds to the position where many of the shares owned by German municipalities are pooled.

Governance parameters

	Yes ✔ / No ✘	Weighting
One share, one vote	✘	25%
Chairman vs. Executive split	✔	15%
Chairman not ex executive	✔	5%
Independent directors equals or above 50% of total directors	✘	10%
Full disclosure on mgt pay (performance related bonuses, pensions and non financial benefits)	✔	10%
Disclosure of performance anchor for bonus trigger	✘	10%
Compensation committee reporting to board of directors	✔	10%
Straightforward, clean by-laws	✘	15%
Governance score	40	100%

Existing committees

- ✔ Audit / Governance Committee
- ✔ Compensation committee
- ✘ Financial Statements Committee
- ✘ Litigation Committee
- ✔ Nomination Committee
- ✘ Safety committee
- ✘ SRI / Environment

Management

Name		Function	Birth date	Date in	Date out	Compensation, in k€ (year) Cash	Equity linked
Rolf Martin SCHMITZ	M	CEO	1957	2009		979 (2016)	1,112 (2016)
Markus KREBBER	M	CFO	1973	2016		256 (2016)	211 (2016)

RWE (Add)

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Governance & Management

Board of Directors

Name			Indep.	Function	Completion of current mandate	Birth date	Date in	Date out	Fees / indemnity, in k€ (year)	Value of holding, in k€ (year)
Werner BRANDT	M		✓	President/Chairman of th...		1954	2013		264 (2016)	(2016)
Frank BSIRSKE	M		✗	Deputy Chairman		1952	2001		200 (2016)	(2016)
Dagmar MÜHLENFELD	F		✗	Member		1951	2005		120 (2016)	(2016)
Hans-Peter KEITEL	M		✓	Member		1947	2013		120 (2016)	(2016)
Ulrich SIERAU	M		✓	Member		1956	2011		140 (2016)	(2016)
Reiner BÖHLE	M		✗	Member		1960	2011		120 (2016)	(2016)
Sandra BOSSEMEYER	F		✗	Member		1965	2016		84.0 (2016)	(2016)
Arno HAHN	M		✗	Member		1962	2012		140 (2016)	(2016)
Andreas HENRICH	M		✗	Member		1956	2016		70.0 (2016)	(2016)
Martina KOEDERITZ	F		✗	Member		1964	2016		70.0 (2016)	(2016)
Monika KREBBER	F		✗	Member		1962	2016		84.0 (2016)	(2016)
Harald LOUIS	M		✗	Member		1967	2016		84.0 (2016)	(2016)
Peter OTTMAN	M		✗	Member		1951	2016		84.0 (2016)	(2016)
Günther SCHARTZ	M		✗	Member		1962	2016		84.0 (2016)	(2016)
Erhard SCHIPPOREIT	M		✗	Member		1948	2016		126 (2016)	(2016)
Ralf SIKORSKI	M		✓	Member		1961	2014		140 (2016)	(2016)
Marion WECKES	F		✓	Member		1975	2016		98.0 (2016)	(2016)
Leonhard ZUBROWSKI	M		✗	Member		1961	2014		120 (2016)	(2016)
Monika KIRCHER	F		✓	Member		1957	2016		21.0 (2016)	(2016)
Wolfgang SCHÜSSEL	M		✓	Member		1945	2010		134 (2016)	(2016)

RWE (Add)

Power-Integrated / Germany

Governance & Management

Human Resources

Accidents at work	Human resources development	Pay	Job satisfaction	Internal communication
25% Of H.R. Score	35% Of H.R. Score	20% Of H.R. Score	10% Of H.R. Score	10% Of H.R. Score

HR Breakdown

		Yes ✓ / No ✗	Rating
Accidents at work	**25%**		**25/100**
Set targets for work safety on all group sites?	40%	✓	10/100
Are accidents at work declining?	60%	✓	15/100
Human resources development	**35%**		**28/100**
Are competences required to meet medium term targets identified?	10%	✓	4/100
Is there a medium term (2 to 5 years) recruitment plan?	10%	✗	0/100
Is there a training strategy tuned to the company objectives?	10%	✓	4/100
Are employees trained for tomorrow's objectives?	10%	✓	4/100
Can all employees have access to training?	10%	✓	4/100
Has the corporate avoided large restructuring lay-offs over the last year to date?	10%	✓	4/100
Have key competences stayed?	10%	✓	4/100
Are managers given managerial objectives?	10%	✓	4/100
If yes, are managerial results a deciding factor when assessing compensation level?	10%	✓	4/100
Is mobility encouraged between operating units of the group?	10%	✗	0/100
Pay	**20%**		**20/100**
Is there a compensation committee?	30%	✓	6/100
Is employees' performance combining group performance AND individual performance?	70%	✓	14/100
Job satisfaction	**10%**		**0/100**
Is there a measure of job satisfaction?	33%	✗	0/100
Can anyone participate ?	34%	✗	0/100
Are there action plans to prop up employees' morale?	33%	✗	0/100
Internal communication	**10%**		**10/100**
Are strategy and objectives made available to every employee?	100%	✓	10/100
		Human Ressources score:	**83/100**

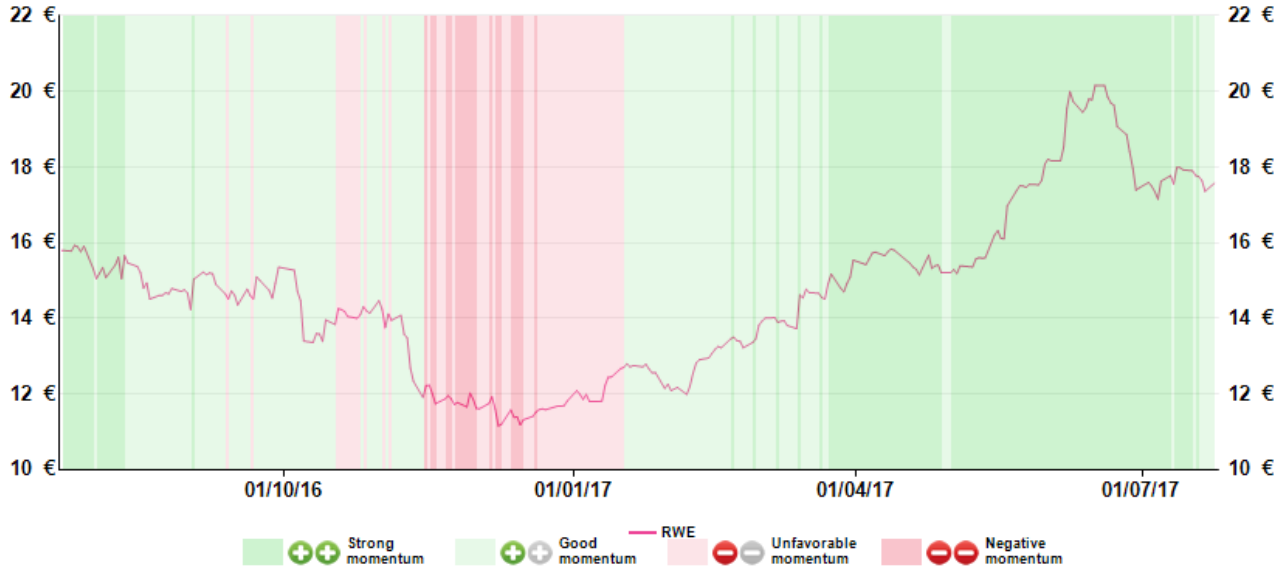
HR Score

RWE (Add)

