

## German Utilities

## The Auguries of Autumn

**EU-ETS reform and German election key events to watch.** A final EU-ETS reform deal is likely in the autumn, and the German election is on 24 September. In this note we update our earnings estimates and price targets for the German utilities, and detail the EU/German policy issues we see as being key share-price drivers into Q4 and beyond.

**Carbon and climate policies a risk for RWE but a potential opportunity for Uniper.** As set out in our *Carbon carnival* report of 7 March, if the final EU-ETS reform deal endorses an annual reduction in the market surplus of 24% per year we think this could lead to EUA prices of €15/t by the 2021 (or sooner), and €25-30/t by 2030. At the same time, recently passed EU legislation on air-quality standards, and the large gap to Germany's domestic 2020 emissions target, are likely to be policy priorities for the new government. In our view, all of these policy issues pose a risk for RWE (as the EU's largest emitter of CO<sub>2</sub>), and a potential opportunity for Uniper (with its much less carbon-intensive portfolio).

**RWE will not rule out a bid for Uniper, and industrial and financial logic are clear.** Ever since speculation about potential consolidation in the European utility sector surfaced in March, RWE has refused to rule out a bid for Uniper, stating instead that it is looking at "all options" for growth in its core markets. With Uniper offering a natural hedge against higher carbon prices – we estimate that for a given increase in the carbon price, the value of Uniper's equity increases by ~60% of the absolute amount that RWE's equity value declines – and with our scenario analyses indicating that a deal could also be significantly earnings accretive, we think policy outcomes and signals this autumn could be decisive factors in RWE's decision-making process.

**E.ON: Upgrading PT to €10.5 (€9.4 previously), remain OW.** With strong momentum on deleveraging and recently upgraded dividend guidance, E.ON remains our preferred pick amongst the German utilities. **Uniper: Upgrading PT to €19.2 (€17 previously), remain EW.** We think Uniper's asset mix gives it optionality on any tightening of EU and/or German climate policy, but despite raising our DPS forecasts over 2018-20 substantially Uniper's 2018 yield is still less attractive than the sector average. **RWE: Upgrading PT to €22 (€19.1 previously), remain EW.** RWE's asset mix means it is positively geared to coal prices (the current price-setting fuel for German power), but negatively geared to any tightening of EU and/or German climate policy. As with Uniper, albeit after a more modest uplift to our DPS forecasts, RWE's 2018 yield remains below the sector average. **Innogy: Upgrading PT to €34 (€33 previously), remain UW.** Innogy continues to deliver on the targets set at its IPO last year, but with the shares trading above our raised PT and no obvious catalysts in the near term, we remain UW.

**Risks to Thesis and Valuation:** Please see detailed company-specific risks for all four German utilities in the section on the Investment Cases for each inside.

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PLEASE SEE ANALYST CERTIFICATION(S) AND IMPORTANT DISCLOSURES BEGINNING ON PAGE 54.

## INDUSTRY UPDATE

## European Utilities

**NEUTRAL**

Unchanged

For a full list of our ratings, price target and earnings changes in this report, please see table on page 2.

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## Summary of our Ratings, Price Targets and Earnings Changes in this Report (all changes are shown in bold)

| Company                       | Rating |     | Price     | Price Target |              |      | EPS FY1 (E) |             |      | EPS FY2 (E) |             |      |
|-------------------------------|--------|-----|-----------|--------------|--------------|------|-------------|-------------|------|-------------|-------------|------|
|                               | Old    | New | 24-Aug-17 | Old          | New          | %Chg | Old         | New         | %Chg | Old         | New         | %Chg |
| <b>European Utilities</b>     | Neu    | Neu |           |              |              |      |             |             |      |             |             |      |
| E.ON (EOAN GY / EONGr.DE)     | OW     | OW  | 9.43      | 9.40         | <b>10.50</b> | 12   | 0.67        | <b>0.61</b> | -9   | 0.67        | <b>0.63</b> | -6   |
| Innogy SE (IGY GY / IGY.DE)   | UW     | UW  | 37.41     | 33.00        | <b>34.00</b> | 3    | 2.19        | <b>2.28</b> | 4    | 2.41        | <b>2.43</b> | 1    |
| RWE (RWE GY / RWEGr.DE)       | EW     | EW  | 20.80     | 19.10        | <b>22.00</b> | 15   | 1.74        | <b>1.92</b> | 10   | 1.58        | <b>1.76</b> | 11   |
| Uniper SE (UN01 GY / UN01.DE) | EW     | EW  | 20.88     | 17.00        | <b>19.20</b> | 13   | 1.93        | <b>2.19</b> | 13   | 1.80        | 1.80        | -    |

Source: Barclays Research. Share prices and target prices are shown in the primary listing currency and EPS estimates are shown in the reporting currency.

FY1(E): Current fiscal year estimates by Barclays Research. FY2(E): Next fiscal year estimates by Barclays Research.

Stock Rating: OW: Overweight; EW: Equal Weight; UW: Underweight; RS: Rating Suspended

Industry View: Pos: Positive; Neu: Neutral; Neg: Negative

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## INVESTMENT CASES

Below we summarize our investment cases for the four German utilities. We then offer a more detailed analysis of each in the respective company sections later in this report.

### E.ON: (OW, PT raised to €10.5 from €9.4)

**Deleveraging and delivering:** After winning its legal appeal against the Nuclear Fuel Tax, E.ON's financial position has improved substantially. In late June, the German Government reimbursed €2.85bn paid by E.ON over 2011-16 and the Group will receive a further €450m of accrued interest later this year (giving a total post-tax cash influx of ~€2.8bn). This boost to its balance sheet means that E.ON is now on track to over-achieve against its medium-term deleveraging target of 4x ND/EBITDA while also being able to offer a more generous payout policy (management is now targeting a payout ratio of "at least 65%" versus 50-60% previously). On our updated numbers, E.ON's ND/EBITDA ratio falls to 4.3x by 2020 (versus 4.5x previously) even though we raise our DPS projections by an average of 25% per year over 2018-20. And with further deleveraging measures worth ~€4-€5.5bn (0.8x-1.3x off the ND/EBITDA ratio) likely in 2018, we think E.ON has the potential for further uplifts to dividend guidance as and when these measures are triggered. In this respect, the next key event will likely be the disposal of E.ON's 46.7% stake in Uniper (currently worth ~€3.55bn), with a sale being targeted for Q1 2018, and with Uniper potentially set to benefit before that from the finalization of the EU-ETS reform package this autumn. On our updated numbers, E.ON now offers a prospective dividend yield of 4.3% in 2018 rising to 5.2% in 2020E, making it competitive with Innogy but with stronger momentum and potential catalysts for a further re-rating within the next six months. After updating our valuation in light of the H1 results, we upgrade our PT to €10.5 from €9.4, and remain OW.

**Risks to thesis and valuation:** The main downside risks we see are (i) further competitive and regulatory pressure on retail supply in the UK and Germany, and (ii) the risk of a sustained weaker British Pound (a 10% reduction in the £/€ exchange rate from our base case of €1.11 would have a negative impact of €0.6/share on our SOTP valuation).

### Uniper (EW, PT raised to €19.2, from €17)

**Bid premium building?** We are raising our PT for Uniper to €19.2 from €17, and with the shares trading just above €20 at the moment we remain EW. We increase our SOTP after raising our long-term price assumption for coal from 2020 by \$5/t (which raises our long-term power-price forecast and hence makes Uniper's fixed-cost hydro capacity more valuable, as well as its gas-fired capacity), and lowering our year-end forecast for economic net debt. With the expected completion of the Yuzhno-Russkoye disposal in H2, Uniper will effectively have achieved the €2bn of disposal proceeds by year-end 2017 that management announced as its target at the time of its listing in Q3 2016. As explained in our reports *Cashablanca (with an option on Paris)*, 20 Sept 2016, and *German Utilities: Carbon carnival ahead of 2016 results*, 7 Mar 2017, we think Uniper's asset mix gives it upside optionality on any tightening of German and EU climate policy going forward, and in our view this also helps to explain the recent market speculation regarding Uniper as a potential takeover target<sup>1</sup> as and when E.ON is free to sell down its 46.7% stake from January 2018 (see section in this report, *To bid or not to bid*). On our updated EPS and DPS forecasts (both of which we upgrade), Uniper trades on forward P/E multiples of 11.4x and 10.2x for 2017E and 2018E respectively, and yields 3.9% and 5.4% for 2018 and 2019 respectively.

<sup>1</sup> We detail the numerous media sources for this speculation in the next main section below entitled *To bid, or not to bid, that is the question*, but to take one example of the media reports behind this market speculation see the Bloomberg story of 15 March, *German Energy Faces Turbulence as CEOs Prepare for Deals*

We do not think the shares are expensive, and the prospective yield for 2020 on our updated numbers is a very attractive 8.7%, but at this stage we think Uniper is fairly valued. Key to delivering on market expectations from here will be a smooth operational performance (in particular, the start-up of Datteln-4 by Q2-2018), and capex discipline, thereby enabling management to deliver on dividend-growth expectations over 2018-20 (on our own revised estimates we now have a CAGR in the DPS of 32% over 2017-20E).

**Uniper: Risks to thesis and valuation:** The main downside risks to our thesis and valuation are lower German and UK power prices than we are assuming, and a later start-up of Datteln-4 and re-start of Berezovskaya-3 than we assume. The main upside risks are higher German and UK power prices than we are assuming.

## RWE (EW, PT raised to €22 from €19.1)

**Decision time:** After winning its legal appeal against the Nuclear Fuel Tax, RWE's financial position has improved substantially. In late June, the German Government reimbursed €1.7bn paid by RWE over 2011-16 and it will receive a further €200m of accrued interest in H2 (for a total post-tax cash influx of ~€1.7bn as the interest is offset by tax on the refund). This boost to its balance sheet means that on our updated numbers RWE is now on track to end 2017 with a ND/EBITDA ratio of 3.8x (versus 4.1x previously), which then trends down to 3.5x by 2020 (4x on our previous numbers), even though also modestly increase our estimates for the ordinary dividend from 2018 onwards. With its large portfolio of firm thermal capacity (especially lignite), RWE is very positively geared to higher coal and power prices, as well as to any tightening in Germany and other European power markets as nuclear and older and/or unprofitable fossil-fuel capacity is retired over the next few years. At the same time, however, it is negatively geared to higher carbon prices, and this poses a serious strategic challenge in the face of (i) the finalization of the EU-ETS reform package due this autumn, and (ii) the significant emissions reductions required from the power sector over the next decade under Germany's CAP-2050 policy framework. On our updated earnings forecasts, RWE now trades on a forward P/E multiple of 11.9x for 2018E, but it is yielding only 3.3% even in 2019E. After updating our SOTP valuation in light of the H1 results, we upgrade our PT to €22 from €19.1, and with the shares now trading close to our revised PT, we remain EW.

**Risks to thesis and valuation:** On a 12-month view, the main upside risks are (i) that long-term coal and power prices move above the levels assumed in our base case, and (ii) higher capacity payments in the UK from 2021/22 onwards than we assume. The main downside risk is that long-term coal and power prices move below the levels in our base case. Beyond a 12-month horizon, the main risk is tighter German and/or EU climate policy.

## Innogy (UW, PT raised to €34 from €33)

**Continuing steady delivery:** We raise our PT on Innogy to €34 from €33 while retaining our UW rating. Although we continue to like Innogy's defensive growth profile, we think the shares have benefited in recent months from bid speculation relating to a potential acquisition by Engie<sup>2</sup> (EW, PT €13.7), which we do not think is plausible. Our numbers are little changed after the H1 results, and we project regulated or quasi-regulated activities to contribute 62% of group EBITDA in 2017 (up slightly from 60% in 2016), and for this ratio to remain constant out to 2020. We now project Innogy's headline EBIT to increase at a three-year CAGR of 2% over 2017-20, with the Renewables division being the main driver. With interest expenses falling over the second half of our forecast period in line with very meaningful re-financing opportunities in 2019 and 2020, our numbers project a three-year CAGR in EPS of 5% over 2017-20E, and assuming a payout ratio of 75% (the middle of the group's 70-80% guidance range) we expect the dividend to grow by 5% compound as well.

<sup>2</sup> See, for example, the Bloomberg report of 13 March, "Engie Eyes Bid for \$19.8bn Utility Firm Innogy";

Overall, we think Innogy continues to display a solid defensive growth profile, and at 4.9% and 5.1% the dividend yield for 2018E and 2019E respectively is in line with sector peers. However, with the shares in our view having benefited from bid speculation since March (which we think is ultimately very unlikely to materialise), and with the current share price 9% above our revised PT of €34, we see more compelling momentum in Innogy's closest peer, E.ON. Accordingly, we remain UW.

**Risks to thesis and valuation:** The main downside risks are depreciation in the GBP/EUR exchange rate and a lower allowed rate of return across the group's Network businesses in Eastern Europe. The main upside risks are an appreciation in the GBP/EUR exchange rate and faster growth in the Renewables division than we are now assuming.

### German utilities compared with sector peers

Figure 1 shows the P/E ratios and dividend yields for 2017E and 2018W for the four German utilities on our revised numbers against sector peers.

FIGURE 1

#### German utilities valuation comparisons against sector peers

|                               | P/E   |       | Dividend Yield |      |
|-------------------------------|-------|-------|----------------|------|
|                               | 2017  | 2018  | 2017           | 2018 |
| E.ON                          | 15.4x | 15.1x | 3.2%           | 4.3% |
| Uniper                        | 9.5x  | 11.6x | 3.3%           | 3.9% |
| RWE*                          | 10.9x | 11.8x | 2.4%           | 2.9% |
| Innogy                        | 16.4x | 15.4x | 4.6%           | 4.9% |
| European Integrated Utilities | 14.6x | 14.1  | 4.3%           | 5.0% |
| European Regulated Utilities  | 16.1x | 15.7x | 4.7%           | 4.9% |

Source: Barclays Research estimates, Datastream. Priced as of close 24 August 2017. \*Note that the dividend yield for RWE shown here is calculated on the basis of the ordinary dividend only (€0.5/share). However, RWE has said that it also intends to pay a special dividend of €1/share on top of this ordinary dividend. Adding the two together would give a total dividend for 2017 of €1.5/share, and a total prospective yield of 7.2%

## AUTUMN POLICY WATCH: EU-ETS REFORM AND THE GERMAN ELECTION

In this section, we set out what we see as the key policy factors to watch for heading into the autumn, and in this respect we see three main issues of relevance:

- (i) the conclusion of the EU-ETS reform process;
- (ii) the future impact on Germany's lignite and coal-fired power generators of the recent revision to the EU Industrial Emissions Directive (IED);
- (iii) Germany's 2020 GHG-emissions target, and how to close the yawning gap that exists between its current level of emissions (906Mt in 2016) and the 2020 target (750Mt).

The second and third of these policy issues both hinge on the outcome of Germany's general election on 24 September. The next German Government will have to make key decisions with regard to both of these issues, and the decisions it makes will define the future of lignite- and coal-fired generation in Germany over the next decade and beyond.

Of course, it is not realistic to expect the next government to make such politically significant decisions precipitously, and to be clear we are not suggesting that there will be a definitive plan put in place for the phase-out of lignite and coal soon after 24 September. However, we do think the incoming German Government will likely be under pressure almost immediately to signal how its policy on coal is likely to develop over the next four years. This is in part because the finalization of the EU-ETS reform will put the spotlight on the issue again, but also because Germany is the *de facto* host of the forthcoming UN climate-change conference, COP-23, in November.

In the end, of course, there is a direct link between the final EU-ETS reform deal and the German Government's domestic policy on coal. This is because, other things being equal, the tougher the final EU-ETS reform package, the greater will be the pressure on Germany's lignite and coal-fired generators in any case, thereby reducing the need for incremental domestic policy action in Germany beyond 2020.

However, whatever the shape of the final EU-ETS reform package, it will not be of any help to Germany in meeting its 2020 emissions target, and this means that if the next government is serious about at least making a "best-efforts" attempt to close the gap (currently some 150Mt), then we think it inevitable that extra domestic measures will be needed. In our view, this is a risk for Germany's power sector that is being completely ignored by the market, probably precisely because the gap looks far too great to close completely and it is therefore generally assumed that the target will simply be quietly abandoned. However, there is a big difference between abandoning the target outright and making a serious attempt to close the gap as much as possible between now and 2020. As a result, we see a risk to the power sector that further measures will be implemented between now and 2020 to help close this gap.

In short, the German power sector is in for a policy-heavy autumn, with direct implications for RWE and Uniper, and indirect implications for E.ON and Innogy, and as these policy issues play out over the autumn we think they will be instrumental in RWE's decision-making process as it considers whether to make a bid for E.ON's stake for Uniper in early 2018.<sup>3</sup>

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<sup>3</sup> We update our analysis of a potential RWE bid for Uniper as first set out in our report *Renewed Spark* (12 June 2017) in the next section of this report, *To bid, or not to bid, that is the question*. In this section we are more concerned with the policy factors themselves, and why they could be so crucial in determining RWE's strategy going forward. As explained in the next section, the reason the likely timing of any such move can already be identified as early 2018 is that E.ON has made clear both (i) that it wants to sell its stake in Uniper as soon as it is able to do so without incurring tax liabilities, and (ii) that this means the earliest date any such sale could be entered into and effected is January 2018.

## EU-ETS reform: sensitivity to EUA prices of RWE and Uniper

As we explained earlier this year in our report *Carbon carnival ahead of 2016 results* (7 March 2017), the EU is currently in the process of reforming the EU-ETS, and this process will reach a climax in the autumn. A final deal could be reached as soon as 13 September (the date of the next trilogue meeting between the EU parliament and the EU Council), but at any event we expect a final agreement before the end of the year.

Assuming the final deal is in line with the positions already set out by both the Parliament and the Council with regard to the annual rate at which the large EUA surplus will be removed from the market starting in 2019, then we think this would signal a significant tightening of the EU carbon market from 2019 and hence higher carbon prices also from that date onwards. In turn, as soon as such a deal were announced, we think it would have a corresponding impact on the perception of future carbon prices, and hence of the greater risks faced by carbon-intensive power generators over the next decade.

The reason this matters is that in our current valuations for RWE and Uniper we assume an EUA price of only €6/tonne (in constant 2020 prices) all the way out to 2030, reflecting the fact that under the existing legislative framework the market is likely to remain over-supplied all the way out to 2030. Crucially, we think that this is also what the market more generally is assuming. In other words, we think the current market valuations of RWE and Uniper reflect the view that there will be no meaningful carbon constraint on EU power generators before 2030, and hence that in Germany lignite will continue to run ahead of coal, and coal ahead of gas, all the way out to 2030.

However, if the final EU-ETS reform deal endorses the 24% take-out rate proposed by both the Council and the Parliament earlier this year – and we think it almost certainly will – then we think this would radically re-shape the outlook for the market balance in the EU carbon market from 2019 onwards, and hence the market's perception of future carbon prices and the shape of the merit order amongst fossil-fuel generators.

As we set out in our report *Carbon carnival*, if this is indeed what is agreed under the final EU-ETS reform package, we think EUA prices could reach €15/t already by the early 2020s (or sooner), and potentially €25-30/t by 2030.

As such, we think the outcome of EU-ETS reform process has the potential to re-shape the perception of the long-term equity stories for RWE and Uniper, with RWE negatively exposed to higher long-term carbon prices, and Uniper in our view more positively exposed.

Below we run a simple sensitivity analyses to higher carbon prices, gauging the impact of a scenario under which EUAs are higher by €5/t from 2020 than under our base case (€11/t instead of €6/t), and then flat in real terms thereafter.

**Caveat to our sensitivity analyses:** We would emphasize that modelling the impact of a given increase in the carbon price on a diverse power-generation portfolio is a very complicated exercise, as there are many dynamic variables in play, and we do not have all the information we would need in order to make precise calculations.

Nonetheless, we think that such stylised analyses have merit in showing the general level of sensitivity to carbon prices, particularly on a relative basis when comparing companies whose portfolios have very different levels of carbon intensity.

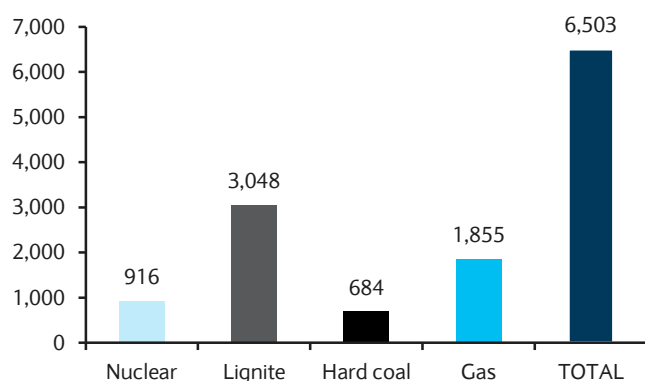
In this respect we would highlight upfront that RWE's power output in the EU in 2016 had a CO<sub>2</sub> intensity of 0.73t/MWh, while Uniper's was considerably lower at 0.51t/MWh.

### Gauging sensitivities to a €5/t increase in the carbon price from 2020

We estimate that a €5/t increase in the EUA price from 2020 would reduce RWE's equity value by ~€730m (€1.2/share), but increase the equity value of Uniper by €430m (€1.2/share). This can be seen by comparing the breakdown of our base-case valuations for the generation portfolios of RWE and Uniper with the impact of a €5/t increase in the carbon price from 2020 onwards

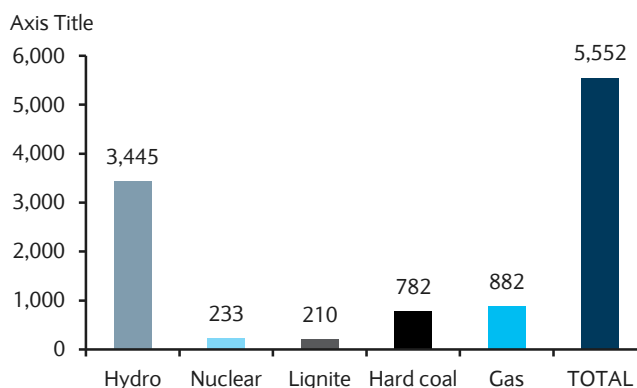
Figure 2 shows our base-case valuation for RWE's generation portfolio, and Figure 3 our base-case valuation for Uniper's generation assets.

**FIGURE 2**  
Barclays' base-case valuation of RWE generation assets (€m)



Source: Barclays Research estimates

**FIGURE 3**  
Barclays' base-case valuation of Uniper generation assets (€m)



Source: Barclays Research estimates

We value RWE's total generation portfolio at €6,503m, and that of Uniper at €5,552m, but as can be seen, the breakdown between the two is very different. RWE's is significantly more carbon intensive, with lignite alone accounting for nearly half the total value (€3,048m, or 46%), and lignite and coal combined for ~60%. Gas, the least carbon-intensive fossil fuel, accounts for ~30%, and nuclear for the remainder. RWE's nuclear assets are in Germany, but Germany will phase out all of its nuclear plants by 2022 (so there is little or no benefit to be had for the nuclear plants from a higher carbon price kicking in from 2020).

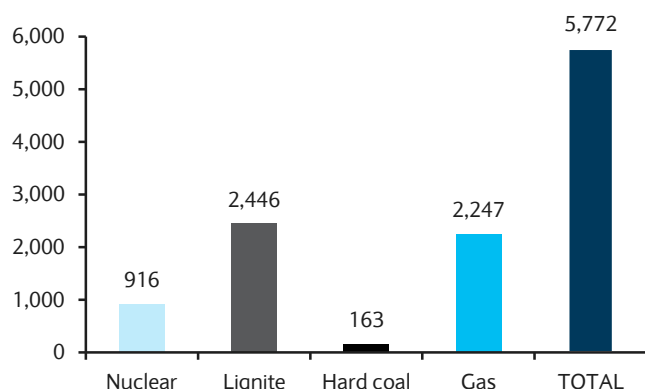
By contrast, the value in Uniper's portfolio today – i.e. under our assumption of EU carbon prices remaining flat in real terms at €6/t all the way out to 2030 – is overwhelmingly in the hydro assets (€3,445m, or 62% of the total), and gas (16%). Uniper's nuclear assets are in Sweden and do not have much value in our SOTP given the low level of power prices in the Scandinavian Nordpool market.

Figure 4 then shows our sensitivity analysis for RWE's generation portfolio assuming an EUA price of €11/t in 2020, which remains flat thereafter in real terms until 2030, and Figure 5 the same sensitivity analysis for Uniper.

The first thing to say is that whereas the total value of RWE's portfolio is lower under this scenario than under our base case, that of Uniper's is higher. As shown in Figure 6, for RWE the delta is -€731m (€5,772m versus €6,503m under our base case), whereas for Uniper the delta is +€433m. RWE sees reductions in the value of its lignite and coal plant, although this is mitigated somewhat by an increase in the value of its gas-generation portfolio. Uniper sees an increase in the value of its hydro and gas assets, but a reduction in its coal and lignite assets (Uniper has residual exposure to lignite through a stake in a plant in eastern Germany, but we assume this comes off from 2025 in any case).

FIGURE 4

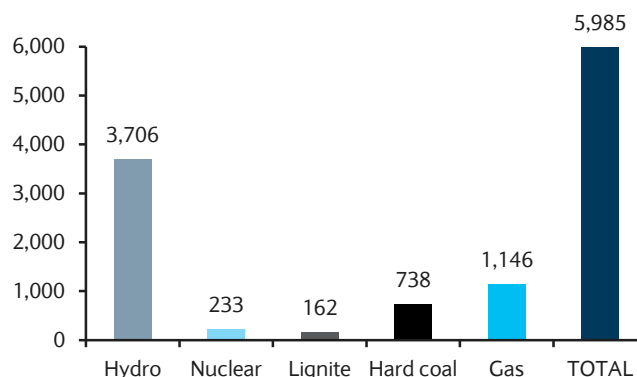
Valuation of RWE generation assets assuming EUA price higher by €5/t from 2020 versus Barclays' base case (€m)



Source: Barclays Research estimates

FIGURE 5

Valuation of Uniper generation assets assuming EUA price higher by €5/t from 2020 versus Barclays' base case (€m)

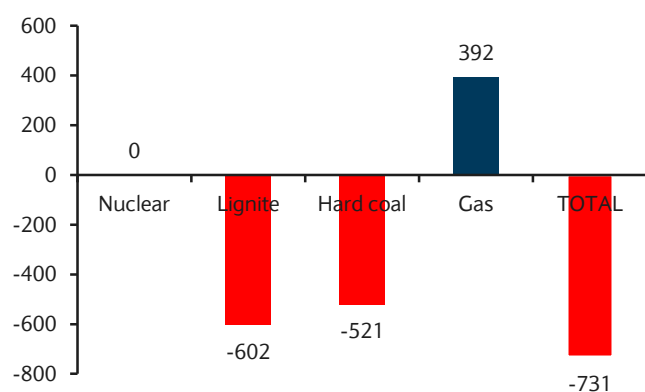


Source: Barclays Research estimates

An important point to emphasize is that because RWE has a larger portfolio of gas assets in the UK (6.65GW) than Uniper (4.33GW), and because the UK's carbon top-up price means that gas is already running ahead of coal most of the time, RWE's gas portfolio benefits more than Uniper's under our sensitivity analysis. This is because nearly all of the increase in the value of the gas assets of both companies from a €5/t higher carbon price comes in the UK, where gas is already more competitive than coal. For their gas generation assets in the rest of the EU, a higher carbon price of €5/t helps at the margin, but given the coal and gas prices we are assuming in our model for 2020 it is not enough of an increase to move the needle dramatically.