Power-Integrated / Germany

Graphics

Momentum



: Strong momentum corresponding to a continuous and overall positive moving average trend confirmed by volumes

: Relatively good momentum corresponding to a positively-oriented moving average, but offset by an overbought pattern or lack of confirmation from volumes

: Relatively unfavorable momentum with a neutral or negative moving average trend, but offset by an oversold pattern or lack of confirmation from volumes

: Strongly negative momentum corresponding to a continuous and overall negative moving average trend confirmed by volumes

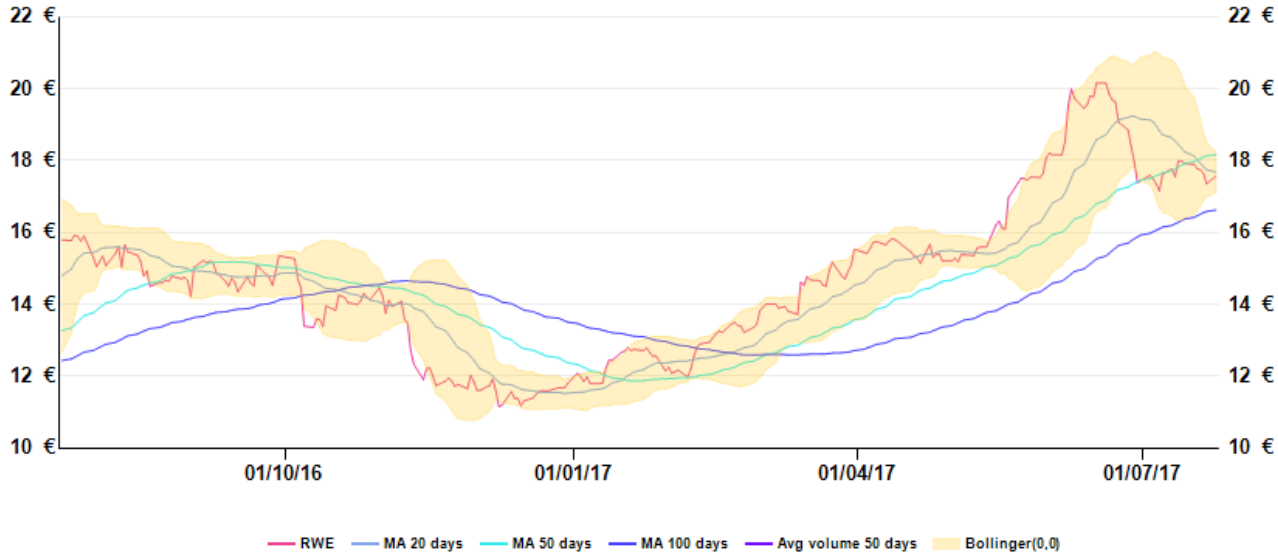
Momentum analysis consists in evaluating the stock market trend of a given financial instrument, based on the analysis of its trading flows.
The main indicators used in our momentum tool are simple moving averages over three time frames: short term (20 trading days), medium term (50 days) and long term (150 days). The positioning of these moving averages relative to each other gives us the direction of the flows over these time frames.
For example, if the short and medium-term moving averages are above the long-term moving average, this suggests an uptrend which will need to be confirmed. Attention is also paid to the latest stock price relative to the three moving averages (advance indicator) as well as to the trend in these three moving averages - downtrend, neutral, uptrend - which is more of a lagging indicator.
The trend indications derived from the flows through moving averages and stock prices must be confirmed against trading volumes in order to confirm the signal. This is provided by a calculation based on the average increase in volumes over ten weeks together with a buy/sell volume ratio.

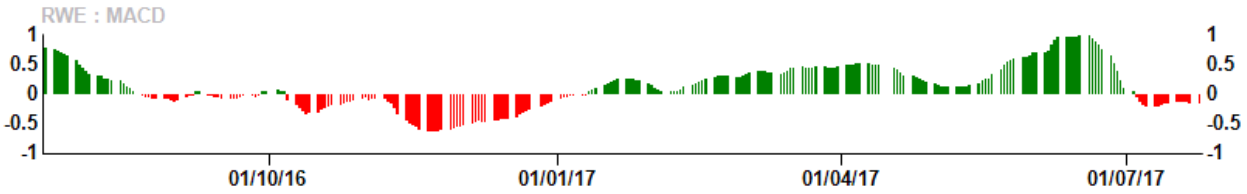
RWE (Add)

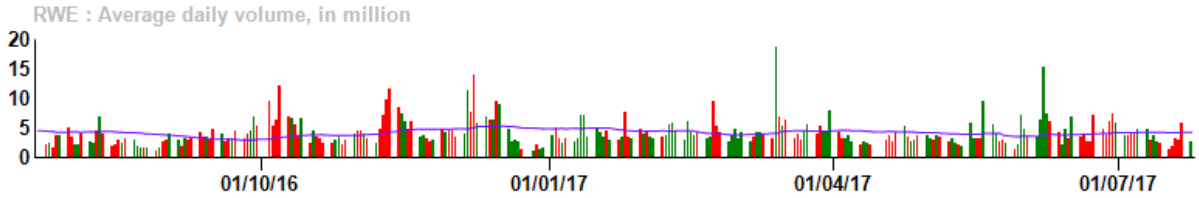
Power-Integrated / Germany

Graphics

Moving Average MACD & Volume





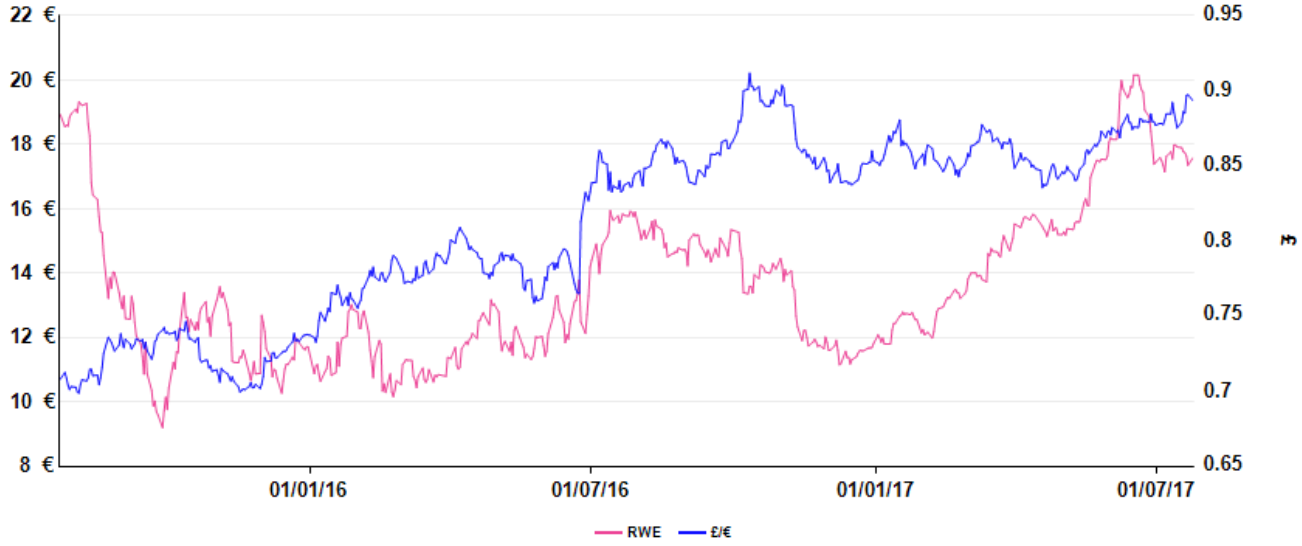


RWE (Add)