FIGURE 6

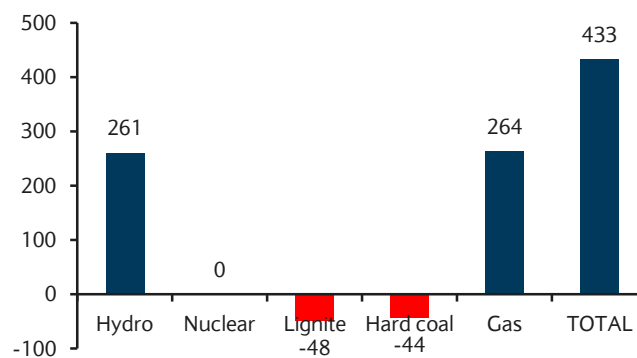
Delta in valuation of RWE's generation assets under first scenario analysis versus Barclays' base case (€m)



Source: Barclays Research estimates

FIGURE 7

Delta in valuation of Uniper's generation assets under first scenario analysis versus Barclays' base case (€m)



Source: Barclays Research estimates

We draw three main conclusions from this stylised analysis:

- 1) Whatever the precise levels of their respective sensitivities, directionally RWE is clearly negatively geared to higher carbon prices, while Uniper is positively geared.

- 2) A simple way to think about the sensitivity of the two companies is that for a given level of increase in the carbon price, the value of Uniper's equity increases by ~60% of the absolute amount that RWE's equity value declines (in our example above, the change in Uniper's equity value is +€433m, and the decline in RWE's is -€731m, so  $433/731 = 60\%$ ).
- 3) If the UK ends up leaving the EU-ETS as part of the Brexit process,<sup>4</sup> then RWE would lose a significant mitigating factor in terms of its sensitivity to carbon prices, and this would reinforce the strategic argument for diversifying its portfolio within the rest of the EU towards less carbon-intensive assets.

In short, RWE is negatively exposed to carbon-price risk going forward, and other things being equal, the higher and more sustained any future increase in EUA prices, the more negative this impact will be.

Finally, it is important to emphasize that in addition to the quantifiable value at risk for RWE from higher carbon prices, there is also an opportunity cost. By this we mean that as things stand at the moment, there is significant option value of RWE's firm thermal capacity to any tightening of the German power market over the next few years as the last nuclear plants are decommissioned and older fossil capacity also comes offline. Higher carbon prices from 2020 would diminish this option value.

Moreover, the threat of higher future carbon prices from the EU-ETS reform package is not the only climate-policy risk RWE faces going into the autumn. Following the German election on 24 September, we think the incoming German Government will be under pressure to clarify its position on two other major issues, both of which, on a worst-case scenario, could lead to more direct policy controls on lignite- and coal-fired generation than carbon prices.

## EU and German policy: a risk of direct controls on coal?

From a national and international political perspective, two key events in the autumn will be (i) the general election in Germany on 24 September, and (ii) *the next major UN climate-change summit (COP-23)* in November. COP-23 will be of particular interest in Germany, as although the formal host is Fiji, the COP itself will be held in Bonn, which also happens to be the headquarters of the UNFCCC. As a result, to the extent that climate change and policies to address it will be in the spotlight in November, Germany and its climate policies will inevitably be under scrutiny again, from other countries, from NGOs, and from German public opinion.

Germany has led the world in terms of the global renewable-energy revolution, but it has had a glaring weakness in its climate-change record, namely the fact that emissions from fossil-fuel-fired power plants generally, and from coal-fired power plants in particular (both lignite and hard coal) have barely declined since 2005.

This could undermine Germany's credibility as an international leader on climate change, as demonstrated earlier this year ahead of the G20 conference hosted by Germany as President of the G20, when US Energy Secretary Rick Perry publicly berated Germany for what he perceived to be the gap between Germany's rhetoric and its actions on climate change.<sup>5</sup>

<sup>4</sup> This is not a foregone conclusion as Norway and Liechtenstein both participate in the EU-ETS even though they are not member states of the ERU, and Switzerland recently opted to link with the EU-ETS as well.

<sup>5</sup> See the *Huffington Post* article of 25 April 2017, in which Secretary Perry was quoted as follows: "You have Germany, for instance, who has made the decision to go away from coal, to get out of the nuclear business, to double down, to hear them tell it, on renewables. But the fact is their emissions have gone up because they're using more coal, and they're using coal that is not clean technology."

In addition, Germany's emissions from coal are also a source of concern for public opinion. According to a survey of public opinion published only a few days ago (24 August) carried out earlier this month on behalf of the NGO Bund für Umwelt und Naturschutz Deutschland (BUND, or Friends of the Earth Germany),<sup>6</sup> 59% of those polled were in favour of shutting down coal-fired plants "soon", 72% were in favour of the next German Government setting out a "roadmap" for the phase-out of coal, and 73% were in favour of measures being taken to ensure that Germany can meet its 2020 emissions target.

Against this backdrop, we see two key policy issues to watch for over the autumn that could increase the political pressure for more direct measures on reducing emissions from lignite- and coal-fired power generators above and beyond carbon pricing. On a worst-case basis, we think this could ultimately mean further mandated lignite- and coal-plant shutdowns or limits on running hours for the older and dirtier capacity before 2020.<sup>7</sup> These two policy issues are (i) the recently passed tightening of EU air-quality standards, and (ii) Germany's domestic 2020 emissions target.

### EU air-quality standards to increase pressure on coal and lignite from 2021

Earlier this month, the EU Official Journal published the implementing decision on the new and legally binding air-quality standards for Large Combustion Plants (LCP) in accordance with the so-called LCP BREF (BREF standing for best available techniques reference documents).<sup>8</sup> The LCP BREF is part of the EU's 2010 Industrial Emissions Directive (IED).

The new regulations will come into force in four years (17 August 2021) and the standards define emission limits for NO<sub>x</sub>, SO<sub>2</sub>, dust, and mercury based on best-available techniques (BATs). Accordingly, they are set to increase costs for lignite- and coal-fired power plants in particular. EU member states agreed the standards with the European Commission in April, albeit in the face of German resistance (Germany was concerned about a number of its lignite stations not being able to meet the new NO<sub>x</sub> standard). National authorities must refer to these standards when setting permit conditions for power stations, although derogations from the new stricter standards may be possible on a case-by-case basis and allowing for public consultation. Without such derogations, the affected plants could face closure or greatly reduced operation of 1,500 hours/year. According to Platts Analytics' PIRA,<sup>9</sup> there is 9.8GW of lignite capacity in Germany that does not have the necessary NO<sub>x</sub> controls installed (although 2.7GW of this has already been committed to enter the special stand-by reserve over 2017-21).

This revised IED legislation will add further pressure to older lignite and hard-coal generation plants across the EU, and in the end we think the amount of capacity at risk of early closure or greatly reduced running hours as a result of the LCP BREF will come down to a cost/benefit analysis of whether it makes economic sense to invest in the necessary equipment to make them compliant with the new standards by 2021. In turn, we think this will also depend crucially on the outcome of the ongoing EU-ETS reform process. Other things being equal, the higher any increase in the EU carbon price over the next four years resulting from the final EU-ETS reform deal, then the greater risk that more of the older lignite and coal capacity will not be worth upgrading to comply with the new IED standards.

<sup>6</sup> See the [press release published by BUND on 24 August](#) (in German).

<sup>7</sup> We say "further" mandated closures because Germany established a special reserve for 2.7GW of old lignite capacity (1.5GW of which belongs to RWE) in October 2015 (see [the press release from the German Ministry for Economy and Energy](#), 24 October 2015 [in German only]). Under the terms of this special reserve, the 2.7GW will be taken out of normal service on a phased basis between 2016 and 2023, with each plant to be kept in the reserve for four years and to be used for generating only as a last resort and receiving capacity payments over these four years in the meantime, after which they will be shut down permanently. The point about this measure is that it was taken explicitly in order to help Germany meet its domestic 2020 emissions target.

<sup>8</sup> We covered this in our [Switched On daily of 18 August](#).

<sup>9</sup> As quoted in Platts European Power Daily of 18 August, and referenced in our [Switched On daily of 18 August](#).

Indeed, given the lead time of four years before the BAT BREF standards come into force, it will likely be more the perception of how carbon prices will develop over 2021-30 that will determine how confident plant operators are to make the necessary capital expenditure to upgrade older non-compliant plants.

According to the German Lignite Association,<sup>10</sup> as of 1 January 2017 Germany had a total of 22.7GW of installed lignite capacity, of which 2.7GW is committed to the special reserve. This means Germany now has a total of 20GW of lignite capacity available for generation, and according to the recent Platts Analytics' PIRA study we referenced above ~7GW of this operating capacity does not meet the upgraded air-quality standards under the revised IED.

How much of this might ~7GW potentially at risk of needing to upgrade or close/reduce running hours from 2021 is owned by RWE and Uniper?

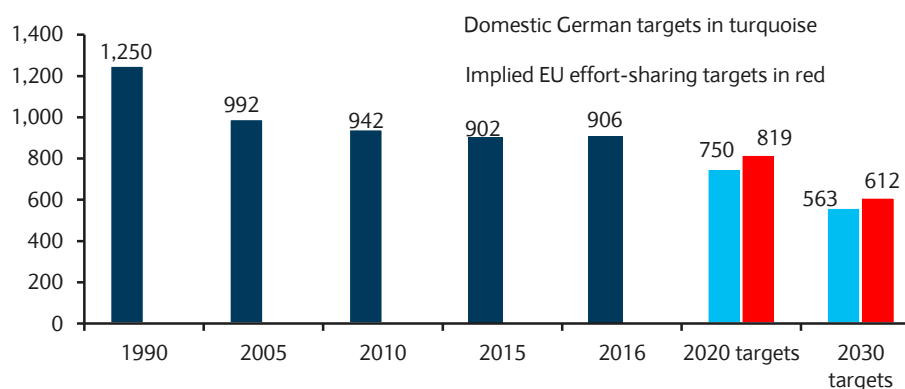
We do not know the answer to this question, but RWE owns more lignite capacity than any other operator in Germany (10.2GW in total or 8.7GW of operating capacity after excluding the 1.5GW it has committed to the special reserve), so we think it reasonable to assume that at least some of the ~7GW at risk might belong to RWE. Uniper, by contrast, has a much lower exposure to lignite, with an economic interest in only 500MW. Again, we do not know whether this would be part of the ~7GW at risk of having to upgrade or face potential closure or reduced running hours from 2021, but in any case we think the impact on Uniper would be small even if this were part of the affected ~7GW of capacity.

In short, we think pressure is set to build on Germany's old lignite plants (and probably some of its old coal plants as well) in the run-up to the implementation of the new IED air-quality standards in 2021, and RWE and perhaps also Uniper may well be affected as a consequence.

### Germany's 2020 GHG-emissions target: how to plug the gap?

Figure 8 shows Germany's GHG emissions over 1990-2016, together with its targets for 2020 and 2030.

FIGURE 8  
German GHG emissions 1990-2016, broken down by CO2 and other GHGs (Mt)



Source: European Commission, German Environment Agency

As can be seen, Germany has two targets for both 2020 and 2030:

<sup>10</sup> See *Lignite in Germany: Facts and Figures 2016*, published by the Bundesverband Braunkohle (German Lignite Association) in February 2017.

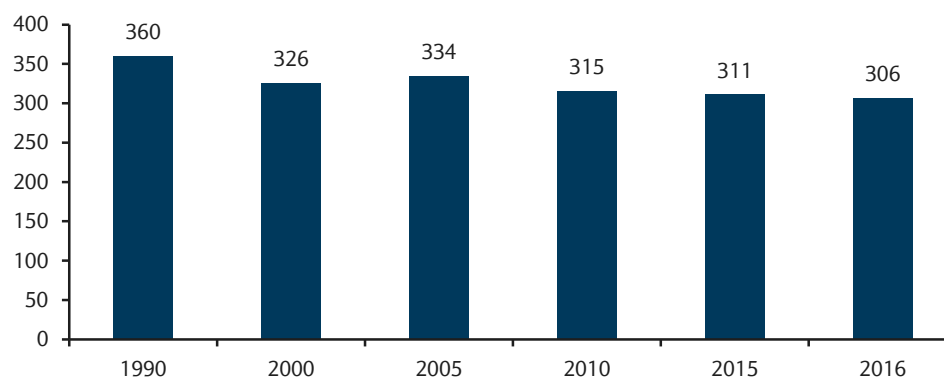
- (i) domestic targets that are extremely ambitious but not legally binding (these domestic targets are shown in the turquoise bars in Figure 8, and are 750Mt for 2020 and 563Mt for 2030);
- (ii) the targets agreed under the EU's effort-sharing agreement, which are legally binding under EU Law (these are shown in the red bars in Figure 9, and are 819Mt for 2020, and 612Mt for 2030).

We think that Germany will be able to meet its EU-mandated and legally binding target of 819Mt by 2020 without too much difficulty. This might sound surprising given that even the EU target of 819Mt looks a big stretch against Germany's 2016 emissions of 906Mt. However, the point to remember about the EU target is that although it is legally binding it does not actually require emissions to fall physically to 819Mt. This is because the sectors covered by the EU-ETS are allowed to use EUAs to offset any emissions above their nominal cap, and as there is a very large accumulated surplus of EUAs in the market this means EU-ETS operators will easily be able to comply with their implied sectoral targets, and hence that Germany overall will be able to comply with its 2020 EU target.<sup>11</sup>

However, whether Germany will be able to meet its domestic 2020 target of a -40% reduction is quite another matter. As shown in Figure 8 above, the gap to the domestic target at the moment is ~150Mt at the moment (emissions of 906Mt in 2016 versus a target of 750Mt by 2020). Moreover, unlike Germany's 2020 EU target, the domestic target is a hard cap, i.e. for the target to be achieved physical emissions do actually have to fall to this level. Against that, it is also true that, as distinct from Germany's EU target, the domestic target is not formally legally binding. However, we think it would be politically embarrassing for Germany to fall short of this goal, and the further by which it were to fall short, the more embarrassing we think it would be.

It is against this backdrop that Germany's power-sector has such a problem (Figure 9).

FIGURE 9  
CO2 emissions from German power generation, 1990-2016 (Mt)



Source: German Environment Agency, Agora Energiewende

As can be seen, Germany's CO2 emissions from power generation in 2016 were only 54Mt lower than in 1990 (306Mt versus 360Mt), a drop of only 15%. This compares very unfavourably with the 28% drop over the same period in Germany's total emissions. To put

<sup>11</sup> All of which is another way of saying that the EU-ETS cap is a soft cap. This is precisely why, in the face of the large accumulated EUA surplus, it now needs reform in order to re-establish price tension. We discussed the difference between a hard cap and a soft cap in detail in our in-depth research report of 1 September last year, *German Utilities: Scoping the Tragedy of the Horizon* (see pages 18-20).

it in the starkest terms, over 1990-2016, Germany reduced its overall emissions at very nearly twice the rate that its power sector managed to do. In our view, this makes the power sector very vulnerable to any incremental measures that the next German Government might take in order to attempt to close the very large gap to its 2020 domestic target.

Whether the next Government will in fact take further measures above those already implemented remains to be seen, but as we indicated above, the spotlight will be on Germany's climate policy in the autumn, the current level of power-sector emissions is a weak spot for Germany on the international stage, and public opinion seems to want clarification of how the domestic 2020 target will be met, and of how the Government intends to manage the phase-out of coal altogether beyond 2020.

A final point worth bearing in mind is that Chancellor Merkel's CDU/CSU party manifesto for the forthcoming election re-affirmed the party's commitment to meeting Germany's existing domestic targets in line with the Climate Action Plan 2050 approved by the current Government in November 2016.<sup>12</sup> It is true that the manifesto states that the CDU/CSU "rejects direct state intervention" with a view to reaching these targets and prefers "to rely on market instruments", but against that it is worth making two points: (i) the current government (albeit a coalition between the CDU/CSU and the SPD), has already introduced direct measures in the form of the special reserve for lignite, and it may well be that the CDU/CSU find themselves in coalition with the SPD again after 24 September; (ii) the most obvious market measure to enable Germany to meet its domestic 2020 target would be to introduce a top-up price for carbon as the UK Government did in 2011.

In short, we think that the 2020 domestic emissions target represents a further risk for Germany's power generators regarding potential further measures to reduce emissions before 2020. And given its more carbon-intensive generation portfolio, we think RWE is much more exposed to this risk than Uniper.

### Indirect policy implications: the impact on E.ON and Innogy

With both RWE and Uniper directly exposed to carbon and climate-policy outcomes and signals this autumn, E.ON and Innogy stand to be affected indirectly.

For E.ON, with Uniper positively geared in our view to a tighter carbon market and tougher climate policy more generally, the value of E.ON's 46.65% stake could appreciate in value if the EU-ETS reform sends a clear signal that the market will tighten from 2019. This would be helpful timing ahead of a potential sale of E.ON's Uniper stake in Q1 2018. For Innogy, if the carbon and climate-policy outcomes and signals in the autumn indicate a much tougher future for carbon-intensive generators, we think this could prompt RWE to consider selling down a significant part of its 76.8% stake in order to fund an acquisition to hedge a significant part of the carbon/climate risk in its existing portfolio.

### Autumn's auguries: policy outcomes key for RWE's strategy

Autumn will be policy heavy for RWE and Uniper, and policy outcomes and signals could be decisive for RWE in determining whether it decides to make a bid for Uniper or not. With this in mind, it is to a more detailed look at the potential attractions of an RWE bid for Uniper that we now turn.

<sup>12</sup> See the CDU/CSU manifesto *Für ein Deutschland in dem wir gut und gerne leben: Regierungsprogramm 2017-2021* (pages 68-69, in German), published July 2017.

## TO BID, OR NOT TO BID, THAT IS THE QUESTION

In this section we update our analysis of the industrial and financial rationale for RWE to make a bid for E.ON's stake in Uniper (and by extension for full ownership and control), taking our updated numbers for RWE and Uniper subsequent to their recent H1 results.<sup>13</sup> As with our previous analysis, we set out what we think would be the pros and cons of RWE bidding for Uniper, and continue to think that there would be considerable strategic logic to such a deal given the overlap and complementarity in the two companies' portfolios. We still see obstacles as well, but do not think that any of these are insurmountable given the industrial rationale.

Moreover, on our updated earnings and valuation numbers for RWE and Uniper, our updated scenario analysis continues to indicate that an RWE bid for Uniper could be financially attractive to RWE, with 2018E EPS accretion ranging from 16%-24% depending on the assumptions made about the price paid for Uniper and the price achieved by RWE for selling a 25.8% stake in Innogy in order partially to fund the deal. Our scenario analysis also indicates that the impact on RWE's leverage would likely be positive to only mildly negative.

Time will tell whether RWE ends up making a bid or not, but we think policy developments this autumn around the EU-ETS reform and the outcome of Germany's election will be key to management's decision-making process.

### RWE will not rule out a bid for E.ON's stake in Uniper

On the listing of Uniper in September 2016 E.ON reduced its stake from 100% to 46.65%, and it made clear at that time it would look to sell the remainder of its stake in due course. In recent months, guidance has become much more specific, with E.ON stating at its FY2016 results in March that it will exit as soon as it is possible to avoid incurring tax liabilities. This means a sale can be entered into and effected any time from January 2018.<sup>14</sup>

We think Uniper is an attractive asset both for institutional investors and industrial buyers. For institutional investors it offers a strong commitment to cash generation and dividends and, for the right industrial buyer or buyers, an opportunity to enhance their positioning in core markets with the added allure of optionality on a tighter EU carbon market/German climate policy going forward. With a current market cap of ~€7.6bn, and Barclays 2018E projected economic net debt of ~€2.2bn, giving Uniper an EV of ~€9.8bn, we also think Uniper is of a digestible size for an industrial buyer.

### A reminder on the speculation over a potential bid for E.ON's Uniper stake

Media reports over potential M&A activity in the European utility sector started to appear in March of this year, with both Fortum<sup>15</sup> (not covered by Barclays Research) and RWE<sup>16</sup> being referenced at that time as potential bidders for E.ON's stake in Uniper (and by extension as possible bidders for strategic control).

Fortum was mentioned because it has a degree of overlap with Uniper in the Nordic region and Russia, and because the CEO said publicly in March that "our first priority is generation consolidation in Europe".<sup>17</sup>

<sup>13</sup> We first did this analysis in our report *Renewed Spark* (pages 33-36), 12 June 2017.

<sup>14</sup> We hosted E.ON CFO Dr. Marc Spieker on a roadshow on 29 March in London and he stated that for tax reasons E.ON could not enter into any commitment to sell its stake in Uniper before January 2018.

<sup>15</sup> See for example the report by Power Engineering International of 23 March 2017, *Fortum on Acquisition Trail*, and the Bloomberg report of 31 May 2017, *Fortum Considers Bid for E.ON's Fossil-Fuel Spinoff Uniper*.

<sup>16</sup> See for example the Reuters report of 13 March 2017, *RWE weighs options as utility M&A talk picks up*, the Bloomberg report of 15 March 2017 *German Energy Faces Turbulence as CEOs Prepare for Deals*, and the Daily Telegraph report of 18 April 2017, *RWE's appetite for deals hones in on UK energy market*.

<sup>17</sup> Again, see the article in Power Engineering International of 23 March.

RWE was mentioned because it indicated at both its FY results in March<sup>18</sup> and its subsequent CMD that it could be interested in growth opportunities in conventional generation in its core markets, and since March it has refused to rule out a bid for E.ON's stake in Uniper, consistently saying instead that it would look at "all options".

We do not find RWE's refusal to rule out a bid for Uniper surprising, as the attractions seem clear enough to us. RWE and Uniper have significant overlap and complementarities in their power businesses in Germany, the UK, and the Netherlands, and although Uniper has assets in Sweden and Russia that would not be a strategic fit – RWE CEO Rolf Martin Schmitz emphasised this point in a press interview in April<sup>19</sup> – we do not see this as an insurmountable barrier to a bid. Indeed, in his comments at the press conference for RWE's H1 results on 14 August, we detect a softening in tone with regard to Mr. Schmitz's attitude towards those parts of Uniper's portfolio that are not of strategic interest to RWE.<sup>20</sup>

Above all, we think the attraction of Uniper to RWE lies in Uniper's much less carbon-intensive portfolio of generation assets. As explained in the previous section above, RWE faces a major strategic challenge going forward as its large portfolio of lignite-fired generation assets makes it vulnerable to any tightening of EU and German climate policy and carbon pricing. In stark contrast, Uniper offers positive gearing to higher carbon prices with its portfolio of hydro and gas assets. As a result, we think Uniper offers a very attractive hedge on the generation side for RWE against tighter EU and German climate policy going forward.

Against this background, we would list four main arguments in favour of an RWE bid for Uniper, and three arguments that could be made against.

### **RWE and Uniper: arguments in favour of a bid**

We see three main reasons in favour of RWE bidding for Uniper:

- 1) We know the E.ON stake in Uniper is for sale from January 2018 and that E.ON is open to industrial buyers. This could be a once-in-a-lifetime opportunity to bid for RWE's closest peer and traditional rival.
- 2) With its 76.8% stake in Innogy (which it can sell down to 51% without requiring the prior consent of the supervisory board), RWE has the liquid means to enable it to bid for Uniper mainly or in large part in cash (the current market value of a 25.8% stake in Innogy is ~€5.3bn).
- 3) Most importantly in our view, Uniper's asset portfolio in Germany, the UK, and the Netherlands would complement RWE's portfolio very well. In particular, we think that Uniper's hydro and gas-fired generation assets in Germany would offer a hedge against RWE's exposure to higher carbon prices and/or other potential policy measures designed to penalise carbon-intensive generation in future.
- 4) We think there would also be potential synergies to be realised from merging RWE's Supply-and-trading business with Uniper's Global Commodities division

### **RWE and Uniper: arguments against a bid**

We see three main reasons against RWE bidding for Uniper:

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<sup>18</sup> Again, see the Reuters article of 13 March 2017, *RWE weighs options as utility M&A talk picks up*

<sup>19</sup> See the report of 15 April 2017 in the Rheinischer Post, *RWE will Energie-Feuerwehr sein*.

<sup>20</sup> According to a Reuters article of 14 August 2017 (*RWE CEO, asked about Uniper, says considering all options*), at the press conference held to comment on RWE's H1 results Mr. Schmitz said that RWE had no interest in being a "long-term" shareholder in nuclear power stations outside Germany. We think this could be read to mean that RWE might be willing to hold such assets for a limited period if this made sense as part of a bigger strategic transformation of the company.

- 1) Although E.ON is very much open to industrial buyers, RWE is E.ON's traditional rival, and even now it may not be entirely indifferent as to whom it would prefer to sell to.

That said, E.ON must act in the best interests of its own shareholders, which means extracting the most value from the opportunities available to it. And with the potential synergies available between RWE's and Uniper's respective power and commodities businesses, it might well be that RWE could offer the best deal for E.ON's stake.

- 2) Uniper has assets in Sweden and Russia that would not be a strategic fit and that would therefore complicate any bid by RWE on its own for Uniper.

However, we do not see this as an insurmountable barrier, and as mentioned above, we detect a recent softening in RWE's tone on this point.

- 3) However sound the strategic logic of RWE bidding for Uniper might appear, there may be doubts amongst management, and/or the supervisory board, and/or shareholders, and/or the credit-rating agencies about the wisdom of selling down a further significant chunk of Innogy (with its stable dividend) to acquire what is an intrinsically more volatile business facing many of the same risks that RWE itself faces.

On the other hand, RWE has made it clear in recent months that it sees its future as an industrial company rather than a financial-holding company, so at some point it will likely be looking to divest at least a further chunk of its Innogy stake, and we think it would make sense to do this as part of a strengthening of its core industrial business.

In short, we think there are strong strategic arguments in favour of a bid, and that while there are certainly arguments that can be made against we do not think that any of these would necessarily be enough to outweigh the industrial logic of merging the portfolios of the two companies where they overlap and have complementarity.

Given that there seems to be a strong *prima facie* logic to RWE considering a bid for Uniper, the next question is what the economics of such a deal might look like.

## Potential economics of a potential RWE bid for Uniper

What would a potential RWE bid for Uniper look like from a financial point of view, assuming that RWE were to sell down 25.8% of Innogy as part of its funding strategy? What might the impact on RWE's earnings and ND/EBITDA ratio be within the kind of parameters that seem reasonable to assume for the purposes of a scenario analysis?

We think that RWE would be starting from a favourable position, as Innogy currently trades at a significant premium to Uniper on a P/E basis (on our numbers, 15.4x and 11.6x for 2018 respectively<sup>21</sup>), while Uniper has a significantly lower ND/EBITDA ratio than RWE (we project 1.4x and 4.1x respectively for 2018).

This suggests that even allowing for a premium to the current Uniper share price, an acquisition at the right price might be both accretive from an earnings perspective and digestible from a leverage perspective.

### *Scenario analysis of a potential RWE bid for Uniper*

Figure 10 shows a range of options for a potential acquisition of Uniper by RWE assuming a range of prices for Uniper, a range of prices for a sale of 25.8% of RWE's Innogy stake, and a range of incremental debt assumed by RWE to cover the residual cost of acquiring Uniper's equity.

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<sup>21</sup> Based on closing share prices on 24 August 2017.

FIGURE 10

**Stylised scenarios for a potential RWE bid for Uniper funded by sell-down of a 25.8% stake in Innogy and new debt**

|                                              | Scenario 1: Uniper acquired at €19.2/share, Innogy sold at €37.3/share | Scenario 2: Uniper acquired at €21.8/share, Innogy sold at €34/share | Scenario 3: Uniper acquired at €26.2/share, Innogy sold at €31.8/share |
|----------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
| Cost of acquiring Uniper's equity (€ m)      | 7,027                                                                  | 7,979                                                                | 9,575                                                                  |
| Proceeds from sale of 25.8% of Innogy (€ m)  | 5,351                                                                  | 4,877                                                                | 4,562                                                                  |
| New debt assumed to fund balance             | 1,677                                                                  | 3,102                                                                | 5,013                                                                  |
| Extra financing charges (at 30% tax rate)    | 47                                                                     | 87                                                                   | 140                                                                    |
| Share of Innogy ANI* forgone                 | 348                                                                    | 348                                                                  | 348                                                                    |
| Uniper ANI* acquired                         | 659                                                                    | 659                                                                  | 659                                                                    |
| Net increase in RWE ANI*                     | 264                                                                    | 224                                                                  | 171                                                                    |
| Barclays current forecast for RWE 2018E ANI* | 1,083                                                                  | 1,083                                                                | 1,083                                                                  |
| Implied 2018E RWE ANI under each scenario    | 1,347                                                                  | 1,307                                                                | 1,254                                                                  |
| <b>2018 EPS accretion</b>                    | <b>24%</b>                                                             | <b>21%</b>                                                           | <b>16%</b>                                                             |

Source: Barclays Research estimates. \* ANI = Adjusted Net Income: Note that for the 2018E ANI of both Uniper and RWE we take consensus estimates as shown either on Bloomberg (Uniper) or the company's own consensus numbers (RWE).