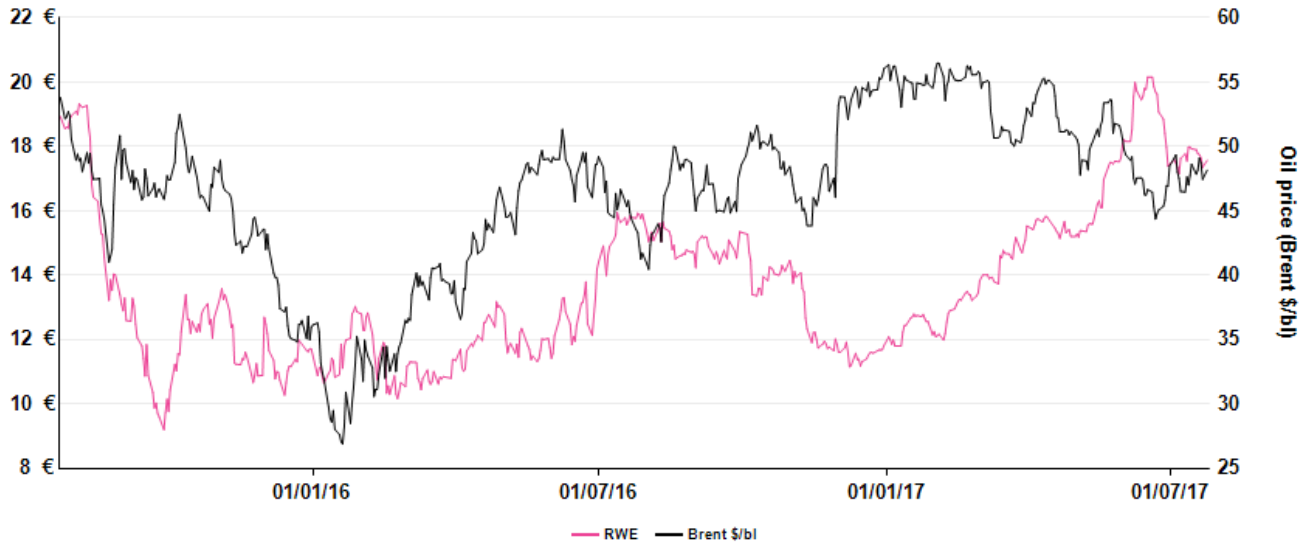
Power-Integrated / Germany

Graphics

£/€ sensitivity



Brent $/bl sensitivity

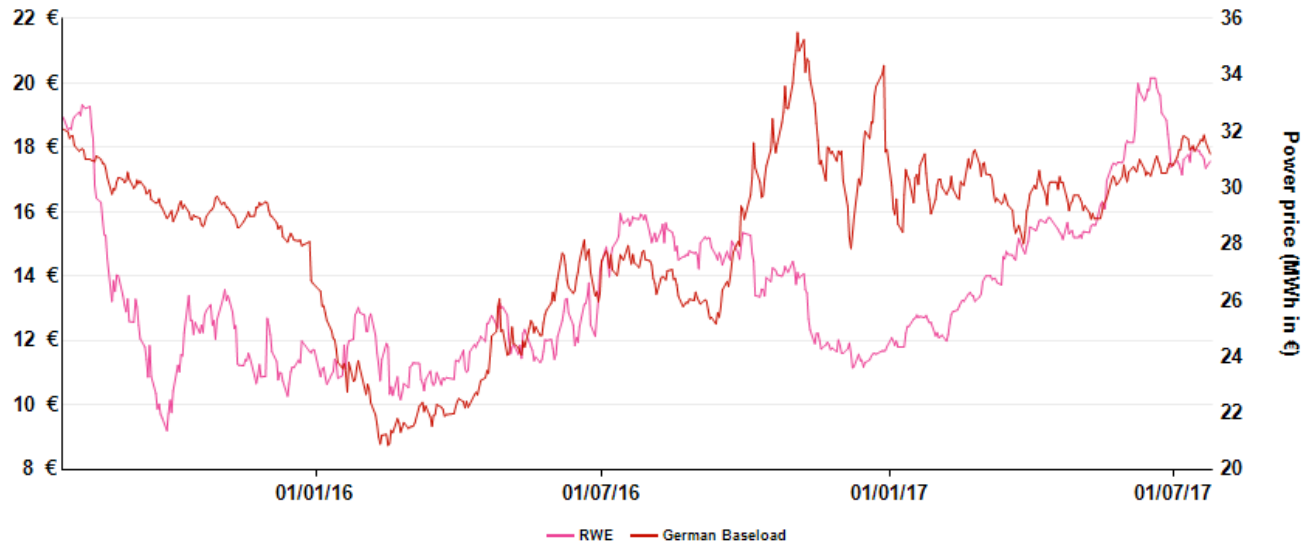


RWE (Add)

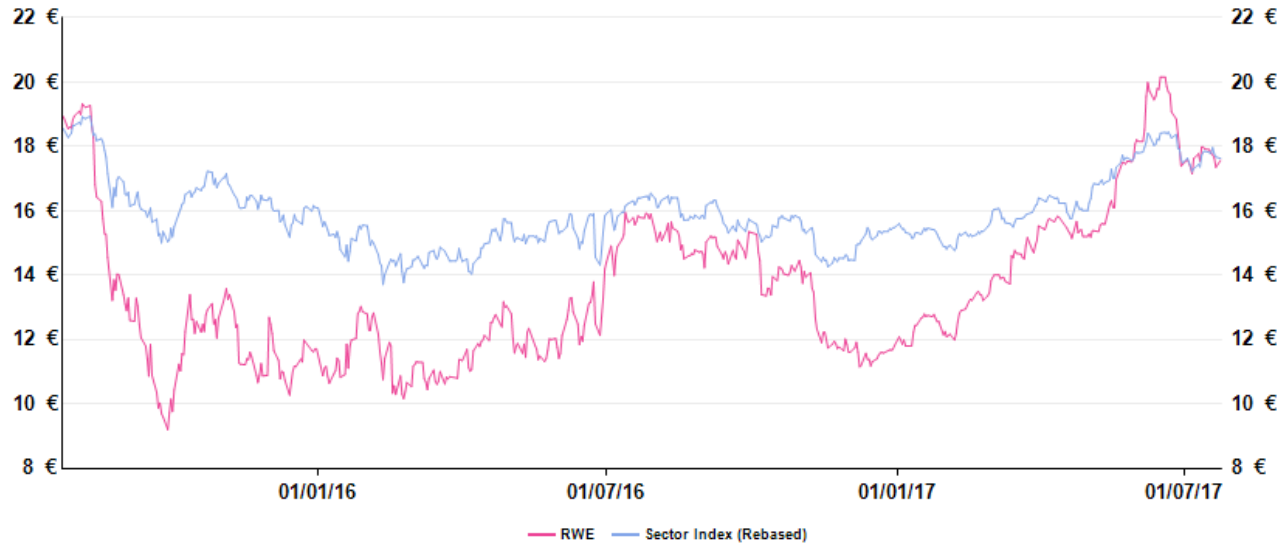
Power-Integrated / Germany

Graphics

German Baseload sensitivity



Sector Utilities



RWE (Add)