Figure 11 then shows the impact on RWE's ND/EBITDA ratio of a bid for Uniper under each of these three scenarios.

FIGURE 11

**Impact on RWE's ND/EBITDA ratio of a potential bid for Uniper under Barclays' stylized scenarios**

|                                                  | Scenario 1: Uniper acquired at €19.2/share, Innogy sold at €37.3/share | Scenario 2: Uniper acquired at €21.8/share, Innogy sold at €34/share | Scenario 3: Uniper acquired at €26.2/share, Innogy sold at €31.8/share |
|--------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
| Barclays current 2018 base case for RWE          | 3.9                                                                    | 3.9                                                                  | 3.9                                                                    |
| Barclays current 2018 base case for Uniper       | 1.4x                                                                   | 1.4x                                                                 | 1.4x                                                                   |
| <b>Implied RWE ND/EBITDA under each scenario</b> | <b>3.6x</b>                                                            | <b>3.8x</b>                                                          | <b>4.1x</b>                                                            |

Source: Barclays Research estimates. \* ANI = Adjusted Net Income

**Scenario 1:** This assumes RWE sells down 25.8% of its Innogy stake at €37.3/share (our upside case for Innogy), and acquires Uniper at €19.2/share (our current price target for Uniper).

On this basis, RWE would need to raise €1,677m in new debt, and assuming an interest rate of 4% (the current average cost of RWE's debt) and a tax rate of 30% this would imply extra annual post-tax interest costs of €47m.

Adjusting for the share of Innogy's adjusted net income it would lose if it were to sell 25.8% (€348m) and the claim on 100% of Uniper's ANI it would acquire (€659m), we calculate that under this scenario RWE's 2018E adjusted net income would increase by €264m, implying EPS accretion of 24%.

In terms of leverage, we calculate that RWE's 2018E ND/EBITDA ratio would actually drop under this scenario to 3.6x from the 4.1x we are projecting in our updated RWE earnings model.

**Scenario 2:** This assumes a sale price of €34/share for 25.8% of Innogy (consistent with our current share-price target), and an acquisition price of €21.8/share for Uniper (our upside case for Uniper). On this basis, we calculate that RWE's 2018E Adjusted net income would increase by €224m, implying EPS accretion of 21%.

In terms of leverage, we calculate that RWE's 2018E ND/EBITDA ratio would again drop under this scenario, albeit more modestly, to 3.8x from the 3.9x we are projecting in our current RWE earnings model.

**Scenario 3:** This assumes a sale price of €31.8/share for 25.8% of Innogy (our downside case), and an acquisition price of €26.2/share for Uniper (this is a 20% premium to our upside case for Uniper, and is based on the more aggressive assumption that any bid for full control of Uniper would require a significant premium to be paid). Under this scenario, we calculate that RWE's 2018E adjusted net income would increase by €171m, implying EPS accretion of 16%.

In terms of leverage, we calculate that RWE's 2018E ND/EBITDA ratio under this scenario would be 4.1x, a bit higher than the 3.9x under our current base-case modelling for RWE.

*Conclusion: a bid by RWE for Uniper could be financially attractive*

Our simple scenario analysis above suggests that a bid by RWE for Uniper could be very attractive financially, especially as we have not here attempted to factor in any of the synergies that RWE could be expected to achieve from merging the two companies' portfolios.

## Conclusion: policy outcomes this autumn key for RWE

We think that RWE could make a strong case for the industrial logic of bidding for Uniper, and on a *prima facie* basis our scenario analysis above suggests the economics could be attractive even before factoring in synergies (ultimately, though, of course, it would all depend on the price paid for Uniper and the price at which the Innogy stake could be sold).

However, and as we mentioned above, reducing its stake in Innogy as a way of partially funding an acquisition of Uniper would, in our view, significantly change the risk profile of RWE. As a result, we think such a move might raise doubts amongst management, and/or the supervisory board, and/or shareholders, and/or the credit-rating agencies about the wisdom of such a strategy.

In short, whilst we see clear industrial logic in RWE potentially bidding for Uniper, and a *prima facie* financial rationale, we also think that the complications we have outlined mean that it is still far from a foregone conclusion that it will in fact bid for E.ON's stake (and by extension full control) as and when E.ON decide to sell.

However, we think that policy and political events in the autumn will be key to determining whether RWE's management decides to proceed with a bid or not.

In particular, if the outcome of the EU-ETS reform process is a final package that looks as if it will tighten the EU carbon market significantly from 2019 onwards, we think this would make RWE more likely than not to make a bid for Uniper.

Similarly, if the incoming German Government after the federal election on 24 September signals its intent to make a "best-efforts" attempt to get as close as possible to Germany's 2020 emissions target, then we think that this too would make RWE more likely than not to make a bid for Uniper.

As such, we think the policy auguries of autumn will be a key factor – perhaps *the* key factor – in RWE's decision-making process as it considers what to do with regard to the opportunity offered by E.ON's expected sale of Uniper any time from January 2018.

| European Utilities |  |  |  |  | Industry View: NEUTRAL   |
|--------------------|--|--|--|--|--------------------------|
| E.ON (EONGn.DE)    |  |  |  |  | Stock Rating: OVERWEIGHT |

| Income statement (€mn) | 2016A  | 2017E  | 2018E  | 2019E  | CAGR  |
|------------------------|--------|--------|--------|--------|-------|
| Revenue                | 38,173 | 37,706 | 37,470 | 37,526 | -0.6% |
| EBITDA (adj)           | 4,939  | 4,786  | 4,742  | 4,821  | -0.8% |
| EBIT (adj)             | 3,112  | 2,924  | 2,839  | 2,933  | -2.0% |
| Pre-tax income (adj)   | 1,660  | 2,158  | 2,118  | 2,246  | 10.6% |
| Net income (adj)       | -8,450 | 1,297  | 1,328  | 1,396  | N/A   |
| EPS (adj) (€)          | 0.46   | 0.61   | 0.63   | 0.66   | 12.4% |
| Diluted shares (mn)    | 1,952  | 2,152  | 2,152  | 2,152  | 3.3%  |
| DPS (€)                | 0.21   | 0.30   | 0.41   | 0.46   | 29.9% |

|                     |           |
|---------------------|-----------|
| Price (24-Aug-2017) | EUR 9.43  |
| Price Target        | EUR 10.50 |

**Why Overweight?** E.ON is now on track to over-achieve against its medium-term deleveraging target, and we have raised our DPS projections by an average of 25% per year over 2018-20. With further deleveraging measures worth ~€4-€5.5bn (0.8x-1.3x off the ND/EBITDA ratio) likely in 2018, we see continuing momentum and potential for further uplifts to the dividend in Q1 2018.

| Margin and return data   | Average |      |      |      |      |
|--------------------------|---------|------|------|------|------|
| EBITDA (adj) margin (%)  | 12.9    | 12.7 | 12.7 | 12.8 | 12.8 |
| EBIT (adj) margin (%)    | 8.2     | 7.8  | 7.6  | 7.8  | 7.8  |
| Pre-tax (adj) margin (%) | 4.3     | 5.7  | 5.7  | 6.0  | 5.4  |
| Net (adj) margin (%)     | -22.1   | 3.4  | 3.5  | 3.7  | -2.9 |
| ROIC (%)                 | 4.7     | 4.3  | 4.1  | 4.2  | 4.4  |
| ROA (%)                  | 2.5     | 3.3  | 3.3  | 3.3  | 3.1  |
| ROE (%)                  | 70.2    | 33.4 | 19.2 | 18.1 | 35.2 |

|             |           |
|-------------|-----------|
| Upside case | EUR 11.50 |
|-------------|-----------|

Assumes (i) that a third party makes a bid for E.ON's stake in Uniper at a 25% premium to our fair value for Uniper, and (ii) that the GBP strengthens against the EUR by 10% from 2018 onwards versus our base case (to €1.22 versus €1.11 in our base case).

|               |          |
|---------------|----------|
| Downside case | EUR 9.10 |
|---------------|----------|

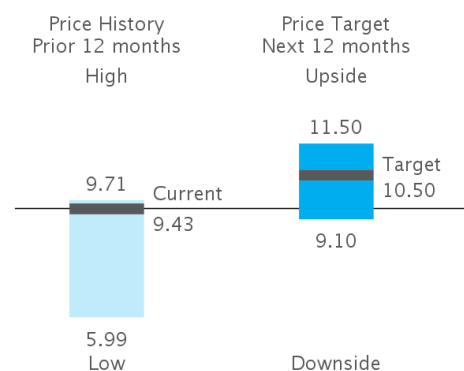
Assumes (i) E.ON loses 5% of German retail customers per annum over the next few years driven by the very competitive nature of the business in Germany and that the value of the UK retail business falls to zero, and (ii) that the GBP weakens against the EUR by 10% from 2018.

| Cash flow and balance sheet (€mn) | CAGR   |        |        |        |       |
|-----------------------------------|--------|--------|--------|--------|-------|
| Cash flow from operations         | 2,961  | -6,115 | 3,454  | 3,527  | 6.0%  |
| Capital expenditure               | -3,169 | -3,648 | -2,965 | -2,270 | N/A   |
| Free cash flow                    | -1,232 | -2,974 | 0      | 0      | N/A   |
| Net PP&E                          | 25,242 | 27,028 | 28,089 | 28,471 | 4.1%  |
| Total net assets                  | 88,111 | 92,278 | 94,237 | 95,426 | 2.7%  |
| Capital employed                  | 47,801 | 49,056 | 49,829 | 49,928 | 1.5%  |
| Shareholders' equity              | -1,055 | 4,057  | 4,766  | 5,312  | N/A   |
| Net debt/(funds)                  | 26,320 | 22,252 | 22,536 | 21,902 | -5.9% |

| Valuation and leverage metrics | Average |       |      |      |      |
|--------------------------------|---------|-------|------|------|------|
| P/E (adj) (x)                  | 20.4    | 15.4  | 15.1 | 14.3 | 16.3 |
| EV/EBITDA (adj) (x)            | 10.1    | 9.6   | 9.7  | 9.2  | 9.6  |
| EV/NOPAT (x)                   | 22.3    | 21.7  | 22.4 | 21.1 | 21.9 |
| Equity FCF yield (%)           | -6.7    | -14.7 | 0.0  | 0.0  | -5.3 |
| P/BV (x)                       | 14.3    | 3.1   | 2.7  | 2.5  | 5.6  |
| Dividend yield (%)             | 2.2     | 3.2   | 4.3  | 4.9  | 3.7  |
| EV/IC (x)                      | 1.0     | 0.9   | 0.9  | 0.9  | 1.0  |
| Net debt/EBITDA (adj) (x)      | 5.3     | 4.6   | 4.8  | 4.5  | 4.8  |

| Selected operating metrics    | Average |        |        |        |        |
|-------------------------------|---------|--------|--------|--------|--------|
| Total installed capacity (MW) | 12,397  | 12,413 | 12,949 | 13,229 | 12,747 |
| Total power output (GWh)      | 56,115  | 55,992 | 56,246 | 56,837 | 56,297 |
| RAB (€mn)                     | 18,828  | 19,420 | 19,783 | 20,166 | 19,549 |

#### Upside/Downside scenarios



Source: Company data, Barclays Research  
Note: FY End Dec

## E.ON (OW, PT RAISED TO €10.5 FROM €9.4): DELEVERAGING AND DELIVERING

**Investment thesis**

After winning its legal appeal against the Nuclear Fuel Tax, E.ON's financial position has improved substantially. In late June, the German Government reimbursed €2.85bn paid by E.ON over 2011-16 and the Group will receive a further €450m of accrued interest later this year (giving a total post-tax cash influx of ~€2.8bn). This boost to its balance sheet means that E.ON is now on track to over-achieve against its medium-term deleveraging target of 4x ND/EBITDA while also being able to offer a more generous payout policy (management is now targeting a payout ratio of "at least 65%" versus 50-60% previously). On our updated numbers, E.ON's ND/EBITDA ratio falls to 4.3x by 2020E (versus 4.5x previously) even though we raise our DPS projections by an average of 25% per year over 2018-20. And with further deleveraging measures worth ~€4-€5.5bn (0.8x-1.3x off the ND/EBITDA ratio) likely in 2018, we think E.ON has the potential for further uplifts to dividend guidance as and when these measures are triggered. In this respect, the next key event will likely be the disposal of E.ON's 46.7% stake in Uniper (currently worth ~€3.55bn), with a sale being targeted for Q1 2018, and with Uniper potentially set to benefit before that from the finalisation of the EU-ETS reform package this autumn. On our updated numbers, E.ON now offers a dividend yield of 4.3% in 2018, rising to 5.2% in 2020, making it competitive with Innogy but with stronger momentum and potential catalysts for a further re-rating within the next six months. After updating our SOTP valuation in light of the H1 results, we upgrade our PT to €10.5 from €9.4, and remain OW.

**Valuation and PT raised to €10.5:** We make three main changes to our SOTP valuation. First, we raise the value of the Renewables business. On our updated EBITDA forecasts, E.ON's renewable business is set to grow slightly more quickly than we were previously assuming, with the Rampion and Arkona offshore-wind projects coming on-stream in 2018 and 2019 respectively. With a projected CAGR in EBITDA of 8% over the three years 2017-20, the Renewables division is now valued at 11.5x 2017 EBITDA versus 10.9x previously. Second, we reduce our estimates for corporate-overhead costs going forward, and take out all non-interest bearing provisions from our valuation such that we now deduct only the rating agencies' definition of economic net debt from our EV (+€0.4/share). Third, with the H1 numbers providing clarity on the post-tax impact of the NFT refund, we now assume an extra cash influx of €530m by year-end (+€0.2/share).

**Upside potential and momentum justify continued OW:** On our updated numbers, E.ON trades on metrics very similar to those of its closest peer, Innogy: both are trading on a 2018E P/E multiple of ~15x, and on a 2019E dividend yield of ~5%. However, E.ON offers a further 10% potential upside to our revised PT while Innogy is currently trading above our revised PT of €34. Moreover, we think the E.ON story has continuing momentum going into Q4, with the targeted disposal of Uniper in Q1 2018 coming into view. Moreover, while there is execution risk attached to the Uniper disposal, we think Uniper itself is set to benefit from the finalisation of the EU-ETS reform package in the autumn, thus potentially increasing its attractiveness for potential bidders.<sup>22</sup>

**Risks to thesis and valuation:** The main downside risks we see are (i) further competitive and regulatory pressure on retail supply in the UK and Germany, and (ii) the risk of a sustained weaker British Pound (a 10% reduction in the £/€ exchange rate from our base case of €1.11 would have a negative impact of €0.6/share on our SOTP valuation).

<sup>22</sup> This assumes that the final package agreed is in line with the key points we highlighted in our report *Carbon Carnival* (7 March 2017).

## Raising PT to €10.5 from €9.4, remain OW

Figure 12 shows our updated SOTP valuation for E.ON. Our revised fair value for the Group's equity is €10.5/share (previously €9.4).

FIGURE 12

Our SOTP Valuation for E.ON showing revised price target of €10.5/share

|                               | Method          | €m            | €/share     | EV/EBITDA FY17 | EV/EBITDA FY18 |
|-------------------------------|-----------------|---------------|-------------|----------------|----------------|
| Energy Networks               | RAB + Outperf.  | 27,548        | 12.8        | 9.5x           | 10.2x          |
| Customer Solutions            | DCF, TV         | 5,730         | 2.7         | 6.2x           | 6.2x           |
| Renewables                    | DCF, TV         | 9,499         | 4.4         | 11.5x          | 10.2x          |
| Preussen Elektra              | DCF             | 1,063         | 0.5         | 2.2x           | 2.5x           |
| Uniper                        | Fair Value      | 3,278         | 1.5         | nm             | nm             |
| Corporate Function            | Multiple        | (1,925)       | (0.9)       | 5.0x           | 5.0x           |
| <b>Enterprise Value</b>       | <b>-</b>        | <b>45,193</b> | <b>21.0</b> | <b>9.4x</b>    | <b>9.5x</b>    |
| Share Investments             | Book value YE17 | 1,378         | 0.6         | 1.0x           | -              |
| Treasury                      | SOTP Fair Value | 403           | 0.2         | -              | -              |
| Fin Net Debt, incl Fin Assets | Book value YE17 | (7,002)       | (3.3)       | 1.0x           | -              |
| Pension Provisions            | Book value YE17 | (4,120)       | (1.9)       | 1.0x           | -              |
| Nuclear provisions/AROs       | Book value YE17 | (11,129)      | (5.2)       | 1.0x           | -              |
| Other Provisions              | Book value YE17 | -             | -           | 0.0x           | -              |
| Minorities                    | At 7x PE        | (2,116)       | (1.0)       | -              | -              |
| <b>Equity Value</b>           | <b>-</b>        | <b>22,607</b> | <b>10.5</b> | <b>-</b>       | <b>-</b>       |
| Share Count (mn)              |                 | 2,152         |             |                |                |
| <b>Price Target (€/share)</b> |                 | <b>10.5</b>   |             |                |                |

Source: Barclays Research estimates

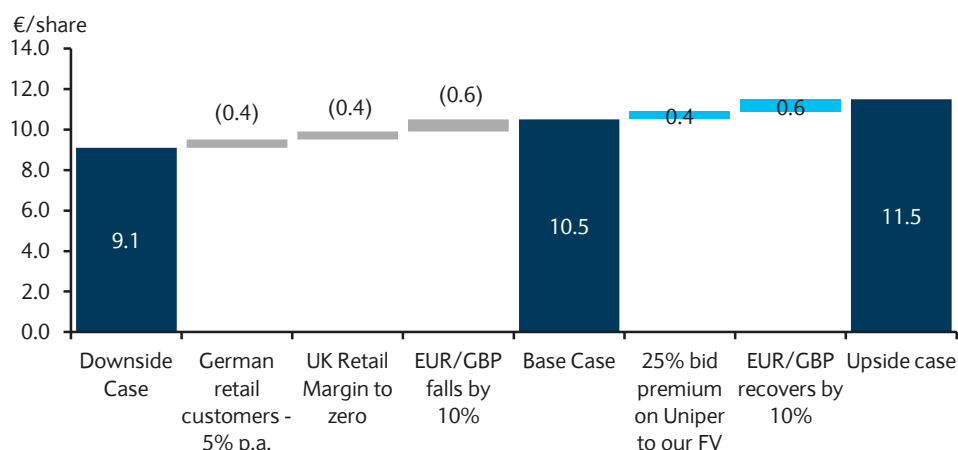
We make three main changes to our SOTP valuation:

- 1. Increase in the value of the Renewables business (+€0.4/share).** On our updated EBITDA forecasts, E.ON's renewable business is set to grow slightly more quickly than we were previously assuming, with the Rampion and Arkona offshore-wind projects coming onstream in 2018 and 2019 respectively. With a projected CAGR in EBITDA of 8% over the three years 2017-20, we now value the Renewables division at 11.5x 2017E EBITDA versus 10.9x previously.
- 2. Reduction in corporate overhead costs and provisions: (+€0.4/share).** E.ON is now guiding to lower corporate-overhead costs going forward, and we also take out all non-interest bearing provisions from our valuation and deduct now only the rating agencies' definition of economic net debt from our enterprise valuation.
- 3. Increase the positive impact of the NFT refund to account for the use of tax-loss carry-forwards €530m (+€0.2/share).** We previously assumed that E.ON would be taxed at 30% on the NFT refund (including accrued interest of €450m), but the guidance now is for the interest and tax to offset each other such that we now assume a total positive impact of €2.8bn versus €2.31bn previously.

Figure 13 then sets out our revised upside and downside cases for E.ON's SOTP valuation.

**Upside case (€11.5/share):** Our upside scenario of €11.5/share assumes (i) that a third party makes a bid for E.ON's stake in Uniper at a 25% premium to our fair value for Uniper, and (ii) that the GBP strengthens against the EUR by 10% from 2018 onwards versus our base case (to €1.22 versus €1.11 in our base case).

FIGURE 13  
E.ON's upside/downside scenario



Source: Barclays Research estimates

**Downside case (€9.1/share):** Our downside scenario of €9.1/share assumes (i) that E.ON loses 5% of German retail customers per annum over the next few years driven by the very competitive nature of the business in Germany and that the value of the UK retail business falls to zero, and (ii) that the GBP weakens against the EUR by 10% from 2018 onwards versus our base case (to €1 versus €1.11 in our base case).

## Flat EBIT to 2019, but improved dividend prospects

Figure 14 shows our revised EBIT numbers for E.ON versus our previous estimates. Our 2017 number is 3.5% lower than our previous forecast reflecting mainly E.ON's revised guidance on the so-called Netz-und-Modernisierungsgesetz, or NEMOG law (this will not now result in an uplift to the 2017 EBIT in the Energy Networks division). For the trend over 2017-20, we see a flat EBIT overall.

FIGURE 14  
Changes to our Group EBIT forecasts for E.ON

| EBIT (€m)           | 2017E        | 2018E        | 2019E        | 2020E        |
|---------------------|--------------|--------------|--------------|--------------|
| Previous            | 3,009        | 3,008        | 3,000        | 2,885        |
| <b>New</b>          | <b>2,924</b> | <b>2,839</b> | <b>2,933</b> | <b>2,938</b> |
| Energy Networks     | 1,873        | 1,668        | 1,753        | 1,743        |
| Customer Solutions  | 566          | 570          | 528          | 532          |
| Renewables          | 429          | 511          | 590          | 614          |
| Preussen Elektra    | 441          | 300          | 262          | 249          |
| Consolidation/other | (385)        | (210)        | (200)        | (200)        |
| <b>Change</b>       | <b>-3.5%</b> | <b>-6.6%</b> | <b>-3.2%</b> | <b>1.8%</b>  |

Source: Barclays Research estimates

In Energy Networks, we expect a sharp drop in Germany in 2018 (-€250m) with the Hamburg concession dropping out and negative developments on pension costs. This is partially offset by continuing strong growth in the Swedish network business in 2018, and from 2019 onwards Germany reverts to modest growth (although on our revised numbers it is still some €200m lower in 2020 than in 2017). Overall, and despite the partial offset provided by growth in the Swedish and Turkish networks, the Energy Network business sees a drop in EBIT over our forecast period to €1.743m by 2020 versus €1,873m in 2017.

In Customer Solutions we have the same trend over our forecast period, with continuing strong competitive pressure in the UK and German markets being the main drivers here. By contrast, we expect robust growth in the Renewables division over our forecast period, with two major offshore wind parks to start up, one in 2018 (Rampion, a 400MW project off the UK's south coast), and one in 2019 (Arkona, a 385MW project in the German Baltic in which E.ON has a 50% stake). We expect corporate-overhead costs to fall from €385m in 2017 to €200m by 2020.

Figure 15 then sets out our revised estimates for E.ON's Adjusted Net Income, EPS, and DPS over 2017-20. Our updated projections for Adjusted Net Income are now on average slightly lower than our previous estimates (mainly reflecting our lower EBIT forecasts). However, our projected dividend forecasts are now significantly higher than before (25% on average over 2018-20), reflecting the new guidance for a payout ratio of "at least 65%" from 2018 (a function of the improved balance sheet following the NFT refund).

FIGURE 15

## Changes to our Net Income, EPS and DPS forecasts for E.ON

| Adjusted Net Income, €m | 2017E | 2018E | 2019E | 2020E |
|-------------------------|-------|-------|-------|-------|
| Previous                | 1,435 | 1,438 | 1,440 | 1,385 |
| New                     | 1,316 | 1,347 | 1,415 | 1,421 |
| Change                  | -8.3% | -6.3% | -1.7% | 2.6%  |
| EPS, €/share            | 2017E | 2018E | 2019E | 2020E |
| Previous                | 0.67  | 0.67  | 0.67  | 0.64  |
| New                     | 0.61  | 0.63  | 0.66  | 0.66  |
| Change                  | -8.3% | -6.3% | -1.7% | 2.6%  |
| DPS, €/share            | 2017E | 2018E | 2019E | 2020E |
| Previous                | 0.30  | 0.37  | 0.37  | 0.35  |
| New                     | 0.30  | 0.41  | 0.46  | 0.50  |
| Change                  | 0.0%  | 10.8% | 24%   | 42.8% |
| Payout ratio            | 49%   | 65%   | 70%   | 75%   |

Source: Barclays Research estimates

Finally, as shown in Figure 16, on our revised numbers E.ON's ND/EBITDA ratio falls to 4.3x by the end of 2019E compared with 4.5x previously, despite significantly higher dividends over 2018-20. Moreover, we would emphasise that our ND/EBITDA projection to 2020 does not take into account the further planned deleveraging measures that E.ON has committed to (most notably the disposal of its residual stake in Uniper from Q1 2018). In total, these measures – the disposal of the Uniper stake, the reclassification of Nordstream-1, and efficiencies on its remaining nuclear liabilities – could reduce leverage by ~€4-5.5bn by 2020, equating to a further 0.8-1x off the Group's ND/EBITDA ratio by 2020 on a constant-perimeter basis.

FIGURE 16

## Changes to our ND/EBITDA ratio forecasts for E.ON

| ND/EBITDA | 2017E | 2018E | 2019E | 2020E |
|-----------|-------|-------|-------|-------|
| Previous  | 4.9x  | 4.9x  | 4.7x  | 4.5x  |
| New       | 4.6x  | 4.8x  | 4.5x  | 4.3x  |

Source: Barclays Research estimates

Accordingly, we think E.ON is likely to meet its targeted ND/EBITDA ratio of 4x well before 2020, offering scope for further room on the dividend and/or higher growth capex.

## Financials

FIGURE 17

### E.ON Group EBITDA and EBIT

| €m                       | 2015         | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Energy Networks          | 2,733        | 2,679        | 2,885        | 2,700        | 2,755        | 2,765        |
| Customer Solutions       | 1,112        | 1,110        | 872          | 885          | 851          | 858          |
| Renewables               | 750          | 796          | 827          | 929          | 1,024        | 1,041        |
| Corporate Function/Other | 86           | (334)        | (321)        | (146)        | (136)        | (136)        |
| Preussen Elektra         | 760          | 644          | 523          | 374          | 328          | 309          |
| <b>EBITDA</b>            | <b>5,844</b> | <b>4,939</b> | <b>4,786</b> | <b>4,742</b> | <b>4,821</b> | <b>4,837</b> |
| €m                       | 2015         | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
| Energy Networks          | 1,811        | 1,671        | 1,873        | 1,668        | 1,753        | 1,743        |
| Customer Solutions       | 806          | 812          | 566          | 570          | 528          | 532          |
| Renewables               | 391          | 430          | 429          | 511          | 590          | 614          |
| Corporate Function/Other | (411)        | (398)        | (385)        | (210)        | (200)        | (200)        |
| Preussen Elektra         | 563          | 553          | 441          | 300          | 262          | 249          |
| <b>EBIT</b>              | <b>3,563</b> | <b>3,112</b> | <b>2,924</b> | <b>2,839</b> | <b>2,933</b> | <b>2,938</b> |

Source: Company reports, Barclays Research estimates

FIGURE 18

### E.ON Financial Statements (adj)

| €m                          |    | 2015         | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|-----------------------------|----|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Adjusted EBITDA</b>      | €m | <b>5,844</b> | <b>4,939</b> | <b>4,786</b> | <b>4,742</b> | <b>4,821</b> | <b>4,837</b> |
| Depreciation & Amortisation | €m | (2,281)      | (1,827)      | (1,862)      | (1,903)      | (1,889)      | (1,899)      |
| <b>Adjusted EBIT</b>        | €m | <b>3,563</b> | <b>3,112</b> | <b>2,924</b> | <b>2,839</b> | <b>2,933</b> | <b>2,938</b> |
| Adj Net Interest            | €m | (1,485)      | (1,452)      | (766)        | (721)        | (687)        | (677)        |
| <b>Profit before tax</b>    | €m | <b>2,078</b> | <b>1,660</b> | <b>2,158</b> | <b>2,118</b> | <b>2,246</b> | <b>2,261</b> |
| Income tax                  | €m | (710)        | (478)        | (540)        | (532)        | (569)        | (573)        |
| Minority Interests          | €m | (292.0)      | (278.0)      | (302)        | (238)        | (262)        | (267)        |
| <b>Adjusted net Income</b>  | €m | <b>1,076</b> | <b>904</b>   | <b>1,316</b> | <b>1,347</b> | <b>1,415</b> | <b>1,421</b> |
| <b>EPS Adj</b>              | €  | <b>0.55</b>  | <b>0.46</b>  | <b>0.61</b>  | <b>0.63</b>  | <b>0.66</b>  | <b>0.66</b>  |
| Number of shares            | m  | 1,952        | 1,952        | 2,152        | 2,152        | 2,152        | 2,152        |
| DPS                         | €  | 0.50         | 0.21         | 0.30         | 0.41         | 0.46         | 0.50         |
| Payout Ratio                | %  | 91%          | 45%          | 49%          | 65%          | 70%          | 75%          |

Source: Company reports, Barclays Research estimates.