Power-Integrated / Germany

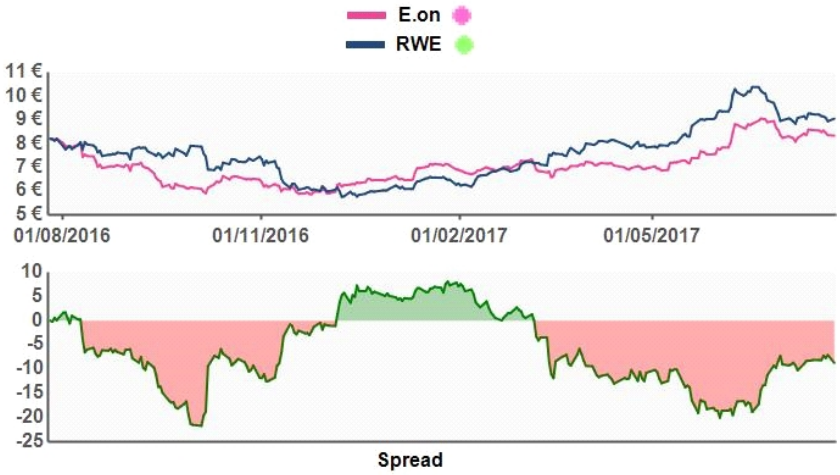
Pair Trades

AlphaValue Pair Trades tool helps highlight two stocks which have the same business and market profiles but performed differently over recent calendar periods.

E.on / RWE

Ratio	12 Months Highest	12 Months Lowest	1/Ratio	Rel. Perf 1D	Rel. Perf 1W	Rel. Perf 2W	Rel. Perf 1M	Rel. Perf 2M	Rel. Perf 3M	Rel. Perf 6M	Rel. Perf 1Y
0.47	0.57	0.40	2.11	-1.5%	-0.7%	0.1%	1.5%	8.6%	6.1%	-19.4%	-8.7%

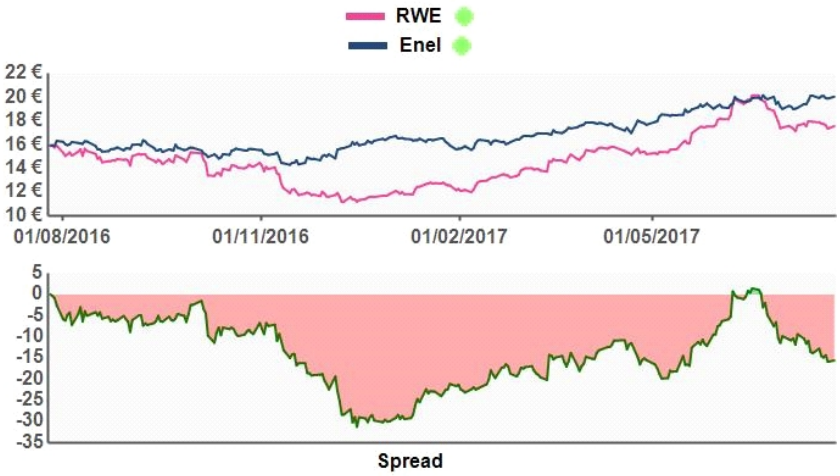
	E.on	RWE
Momentum	Strong	Good
Upside	2.21%	19.0%
Opinion	Reduce	Add
PE 17	12.9 x	9.96 x
PE 18	12.6 x	10.0 x
Yield 17	3.60%	2.85%
Yield 18	4.38%	2.85%
EBIT margin 17	15.7%	10.5%
EBIT margin 18	8.20%	6.54%



RWE / Enel

Ratio	12 Months Highest	12 Months Lowest	1/Ratio	Rel. Perf 1D	Rel. Perf 1W	Rel. Perf 2W	Rel. Perf 1M	Rel. Perf 2M	Rel. Perf 3M	Rel. Perf 6M	Rel. Perf 1Y
3.62	4.17	2.85	0.28	0.4%	-2.4%	-4.3%	-8.9%	-4.0%	0.9%	16.0%	-14.4%

	RWE	Enel
Momentum	Good	Strong
Upside	19.0%	16.0%
Opinion	Add	Add
PE 17	9.96 x	13.5 x
PE 18	10.0 x	12.2 x
Yield 17	2.85%	4.53%
Yield 18	2.85%	5.35%
EBIT margin 17	10.5%	12.7%
EBIT margin 18	6.54%	13.1%



Sector review

RWE (Add)

Power-Integrated / Germany

Power-Integrated Changes and updates

Analyst

Mail : utilities@alphavalue.eu

Juan Camilo Rodriguez

Sector Overview

MARKET BASICS	SECTOR	AV UNIVERSE
COMPANIES	12	469
MARKET CAP	€M 230,278	€M 9,407,140
UPSIDE	9.04%	6.00%
PRICE MOMENTUM	Good	GOOD
PERF. YTD	13.88%	9.06%
PE 2017	13.1 x	16.6 x
DIV. YIELD 2017	4.93%	3.40%
EARN GROWTH 2017/2016	-46.0%	17.4%

Opinion Change

UPGRADES	Reco	Old Reco	Target	Upside
07/07 Iberdrola	Add	Reduce	€ 7.35	9.68%
07/07 Hera	Buy	Add	€ 3.29	18.2%
12/06 E.on	Reduce	Sell	€ 8.52	2.21%
08/06 RWE	Add	Reduce	€ 20.9	19.0%
20/01 Scottish & Southern Energy	Add	Sell	1,629 p	12.1%
DOWNGRADES	**Reco**	**Old Reco**	**Target**	**Upside**
08/07 Verbund	Reduce	Add	€ 17.9	3.11%
25/05 EVN	Reduce	Add	€ 12.8	-0.72%
23/05 Enel	Add	Buy	€ 5.64	16.0%
03/05 Electricite de France	Sell	Reduce	€ 7.96	-8.48%
29/03 EDP	Add	Buy	€ 3.30	11.2%

Eps Change

UPGRADES	New	Old	Var.	Reco
18/07 Verbund	€ 0.87	€ 0.80	8.13%	Reduce
19/06 Enel	€ 0.36	€ 0.35	4.06%	Add
14/06 Hera	€ 0.16	€ 0.15	5.34%	Buy
12/06 E.on	€ 0.65	€ 0.60	7.00%	Reduce
08/06 Iberdrola	€ 0.45	€ 0.42	7.29%	Add
DOWNGRADES	**New**	**Old**	**Var.**	**Reco**
14/07 EDP	€ 0.25	€ 0.26	-1.91%	Add
10/07 Engie	€ 1.05	€ 1.07	-1.61%	Add
06/02 Fortum	€ 0.72	€ 0.79	-8.75%	Reduce
27/01 EVN	€ 0.91	€ 1.27	-28.1%	Reduce
20/01 Scottish & Southern Energy	124 p	127 p	-1.92%	Add

Recent publications & Updates

FORTUM - Jul 20
Weak second quarter eclipses strong start to the year; Russia shines again

IBERDROLA - Jul 20
Slight recovery in Q2, but not enough: Spain and the UK weigh

VERBUND - Jul 18
A good use of volatility

EDP - Jul 14
A weak start of the year

ENGIE - Jul 10
Add recommendation reaffirmed

ELECTRICITE DE FRANCE - Jul 04
Hinkley Point C risks

ELECTRICITE DE FRANCE - Jun 28
ASN approves the EPR Flamanville reactor vessel, under specific conditions

ENEL - Jun 19
Focus on EPS growth

HERA - Jun 14
The positive trend should continue

E.ON - Jun 12
The double nuclear effect: tax reimbursement and fund transfer

RWE - Jun 08
Positive effect of nuclear fuel tax and fund payment

IBERDROLA - Jun 08
Challenging start of the year limits the group's upside potential

E.ON - Jun 07
German court rules in favour of utilities over nuclear fuel tax

RWE - Jun 07
German court rules in favour of utilities over nuclear fuel tax

EDP - Jun 05
EDP under investigation for alleged corruption over CMEC

Performance Drivers

The power integrated industry regroups companies within generation, distribution, transmission, and alternative energy, including both electricity and gas services. Groups involved in two or more activities will be included in the sector, i.e. those with some type of vertical integration.

1.1. An oligopoly with government intervention as consumer welfare is paramount

The power and electricity sector is characterised as an oligopoly business due to:
1) high barriers to entry,
2) enormous amounts of capital required,
3) a small number of players per country (4 to 6 on average), and
4) political decisions required.

But such characteristics require obligations as the power and electricity business is considered a public service, even in countries where the market has been completely liberalised (e.g. the UK). Hence, the government intervenes in any decisions concerning such companies. A minimum service is seen as a "fundamental right" which utility companies, even if unprofitable and privately owned, are expected to deliver. So that governments are:

1) trying to preserve consumer welfare via increased competition: Both local authorities and EU regulations are driving increased competition in both the generation and retail part of the business, with regulators highly attentive to consumer welfare. The lack of pass-on savings from lower wholesale prices to consumers is raising additional flags.
2) Regulating the earnings that network operators can produce: Distribution and transmission activities are natural monopolies, which make them highly regulated. Allowed revenues, investment requirements and dividend distribution are all taken into account to calculate their earnings (based on government 10-year yields, inflation levels and growth expectations).

1.2. Limited strategy adaptability & cost-cutting capacities

Utility groups have only limited adaptability in terms of strategy and cost-cutting measures due to:
1) the long-term binding investment needed,
2) the high capital required,
3) lack of flexibility due to a high level of over-staffing and strong unions inherited from past State ownership,
4) investment decisions require approval by governments or the EU authorities thereby deterring adaptation to changing measures,
5) Moreover, the sector is highly sensitive to external factors beyond its control (commodity price movements, policy changes, regulation, government elections).

1.3. Very high indebtness requires active liability management

Power integrated stocks are mainly driven by capital expenditure and financial expenses with some specific characteristics linked to these: a heavy fixed asset profile with reduced short-term adaptability, a heavy debt structure with financial debt around (or above) the equity value.

Increased maintenance costs under IFRS accounting are allowed to be booked as investment to maintain profit margins, transferring the negative pressure from the P&L to the cash flow statement, making companies more aware of cash flow management. The high debt profile of utility groups makes active liability management as important as a proper business plan where on average more than 30% of a company's EBIT is spent on financial expenses. The low rate environment has supported net income by debt renegotiations at lower levels.

Power-Integrated Story

Need to know

2.1. The EU Emission Trading Scheme (ETS) to combat CO2

Global warming has raised issues concerning carbon dioxide emissions which, added to lower wholesale prices, is leading to the mothballing or closure of conventional energy sources despite their low generation costs. In response, in 2005, the European Union introduced the Emission Trading Scheme (EU ETS) launched as a programme to combat climate change and support the EU climate policy.

The model was created under the “cap and trade” principle, where a given plant must monitor and then report their CO2 emissions, making sure there are sufficient allowances to cover their emission needs. The allowances for emissions are auctioned, allocated and traded between units as needed. If a registered unit has reduced its greenhouse gas emissions, it can sell its leftover allowances to units that require them.

In order to reduce greenhouse gas emissions and reach its 43% reduction target by 2030, the European Union has proposed new measures to balance the ETS system, reduce oversupply, and increase allowance prices overtime: i) a “Market Stability Reserve” plan, which would be established in 2018 and should be operational for two years (2019 and 2020). The reserve should function by triggering adjustments to the annual auction volumes, an amount close to 12% of the total allowances in circulation should be deducted each year and placed in the reserve; and ii) the EU parliament voted on 15 February 2017 in favour of the changes in the Commission’s proposal of July 2015 to strengthen the Market Stability Reserve, under which an additional permit supply reduction of 2.2% per annum would be applied for the period 2021 to 2030 (phase 4).

The multi-step approach is taken in order to provide better visibility and a medium-term improvement in ETS prices. More importantly, it provides a comfortable timeframe for countries to adapt their industries towards a higher ETS level. A higher ETS price environment would certainly change the competitive profile of generation assets, as higher marginal costs would be required for technologies with elevated emission levels. At the end, baseload technologies such as nuclear and hydro should benefit the most from the transition into a higher ETS environment. For peak production, pumped storage and gas would be preferred over coal driven by their lower emission levels. Higher ETS prices should support electricity prices as the higher marginal costs would affect the merit order on peak assets.

2.2. Subsidies for renewables to lower CO2 and to conventional generation to maintain power production stability

The fluctuation in energy produced from renewable sources has made power generation increasingly unstable in terms of network balancing and its proper management, increasing volatility and even pushing spot prices into negative territory. Moreover, the instability of the generation produced has raised concerns over future supply security as lower wholesale prices make many thermal generation facilities uncompetitive, forcing their mothballing or closure. To contend with this, governments are introducing capacity market or strategic reserve mechanisms to maintain assets operational at a future date.