FIGURE 19

### E.ON Leverage

| €m                 | 2015     | 2016     | 2017E    | 2018E    | 2019E    | 2020E    |
|--------------------|----------|----------|----------|----------|----------|----------|
| Economic Net Debt  | (21,340) | (26,320) | (22,252) | (22,536) | (21,902) | (20,810) |
| Net debt / EBITDA  | 3.7x     | 5.3x     | 4.6x     | 4.8x     | 4.5x     | 4.3x     |
| Financial Net Debt | (346)    | (1,327)  | (7,392)  | (7,616)  | (7,312)  | (6,548)  |
| Fin ND/EBITDA      | 0.1x     | 0.3x     | 1.5x     | 1.6x     | 1.5x     | 1.4x     |

Source: Company reports, Barclays Research estimates.

FIGURE 20

**E.ON – Cash Flow Statement**

| €m                                          | 2016            | 2017E          | 2018E          | 2019E          | 2020E          |
|---------------------------------------------|-----------------|----------------|----------------|----------------|----------------|
| <b>Income</b>                               | <b>(16,007)</b> | <b>1,599</b>   | <b>1,567</b>   | <b>1,659</b>   | <b>1,669</b>   |
| - Disc Operations/Change in Accounting      | -               | 13,842         | -              | -              | -              |
| + Income Tax                                | 440             | 540            | 532            | 569            | 573            |
| + Net Finance Costs                         | 1,314           | 785            | 740            | 706            | 696            |
| - Share of Associates                       | (285)           | (210)          | (198)          | (196)          | (195)          |
| + D&A, incl. Impairment Losses              | 3,823           | 1,862          | 1,903          | 1,889          | 1,899          |
| <b>EBITDA (unadjusted)</b>                  | <b>3,127</b>    | <b>4,576</b>   | <b>4,544</b>   | <b>4,626</b>   | <b>4,642</b>   |
| Net interest paid                           | (537)           | (599)          | (551)          | (516)          | (505)          |
| Tax payments                                | (476)           | (540)          | (532)          | (569)          | (573)          |
| Dividends received                          | 263             | 196            | 185            | 183            | 182            |
| Uniper dividend                             | -               | 93             | 93             | 116            | 159            |
| +/- Changes in Provisions                   | 3,142           | (10,133)       | (330)          | (329)          | (328)          |
| +/- Changes in Def Taxes                    | (66)            | -              | -              | -              | -              |
| +/- Gains/Losses of disposal of assets      | (203)           | -              | -              | -              | -              |
| +/- Changes in Working Capital              | (1,294)         | 266            | 19             | (10)           | 277            |
| +/- Changes in Other Operating Receivables  | (778)           | 26             | 26             | 26             | 26             |
| +/- Other Non-Cash Income/Expenses          | (217)           | -              | -              | -              | -              |
| <b>Cash Flow from Operating Activities</b>  | <b>2,961</b>    | <b>(6,115)</b> | <b>3,454</b>   | <b>3,527</b>   | <b>3,880</b>   |
| - Capital Expenditure                       | (3,169)         | (3,648)        | (2,965)        | (2,270)        | (2,046)        |
| +/- (Acquisitions)/Disposals                | 836             | -              | -              | -              | -              |
| +/- Changes in Interest Bearing Receivables | (802)           | -              | -              | -              | -              |
| +/- Changes in Restricted Cash              | 94              | -              | -              | -              | -              |
| <b>Net Cash from Investing Activities</b>   | <b>(3,041)</b>  | <b>(3,648)</b> | <b>(2,965)</b> | <b>(2,270)</b> | <b>(2,046)</b> |
| +/- Change in Equity/other*                 | 429             | 4,200          | -              | -              | -              |
| - Dividends Paid to Shareholders/Minorities | (1,089)         | (523)          | (735)          | (974)          | (1,091)        |
| +/- Change in Financial Liabilities         | (492)           | 3,113          | 246            | (282)          | (743)          |
| <b>Net Cash from Financing Activities</b>   | <b>(1,152)</b>  | <b>6,789</b>   | <b>(489)</b>   | <b>(1,256)</b> | <b>(1,833)</b> |
| <b>Net (Decrease)/Increase in Cash</b>      | <b>(1,232)</b>  | <b>(2,974)</b> | <b>-</b>       | <b>-</b>       | <b>-</b>       |

Source: Company reports, Barclays Research estimates.

FIGURE 21

**E.ON – Balance Sheet**

| €m                                     | 2015            | 2016            | 2017E           | 2018E           | 2019E           | 2020E           |
|----------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Property, Plant and Equipment          | 38,997          | 25,242          | 27,028          | 28,089          | 28,471          | 28,619          |
| Goodwill                               | 6,441           | 3,463           | 3,463           | 3,463           | 3,463           | 3,463           |
| Intangible Assets                      | 4,465           | 2,329           | 2,329           | 2,329           | 2,329           | 2,329           |
| Associates                             | 4,536           | 6,352           | 6,273           | 6,193           | 6,090           | 5,944           |
| Other Financial Assets                 | 1,202           | 821             | 825             | 829             | 833             | 838             |
| Non current securities                 | 4,724           | 4,327           | 4,349           | 4,370           | 4,392           | 4,414           |
| Financial Receivables & Other          | 3,571           | 553             | 553             | 553             | 553             | 553             |
| Operating receivables & Other          | 5,534           | 1,761           | 1,761           | 1,761           | 1,761           | 1,761           |
| Deferred Tax Assets& inc. Tax assets   | 4,142           | 4,142           | 1,448           | 1,448           | 1,448           | 1,448           |
| <b>Total Non-Current Assets</b>        | <b>73,612</b>   | <b>46,296</b>   | <b>48,028</b>   | <b>49,036</b>   | <b>49,341</b>   | <b>49,368</b>   |
| Inventories                            | 2,546           | 785             | 780             | 777             | 777             | 777             |
| Trade Receivables                      | 25,331          | 6,719           | 6,565           | 6,523           | 6,533           | 6,431           |
| Income tax assets                      | 1,330           | 851             | 825             | 799             | 773             | 747             |
| Financial Receivables                  | 1,854           | 463             | 463             | 463             | 463             | 463             |
| Assets held for sale                   | 1,191           | 12              | 12              | 12              | 12              | 12              |
| Liquid funds (excl Cash)               | 2,640           | 2,999           | 2,999           | 2,999           | 2,999           | 2,999           |
| Cash and Cash Equivalents              | 5,189           | 5,574           | 2,600           | 2,600           | 2,600           | 2,600           |
| <b>Total Current Assets</b>            | <b>40,081</b>   | <b>17,403</b>   | <b>14,244</b>   | <b>14,174</b>   | <b>14,158</b>   | <b>14,030</b>   |
| <b>Total Assets</b>                    | <b>113,693</b>  | <b>63,699</b>   | <b>62,272</b>   | <b>63,210</b>   | <b>63,498</b>   | <b>63,398</b>   |
| Accumulated Other Comprehensive Income | 16,429          | (1,055)         | 4,057           | 4,766           | 5,312           | 5,750           |
| Minority Interests                     | 2,648           | 2,342           | 2,531           | 2,680           | 2,844           | 3,011           |
| <b>Equity</b>                          | <b>19,077</b>   | <b>1,287</b>    | <b>6,588</b>    | <b>7,446</b>    | <b>8,156</b>    | <b>8,760</b>    |
| Financial Liabilities                  | (14,954)        | (10,435)        | (13,548)        | (13,794)        | (13,511)        | (12,769)        |
| Provisions                             | (30,655)        | (19,618)        | (9,485)         | (9,154)         | (8,825)         | (8,497)         |
| Deferred Tax Liabilities               | (7,217)         | (2,554)         | (2,554)         | (2,554)         | (2,554)         | (2,554)         |
| Operating Liabilities                  | (8,346)         | (6,680)         | (6,680)         | (6,680)         | (6,680)         | (6,680)         |
| <b>Total Non-Current Liabilities</b>   | <b>(61,172)</b> | <b>(39,287)</b> | <b>(32,266)</b> | <b>(32,182)</b> | <b>(31,571)</b> | <b>(30,500)</b> |
| Financial Liabilities                  | (2,788)         | (3,792)         | (3,792)         | (3,792)         | (3,792)         | (3,792)         |
| Trade Payables                         | (24,811)        | (6,888)         | (6,995)         | (6,970)         | (6,970)         | (7,145)         |
| Other Operating Liabilities            | (814)           | (434)           | (620)           | (809)           | (999)           | (1,190)         |
| Provisions                             | (4,280)         | (12,008)        | (12,008)        | (12,008)        | (12,008)        | (12,008)        |
| Other Current Liabilities              | (751)           | (3)             | (3)             | (3)             | (3)             | (3)             |
| <b>Total Current Liabilities</b>       | <b>(33,444)</b> | <b>(23,125)</b> | <b>(23,418)</b> | <b>(23,582)</b> | <b>(23,772)</b> | <b>(24,138)</b> |
| <b>Total Equity and Liabilities</b>    | <b>113,693</b>  | <b>63,699</b>   | <b>62,272</b>   | <b>63,210</b>   | <b>63,498</b>   | <b>63,398</b>   |

Source: Company data, Barclays Research estimates.