A vicious subsidy circle has thus been created: on one side, subsidies are needed to cover the break-even price of renewable technologies and make such investments profitable (even if subsidies are falling rapidly through greater efficiencies and lower costs). This has created an overcapacity of energy in the system and is driving prices down making conventional generation unprofitable; hence creating the need for subsidies for conventional generation units to ensure security of subsidy given their exposure to decreasing wholesale prices. As a result, subsidies are required on both sides of the equation: the renewable and conventional side of the business to maintain both stability and a lower CO2 profile.

2.3. Sovereign funds and asset managers are decarbonising their portfolios

Investors are also taking the “green initiative” and seeking to decarbonise their portfolios. For example, the Norwegian oil sovereign fund is already reducing its positions in polluting coal investments, with similar

approaches followed by wealth and asset management firms.

What will happen next

The industry is experiencing a structural transformation. The business model used for big utility groups has evolved and is now obsolete (no sovereign risk, regular demand growth, positive inflation, and steadily increasing oil prices):

3.1. Shift towards energy efficiency and lower wholesale prices

The trend for steadily increasing energy demand ensuring ever higher power prices has now shifted towards energy efficiency and lower wholesale prices. Large generation units and centralised power are being replaced by smaller decentralised units, optimally placed where resources are available and demand is higher. A low energy price environment is “the new normal”, and even if prices are expected to rebound in the medium term, driven by an expected tightening of the security of supply (the UK and Germany) and higher carbon prices, they are not expected to reach levels previously seen.

3.2. Renewable energy

The introduction of renewable energy has modified the way energy is supplied. Renewable sources (wind, water, biomass and photovoltaic) are given priority within the grid, making conventional generation units redundant. The increased introduction of renewable power has created overcapacity in power generation and an oversupply of electricity, which is driving prices down. This trend should continue as long as the renewable energy business is in growth mode and more countries are moving towards a low carbon economy. With a marginal cost close to zero, renewable energy is creating major distortions in the market and supply/demand balance (production is based on weather conditions and not on demand expectations).

Both transmission and distribution networks should experience a positive effect with the further deployment of renewable sources as higher investment would be needed to counter production volatility and link all new projects, increasing their regulated asset base, for which both their revenue and earnings are calculated on the asset value.

For this purpose, the EU has set up a binding target of 20% of final energy consumption to be generated by renewables by 2020. To achieve this, EU countries have committed to reaching their own national renewable targets ranging from 10% in Malta up to 49% in Sweden.

3.3. European energy integration and medium-term vision

European energy integration is needed to avoid arbitrage opportunities between countries and optimise country-specific capabilities: electricity networks, wholesale electricity price differentials, two-sided gas pipelines, renewable energy subsidies, capacity reserve remuneration. The market is already moving towards this as spreads between country prices are being reduced with an increased correlation in price movements due to higher usage of interconnection transmission assets.

The medium-to long-term vision of the European energy system is largely based on:

1) renewable generation sources with a low CO2 profile,
2) smart networks,
3) energy efficiency,
4) customer services and
5) demand response units.

3.4. Organic growth and market disruption

Europe is a mature market with a decreasing trend in demand expectations; organic growth comes from emerging economies with increasing demand needs and rising wholesale prices. Renewable sources such as

Power-Integrated Story

onshore wind and solar are already going into a mature state as well, but growth in Europe may come from offshore wind, which is only starting.

A major sector game-changer may nonetheless come from technology improvements in electricity storage as the demand is there from increased volatility and oversupplied electricity being lost on the grid, but supply is not yet there from a cost-function perspective. From start-ups to car producers, attention has been shifted towards this sector as it would both balance the grid (use power to recharge batteries when there is an oversupply in the market) and provide security of subsidy when needed.

Power-Integrated Charts

Sector Price

Sector Earning Growth 2017/2016

Sector PE 2017

Sector Yield 2017

Sector PBook 2017

RWE (Add)

Power-Integrated / Germany

Power-Integrated Key Data

Aggregated sector data

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Operating revenues	€M	229,315	315,714	388,409	376,788	444,872	499,261	538,180	520,101	478,859	477,556	383,839	387,861	397,266	367,654
Sales growth	%		6.62	23.0	-2.99	9.99	8.83	7.80	-3.36	-7.93	-0.27	-19.6	1.05	2.42	2.92
Ebitda	€M	45,902	64,304	67,067	70,430	81,756	77,455	83,827	80,845	78,549	75,689	69,066	69,872	72,121	70,245
Ebitda margin	%	20.1	20.4	17.3	18.8	18.5	15.9	16.0	15.9	16.7	16.2	18.4	18.4	18.5	19.5
Operating profit	€M	31,351	44,928	38,802	46,407	45,233	38,914	39,682	19,272	28,308	12,959	26,526	42,937	39,714	38,518
Operating margin	%	13.3	14.5	11.5	12.4	11.5	8.88	9.46	9.03	9.60	8.97	10.3	9.90	10.00	10.5
Adj. Attrib. Net profit	€M	17,366	26,609	18,288	20,923	25,092	18,773	22,261	22,436	18,535	17,913	17,107	17,294	18,433	17,909
Free cash flow	€M	10,266	2,191	-17,809	-581	-2,615	-2,894	2,195	4,889	4,697	3,117	-4,800	6,269	10,390	11,477
Roe (return on equity) %	%	16.2	21.4	12.6	14.5	10.6	6.80	6.52	1.38	5.38	-1.07	5.82	11.6	9.83	9.50
Shareholders funds (group share)	€M	120,803	150,842	165,912	194,896	237,864	245,338	234,351	217,770	203,140	192,925	170,880	183,480	192,898	184,019
Net debt	€M	62,910	130,229	173,943	213,968	227,249	265,912	274,783	237,688	224,597	217,981	206,958	194,108	188,429	174,694
Capex	€M	-19,493	-34,614	-44,202	-45,480	-52,379	-52,209	-51,368	-45,101	-41,489	-44,854	-45,847	-42,086	-40,078	-37,674
ROCE	%	7.39	8.57	7.32	6.52	6.21	5.17	5.49	5.55	5.56	5.32	5.03	4.81	4.89	4.87

RWE (Add)

Power-Integrated / Germany

Power-Integrated Fundamentals

Companies

Company	Sector	Performances (%)				Mom.	Opinion	Upside	Market Cap (€M)	Country
		1W	1M	3M	YTD					
Enel	Power-Integrated	0.58	1.08	11.2	20.8		Add	16.0%	49,410	
Iberdrola	Power-Integrated	-2.97	-2.67	2.43	12.9		Add	9.68%	41,839	
Engie	Power-Integrated	1.77	-2.84	4.46	15.7		Add	14.5%	32,394	
Electricite de France	Power-Integrated	-1.74	-13.4	17.5	0.91		Sell	-8.48%	25,291	
E.on	Power-Integrated	-2.55	-6.34	18.2	28.1		Reduce	2.21%	18,357	
Scottish & Southern Energy	Power-Integrated	-1.89	-3.65	2.54	-4.76		Add	12.1%	16,605	
Fortum	Power-Integrated	-4.61	-2.60	6.53	2.87		Reduce	-2.47%	12,313	
EDP	Power-Integrated	0.68	-0.03	1.20	8.89		Add	11.2%	10,860	
RWE	Power-Integrated	-1.84	-7.87	12.1	48.7		Add	19.0%	10,788	
Verbund	Power-Integrated	-0.69	6.47	10.5	16.6		Reduce	3.11%	6,035	
Hera	Power-Integrated	1.83	-1.07	7.69	30.8		Buy	18.2%	4,092	
EVN	Power-Integrated	-1.34	0.35	6.17	19.4		Reduce	-0.72%	2,294	

Sector	Performances (%)				Mom.	Opinion	Upside	Market Cap (€M)
	1W	1M	3M	YTD				
Weighted average	-1.03	-3.46	8.18	13.9		Add	9.04%	
Median	-1.54	-2.64	7.11	16.1		Add	10.4%	
Total								230,278
AV universe weighted avg	-2.03	-1.95	-0.22	7.43			6.00%	9,407,140

Valuation ratios

Company	Sector	P/E		Earnings growth		P/Book		Yield		Market Cap (€M)
		2017	2018	2017/2016	2018/2017	2017	2018	2017	2018	
Enel	Power-Integrated	13.5 x	12.2 x	8.40%	10.7%	1.32 x	1.23 x	4.53%	5.35%	49,410
Iberdrola	Power-Integrated	14.8 x	14.0 x	6.66%	5.53%	1.09 x	1.03 x	4.77%	4.92%	41,839
Engie	Power-Integrated	12.8 x	12.1 x	2.71%	5.96%	0.83 x	0.80 x	5.18%	5.18%	32,394
Electricite de France	Power-Integrated	10.1 x	10.8 x	-50.7%	-6.25%	1.05 x	1.08 x	5.75%	4.60%	25,291
E.on	Power-Integrated	12.9 x	12.6 x	39.7%	2.73%	5.54 x	3.04 x	3.60%	4.38%	18,357
Scottish & Southern Energy	Power-Integrated	11.7 x	11.3 x	3.34%	3.13%	4.62 x	4.30 x	6.31%	6.37%	16,605
Fortum	Power-Integrated	19.3 x	18.4 x	25.9%	5.21%	0.98 x	1.01 x	7.94%	5.77%	12,313
EDP	Power-Integrated	11.7 x	11.3 x	0.30%	3.99%	1.08 x	1.02 x	6.40%	6.57%	10,860
RWE	Power-Integrated	9.96 x	10.0 x	39.6%	-0.84%	2.26 x	2.38 x	2.85%	2.85%	10,788
Verbund	Power-Integrated	20.0 x	20.6 x	-7.47%	-2.90%	1.19 x	1.16 x	1.50%	1.46%	6,035
Hera	Power-Integrated	17.7 x	16.2 x	12.0%	9.27%	1.64 x	1.52 x	3.42%	3.42%	4,092
EVN	Power-Integrated	14.1 x	13.4 x	4.00%	5.55%	0.89 x	0.88 x	3.33%	3.33%	2,294

Sector	P/E		Earnings growth		P/Book		Yield		Market Cap (€M)
	2017	2018	2017/2016	2018/2017	2017	2018	2017	2018	
Weighted average	13.1 x	12.5 x	-46.0%	4.21%	1.25 x	1.20 x	4.93%	4.97%	
Median	13.2 x	12.4 x	5.33%	4.60%	1.14 x	1.12 x	4.65%	4.76%	
AV universe weighted avg	16.6 x	15.1 x	17.4%	9.93%	1.75 x	1.67 x	3.40%	3.59%	9,407,140

RWE (Add)

Power-Integrated / Germany

Power-Integrated Fundamentals

Earnings

Company	Sector	Adjusted attributable net profit (€M)					Market Cap (€M)
		2016	2017	2018	Chg. 17/16	Chg. 18/17	
Enel	Power-Integrated	3,243	3,653	4,042	410	389	49,410
Iberdrola	Power-Integrated	2,730	2,856	2,988	125	133	41,839
Engie	Power-Integrated	2,477	2,545	2,697	68.1	152	32,394
Electricite de France	Power-Integrated	3,503	2,153	2,376	-1,350	222	25,291
E.on	Power-Integrated	904	1,328	1,430	424	103	18,357
Scottish & Southern Energy	Power-Integrated	1,358	1,420	1,478	62.1	58.0	16,605
Fortum	Power-Integrated	507	638	671	131	33.2	12,313
EDP	Power-Integrated	919	921	958	2.74	36.7	10,860
RWE	Power-Integrated	777	1,085	1,076	308	-9.11	10,788
Verbund	Power-Integrated	326	302	293	-24.3	-8.76	6,035
Hera	Power-Integrated	207	232	253	24.6	21.5	4,092
EVN	Power-Integrated	156	163	172	6.26	9.02	2,294

Sector	Adjusted attributable net profit (€M)					Market Cap (€M)
	2016	2017	2018	Chg. 17/16	Chg. 18/17	
Total	17,107	17,294	18,433	186	1,140	230,278

Risk ratios

Company	Sector	Gearing		Goodwill / Equity		Net Debt / Ebitda		Market Cap (€M)
		2017	2018	2017	2018	2017	2018	
Enel	Power-Integrated	118%	110%	36.3%	33.8%	2.87 x	2.74 x	49,410
Iberdrola	Power-Integrated	81.3%	75.6%	22.7%	21.6%	3.86 x	3.65 x	41,839
Engie	Power-Integrated	70.7%	59.3%	44.7%	43.9%	2.75 x	2.36 x	32,394
Electricite de France	Power-Integrated	228%	217%	37.7%	38.7%	3.63 x	3.42 x	25,291
E.on	Power-Integrated	112%	28.2%	111%	61.1%	0.37 x	0.36 x	18,357
Scottish & Southern Energy	Power-Integrated	321%	303%	19.6%	18.4%	4.17 x	4.04 x	16,605
Fortum	Power-Integrated	1.59%	6.51%	1.52%	1.60%	0.48 x	0.94 x	12,313
EDP	Power-Integrated	162%	148%	35.5%	34.5%	4.27 x	4.08 x	10,860
RWE	Power-Integrated	87.6%	83.5%	244%	256%	0.91 x	0.98 x	10,788
Verbund	Power-Integrated	50.5%	45.1%	14.6%	14.3%	3.00 x	2.81 x	6,035
Hera	Power-Integrated	109%	102%	15.0%	14.1%	2.99 x	2.92 x	4,092
EVN	Power-Integrated	47.5%	47.2%	2.17%	2.14%	2.70 x	2.76 x	2,294

Sector	Gearing		Goodwill / Equity		Net Debt / Ebitda		Market Cap (€M)
	2017	2018	2017	2018	2017	2018	
Weighted average	109%	99.2%	38.0%	36.5%	2.87 x	2.70 x	
Median	98.3%	79.6%	29.1%	27.7%	2.93 x	2.78 x	

RWE (Add)

Power-Integrated / Germany

Power-Integrated Fundamentals

B/S data

Company	Sector	Equity (€M)		Net Debt (€M)		Goodwill (€M)		Market Cap (€M)
		2017	2018	2017	2018	2017	2018	
Enel	Power-Integrated	37,371	40,090	44,127	44,146	13,550	13,550	49,410
Iberdrola	Power-Integrated	38,514	40,752	31,164	30,493	8,750	8,800	41,839
Engie	Power-Integrated	39,113	40,405	26,035	21,865	17,500	17,750	32,394
Electricite de France	Power-Integrated	24,193	24,060	52,923	51,632	9,123	9,323	25,291
E.on	Power-Integrated	3,240	5,897	1,627	1,695	3,600	3,600	18,357
Scottish & Southern Energy	Power-Integrated	3,592	3,895	11,767	11,822	703	717	16,605
Fortum	Power-Integrated	12,505	12,154	527	1,056	190	195	12,313
EDP	Power-Integrated	10,010	10,594	15,864	15,534	3,550	3,650	10,860
RWE	Power-Integrated	4,784	4,546	3,659	3,933	11,650	11,650	10,788
Verbund	Power-Integrated	5,085	5,203	2,467	2,229	742	742	6,035
Hera	Power-Integrated	2,500	2,694	2,745	2,770	376	380	4,092
EVN	Power-Integrated	2,573	2,607	1,205	1,254	55.8	55.8	2,294

Sector	Equity (€M)		Net Debt (€M)		Goodwill (€M)		Market Cap (€M)
	2017	2018	2017	2018	2017	2018	
Total	183,480	192,898	194,108	188,429	69,789	70,412	230,278

EV ratios

Company	Sector	Upside	Mom.	Ev/Ebit		Ev/Ebitda(R)		Market Cap (€M)
				2017	2018	2017	2018	
EVN	Power-Integrated	-0.72%		14.0 x	14.2 x	5.39 x	5.40 x	2,294
Hera	Power-Integrated	18.2%		14.5 x	13.8 x	7.25 x	7.04 x	4,092
Verbund	Power-Integrated	3.11%		20.4 x	20.7 x	11.8 x	11.9 x	6,035
RWE	Power-Integrated	19.0%		11.4 x	12.2 x	6.46 x	6.72 x	10,788
EDP	Power-Integrated	11.2%		14.4 x	13.8 x	8.59 x	8.31 x	10,860
Fortum	Power-Integrated	-2.47%		14.3 x	14.5 x	9.43 x	9.66 x	12,313
Scottish & Southern Energy	Power-Integrated	12.1%		14.7 x	14.5 x	9.37 x	9.14 x	16,605
E.on	Power-Integrated	2.21%		15.2 x	15.0 x	8.83 x	8.43 x	18,357
Electricite de France	Power-Integrated	-8.48%		25.2 x	24.4 x	11.1 x	10.9 x	25,291
Engie	Power-Integrated	14.5%		12.2 x	11.9 x	5.90 x	5.73 x	32,394
Iberdrola	Power-Integrated	9.68%		16.9 x	16.2 x	9.93 x	9.51 x	41,839
Enel	Power-Integrated	16.0%		11.8 x	11.1 x	6.87 x	6.57 x	49,410

Sector	Ev/Ebit		Ev/Ebitda(R)		Market Cap (€M)
	2017	2018	2017	2018	
Weighted average	15.5 x	15.1 x	8.33 x	8.13 x	
Median	14.4 x	14.3 x	8.71 x	8.37 x	
AV universe weighted avg	16.2 x	14.8 x	9.96 x	9.15 x	9,407,140

RWE (Add)

Power-Integrated / Germany

Power-Integrated Fundamentals

Risk/Reward

Company	Sector	Value	Equity Risk	Gov. Mgt	Upside
Enel	Power-Integrated				16.0%
Iberdrola	Power-Integrated				9.68%
Engie	Power-Integrated				14.5%
Electricite de France	Power-Integrated				-8.48%
E.on	Power-Integrated				2.21%
Scottish & Southern Energy	Power-Integrated				12.1%
Fortum	Power-Integrated				-2.47%
EDP	Power-Integrated				11.2%
RWE	Power-Integrated				19.0%
Verbund	Power-Integrated				3.11%
Hera	Power-Integrated				18.2%
EVN	Power-Integrated				-0.72%

Methodology

Methodology

Fundamental Opinion

It is implicit that recommendations are made in good faith but should not be regarded as the sole source of advice.

Recommendations are geared to a "**value**" approach.

Valuations are computed from the point of view of a **secondary market minority holder** looking at a medium term (say 6 months) performance.

Valuation tools are built around the concepts of **transparency,** all underlying figures are accessible, and **consistency,** same methodology whichever the stock, allowing for differences in nature between financial and non financial stocks. A stock with a target price below its current price should not and will not be regarded as an Add or a Buy.

Recommendations are based on target prices with no allowance for dividend returns. The thresholds for the four recommendation levels may change from time to time depending on market conditions. Thresholds are defined as follows, ASSUMING long risk free rates remain in the 2-5% region.

Recommendation	Low Volatility 10 < VIX index < 30	Normal Volatility 15 < VIX index < 35	High Volatility 35 < VIX index
Buy	More than 15% upside	More than 20% upside	More than 30% upside
Add	From 5% to 15%	From 5% to 20%	From 10% to 30%
Reduce	From -10% to 5%	From -10% to 5%	From -10% to 10%
Sell	Below -10%	Below -10%	Below -10%

There is deliberately no "neutral" recommendation. The principle is that there is no point investing in equities if the return is not at least the risk free rate (and the dividend yield which again is not allowed for).

Although recommendations are automated (a function of the target price whenever a new equity research report is released), the management of AlphaValue intends to maintain global consistency within its universe coverage and may, from time to time, decide to change global parameters which may affect the level of recommendation definitions and /or the distribution of recommendations within the four levels above. For instance, lowering the risk premium in a gloomy context may increase the proportion of positive recommendations.

Methodology

Valuation

Valuation processes have been organized around transparency and consistency as primary objectives.

Stocks belong to different categories that recognise their main operating features : Banks, Insurers and Non Financials.

Within those three universes, the valuation techniques are the same and in relation to the financial data available.

The weighting given to individual valuation techniques is managed centrally and may be changed from time to time. As a rule, all stocks of a similar profile are valued using equivalent weighting of the various valuation techniques. This is for obvious consistency reasons.

Within the very large universe of Non Financials, there are in effect 4 sub-categories of weightings to cater for subsets: 1) 'Mainstream' stocks; 2) 'Holding companies' where the stress is on NAV measures; 3) 'Growth' companies where the stress is on peer based valuations; 4) 'Loss making sectors' where peers review is essentially pointing nowhere (ex: Bio techs). The bulk of the valuation is then built on DCF and NAV, in effect pushing back the time horizon.

Valuation Issue	Normal industrials	Growth industrials	Holding company	Loss runners	Bank	Insurers
DCF	35%	35%	10%	40%	0%	0%
NAV	20%	20%	55%	40%	25%	15%
PE	10%	10%	10%	5%	10%	20%
EV/EBITDA	20%	20%	0%	5%	0%	0%
Yield	10%	10%	20%	5%	15%	15%
P/Book	5%	5%	5%	5%	15%	10%
Banks' instrinsic method	0%	0%	0%	0%	25%	0%
Embedded Value	0%	0%	0%	0%	0%	40%
Mkt Cap/Gross Operating Profit	0%	0%	0%	0%	10%	0%

Important Warning