| European Utilities                       |              |              |              |              |                | Industry View: NEUTRAL                                                                                                                                                                                                                                                                                                                         |                  |
|------------------------------------------|--------------|--------------|--------------|--------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Uniper SE (UN01.DE)                      |              |              |              |              |                | Stock Rating: EQUAL WEIGHT                                                                                                                                                                                                                                                                                                                     |                  |
| <b>Income statement (€mn)</b>            | <b>2016A</b> | <b>2017E</b> | <b>2018E</b> | <b>2019E</b> | <b>CAGR</b>    | <b>Price (24-Aug-2017)</b>                                                                                                                                                                                                                                                                                                                     | <b>EUR 20.88</b> |
| Revenue                                  | 67,285       | 66,488       | 66,158       | 66,387       | -0.4%          | <b>Price Target</b>                                                                                                                                                                                                                                                                                                                            | <b>EUR 19.20</b> |
| EBITDA (adj)                             | 2,122        | 1,818        | 1,606        | 1,746        | -6.3%          | <b>Why Equal Weight?</b> We think Uniper's assets can all too easily be dismissed as the energy business of the past, whereas in fact, if managed correctly, we think that Uniper offers attractive cash returns (we now have a CAGR in the DPS of 32% over 2017-20) with an option on tighter German and EU climate policy going forward.     |                  |
| EBIT (adj)                               | 1,362        | 1,142        | 965          | 1,101        | -6.8%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| Pre-tax income (adj)                     | 1,077        | 1,127        | 876          | 1,000        | -2.4%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net income (adj)                         | 900          | 801          | 659          | 737          | -6.4%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| EPS (adj) (€)                            | 2.46         | 2.19         | 1.80         | 2.01         | -6.4%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| Diluted shares (mn)                      | 366.0        | 366.0        | 366.0        | 366.0        | 0.0%           |                                                                                                                                                                                                                                                                                                                                                |                  |
| DPS (€)                                  | 0.55         | 0.68         | 0.82         | 1.12         | 27.0%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| <b>Margin and return data</b>            |              |              |              |              | <b>Average</b> | <b>Upside case</b>                                                                                                                                                                                                                                                                                                                             | <b>EUR 21.80</b> |
| EBITDA (adj) margin (%)                  | 3.2          | 2.7          | 2.4          | 2.6          | 2.7            | Assumes (i) that the long-term coal price is higher by \$5/t from 2020 onwards than the \$61/t we now have in our base case, (ii) that Datteln-4 starts in Q1 2018 compared with Q3 218 in our base case, and (iii) that the long-term EU carbon price is higher by €5/t from 2020 onwards.                                                    |                  |
| EBIT (adj) margin (%)                    | 2.0          | 1.7          | 1.5          | 1.7          | 1.7            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Pre-tax (adj) margin (%)                 | 1.6          | 1.7          | 1.3          | 1.5          | 1.5            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net (adj) margin (%)                     | 1.3          | 1.2          | 1.0          | 1.1          | 1.2            |                                                                                                                                                                                                                                                                                                                                                |                  |
| ROIC (%)                                 | 2.7          | 2.8          | 2.5          | 2.8          | 2.7            |                                                                                                                                                                                                                                                                                                                                                |                  |
| ROA (%)                                  | 1.7          | 1.7          | 1.5          | 1.7          | 1.7            |                                                                                                                                                                                                                                                                                                                                                |                  |
| ROE (%)                                  | 6.5          | 6.1          | 4.8          | 5.2          | 5.7            | <b>Downside case</b>                                                                                                                                                                                                                                                                                                                           | <b>EUR 16.80</b> |
| <b>Cash flow and balance sheet (€mn)</b> |              |              |              |              | <b>CAGR</b>    | Assumes (i) that the long-term coal price is lower by \$5/t from 2020 onwards than the \$61/t we now have in our base case, (ii) that Maasvlakte-3 closes early in 2020 with no compensation paid to Uniper, and (iii) that RWE cancels its long-term contract with the Datteln-4 plant.                                                       |                  |
| Cash flow from operations                | 2,184        | 1,372        | 974          | 1,270        | -16.5%         |                                                                                                                                                                                                                                                                                                                                                |                  |
| Capital expenditure                      | -781         | -850         | -702         | -500         | N/A            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Free cash flow                           | 1,403        | 523          | 272          | 770          | -18.1%         |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net PP&E                                 | 11,700       | 10,065       | 10,126       | 9,981        | -5.2%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| Total net assets                         | 12,803       | 13,423       | 13,881       | 14,375       | 3.9%           |                                                                                                                                                                                                                                                                                                                                                |                  |
| Capital employed                         | 29,994       | 28,197       | 28,370       | 28,428       | -1.8%          |                                                                                                                                                                                                                                                                                                                                                |                  |
| Shareholders' equity                     | 12,221       | 13,013       | 13,534       | 14,122       | 4.9%           |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net debt/(funds)                         | 4,167        | 2,161        | 2,228        | 1,865        | -23.5%         |                                                                                                                                                                                                                                                                                                                                                |                  |
| <b>Valuation and leverage metrics</b>    |              |              |              |              | <b>Average</b> | <div> <div>Price History</div> <div>Prior 12 months</div> <div>High</div> <div>20.99</div> <div>Current</div> <div>20.88</div> <div>9.80</div> <div>Low</div> </div> <div> <div>Price Target</div> <div>Next 12 months</div> <div>Upside</div> <div>21.80</div> <div>Target</div> <div>19.20</div> <div>16.80</div> <div>Downside</div> </div> |                  |
| P/E (adj) (x)                            | 8.5          | 9.5          | 11.6         | 10.4         | 10.0           |                                                                                                                                                                                                                                                                                                                                                |                  |
| EV/EBITDA (adj) (x)                      | N/A          | 7.3          | 7.9          | 7.2          | 7.5            |                                                                                                                                                                                                                                                                                                                                                |                  |
| EV/EBIT (adj) (x)                        | N/A          | 11.7         | 13.2         | 11.4         | 12.1           |                                                                                                                                                                                                                                                                                                                                                |                  |
| Equity FCF yield (%)                     | 19.9         | 7.4          | 3.9          | 10.9         | 10.5           |                                                                                                                                                                                                                                                                                                                                                |                  |
| P/BV (x)                                 | 0.6          | 0.6          | 0.6          | 0.5          | 0.6            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Dividend yield (%)                       | 2.6          | 3.3          | 3.9          | 5.4          | 3.8            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net debt/capital (%)                     | 13.9         | 7.7          | 7.9          | 6.6          | 9.0            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Net debt/EBITDA (adj) (x)                | 2.0          | 1.2          | 1.4          | 1.1          | 1.4            |                                                                                                                                                                                                                                                                                                                                                |                  |
| <b>Selected operating metrics (€)</b>    |              |              |              |              | <b>Average</b> |                                                                                                                                                                                                                                                                                                                                                |                  |
| Total installed capacity (MW)            | 39,619       | 37,929       | 37,196       | 38,183       | 38,232         |                                                                                                                                                                                                                                                                                                                                                |                  |
| Total power output (GWh)                 | 142,486      | 146,155      | 140,366      | 144,632      | 143,410        |                                                                                                                                                                                                                                                                                                                                                |                  |
| Baseload power price Germany (€/MWh)     | 28.1         | 27.6         | 30.0         | 29.0         | 28.7           |                                                                                                                                                                                                                                                                                                                                                |                  |
| Baseload power price UK (£/MWh)          | 40.4         | 46.9         | 43.0         | 46.4         | 44.2           |                                                                                                                                                                                                                                                                                                                                                |                  |
| Achieved CDS - Germany (€/MWh)           | 11.8         | 7.4          | 10.5         | 9.3          | 9.8            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Achieved CSS - Germany (€/MWh)           | 3.7          | -1.4         | 1.0          | -0.3         | 0.8            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Achieved CDS - UK (£/MWh)                | 7.8          | 1.7          | 3.5          | 5.0          | 4.5            |                                                                                                                                                                                                                                                                                                                                                |                  |
| Achieved CSS - UK (£/MWh)                | 12.3         | 4.5          | 6.6          | 7.6          | 7.8            |                                                                                                                                                                                                                                                                                                                                                |                  |

Source: Company data, Barclays Research  
Note: FY End Dec

## UNIPER (EW, PT RAISED TO €19.2 FROM €17): BID PREMIUM BUILDING?

### Investment thesis

We are raising our PT for Uniper to €19.2 from €17, and with the shares trading at €20.5 we remain EW. We increase our SOTP after raising our long-term price assumption for coal from 2020 by \$5/t (which raises our long-term power-price forecast and hence makes Uniper's fixed-cost hydro capacity more valuable, as well as its gas-fired capacity), and lowering our year-end forecast for economic net debt. With the expected completion of the Yuzhno-Russkoye disposal in H2, Uniper will effectively have achieved the €2bn of disposal proceeds by year-end 2017 that management announced as its target at the time of its listing in Q3 2016. As explained in our reports *Cashablanca (with an option on Paris)*, 20 Sept 2016, and *German Utilities: Carbon carnival ahead of 2016 results*, 7 Mar 2017, we think Uniper's asset mix gives it upside optionality on any tightening of German and EU climate policy going forward, and in our view this also helps to explain the recent market speculation regarding Uniper as a potential takeover target as and when E.ON is free to sell down its 46.7% stake from January 2018 (see earlier section in this report, *To bid or not to bid*). On our updated EPS and DPS forecasts (both of which we upgrade today), Uniper trades on forward P/E multiples of 11.4x and 10.2x for 2017E and 2018E respectively, and yields 4% and 5.5% for 2018 and 2019 respectively. We do not think the shares are expensive, and the yield for 2020 on our updated numbers is a very attractive 8.7%, but at this stage we think Uniper is fairly valued. Key to delivering on market expectations from here will be a smooth operational performance (in particular the start-up of Datteln-4 by Q2-2018), and capex discipline, thereby enabling management to deliver on market expectations for dividend growth over 2018-20 (on our own revised estimates we now have a CAGR in the DPS of 32% over 2017-20).

**Falling merchant exposure and optionality on tougher German and EU climate policy:** We expect Uniper's exposure to merchant-pricing-based activities to decline from ~60% in 2016 to ~40% by the end of the decade, driven by the start-up of the long-term contracted Datteln-4 in Germany and increasing dependence on capacity payments in the UK and Russia. Potential future growth projects could reduce commodity-price exposure even further, although we have not taken growth projects into account in our base-case modelling (other than the financing for Nordstream-2 already announced).

**Optionality on tougher climate policy in Germany and the EU:** As explained in our report *German Utilities: Scoping the 'Tragedy of the Horizon'*, 1 Sept 2016, we think Germany will have to introduce measures to reduce emissions significantly faster than currently foreseen if it is to reach its domestic goal of reducing emissions by 55% by 2030 versus 1990 levels. Moreover, and as explained in our report *Carbon carnival*, we also think there is now a real possibility that the ongoing initiative to reform the EU-ETS will result in a significant tightening of supply in the EU carbon market from 2019 onwards, an outcome that would likely put significant upward pressure on EU carbon prices beyond 2020. And over the medium to longer term, there is also the possibility that the EU will revisit its climate targets within the timeframe foreseen by the Paris Agreement (in 2023) and increase the level of ambition in its 2030 emissions-reduction targets. In short, we think Uniper's portfolio of generation assets in Germany and across the EU is well positioned to take advantage of any and all such policy tightening, as its gas and new high-efficiency coal-fired generation assets would in our view become more valuable under such a scenario.

**Uniper: Risks to thesis and valuation:** The main downside risks to our thesis and valuation are lower German and UK power prices than we are assuming, and a later start-up of Datteln-4 and re-start of Berezovskaya-3 than we assume. The main upside risks are higher German and UK power prices than we are assuming.

## Valuation: raising PT to €19.2 (€17 previously)

Figure 22 shows our updated SOTP for Uniper. Our fair value for the Group's equity is now €7.036bn which equates to €19.2/share.

FIGURE 22

### Fair Value SOTP Valuation for Uniper

|                               | Method              | €m            | €/share     | EV/EBITDA FY17 |
|-------------------------------|---------------------|---------------|-------------|----------------|
| European Generation           | DCF                 | 5,561         | 15.2        | 7.3x           |
| Hydro                         | DCF                 | 3,445         | 9.4         | 10.6x          |
| Nuclear                       | DCF                 | 233           | 0.6         | 6.7x           |
| Coal/Lignite                  | DCF                 | 1,002         | 2.7         | 34.6x          |
| Gas                           | DCF                 | 882           | 2.4         | nm             |
| Global Commodities            | Multiples           | 3,843         | 10.5        | 6.8x           |
| International Power           | Market Value Unipro | 2,132         | 5.8         | 2.8x           |
| Consolidation                 | Multiples           | (446)         | (1.2)       | 4.5x           |
| <b>Enterprise Value</b>       | <b>-</b>            | <b>11,091</b> | <b>30.3</b> | <b>6.1x</b>    |
| Share Investments             | Book value YE17     | 740           | 2.0         | 1x             |
| Treasury                      | At SOTP Fair Value  | -             | -           | -              |
| Fin Net Debt, incl Fin Assets | Book value YE17     | (271)         | (0.7)       | 1x             |
| Pension Provisions            | Book value YE17     | (806)         | (2.2)       | 1x             |
| Asset Retirement Obligations  | Book value YE17     | (1,083)       | (3.0)       | 1x             |
| Other Provisions              | Book value YE17     | (2,411)       | (6.6)       | -              |
| Minorities                    | At 10x PE           | (250)         | (0.7)       | 10x            |
| <b>Equity Value</b>           | <b>-</b>            | <b>7,036</b>  |             | <b>-</b>       |
| Share count (m)               |                     | 366.0         |             |                |
| <b>Price Target</b>           |                     | <b>19.2</b>   |             |                |

Source: Barclays Research estimates

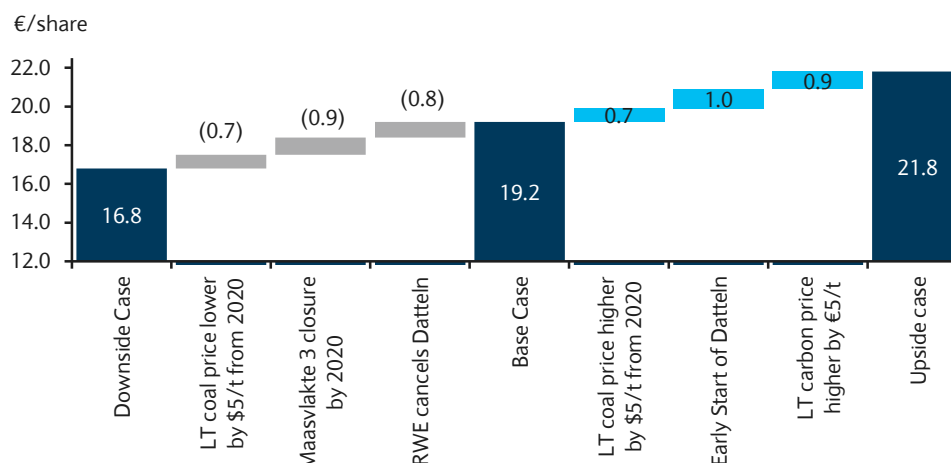
We make three main changes to our valuation.

- Raising our long-term coal-price forecast from 2020 to \$61/t (+€0.7/share):** Coal prices have risen over the summer in keeping with increased demand from key Asian importers in response to weather conditions (lower hydro output in China) and new coal-fired capacity coming on-stream (South Korea). Our revised long-term price of \$61/t (\$56/t previously) is still some way below the 2020 forward curve for ARA coal (\$70/t), but we would expect prices to fall back over the next 12 months, and then to stabilise.
- Lower overall economic net debt (+€0.9/share):** We update our numbers after the H1 results and our FY2017 economic net-debt number is now €300m lower than previously.
- Other adjustments (+€0.6/share):** We make numerous other minor adjustments – lower holding-company costs, higher other provisions, and lower minority interests – that combined result in a net increase in our fair value of €0.6/share.

Figure 23 then shows our upside and downside cases against our revised fair value.

FIGURE 23

## Upside and downside valuations for Uniper versus our base case



Source: Barclays Research estimates

**Upside case (€21.8/share):** Our upside scenario assumes (i) that the long-term coal price is higher by \$5/t from 2020 onwards than the \$61/t we now have in our base case, (ii) that Datteln-4 starts in Q1 2018 compared with Q3 2018 in our base case, and (iii) that the long-term EU carbon price is higher by €5/t from 2020 onwards than the €6/t we currently have in our model.

**Downside case (€16.8/share):** Our downside scenario assumes (i) that the long-term coal price is lower by \$5/t from 2020 onwards than the \$61/t we now have in our base case, (ii) that Maasvlakte-3 closes early in 2020 with no compensation paid to Uniper, and (iii) that RWE cancels its long-term contract with Uniper's 1.1GW Datteln-4 coal plant with no compensation paid (we understand that RWE holds a 400MW contract).

## EBITDA, dividends, and deleveraging: staying focused

Figure 24 shows our revised EBITDA numbers for Uniper versus our previous estimates. Our 2017 number is unchanged, but our 2018 forecast is slightly lower, and over 2018-20 overall our forecasts are now lower by an average of 9%.

FIGURE 24

## Changes to our EBITDA forecasts for Uniper

| EBITDA, €m | 2017E | 2018E | 2019E | 2020E  |
|------------|-------|-------|-------|--------|
| Previous   | 1,818 | 1,645 | 1,930 | 2,311  |
| New        | 1,818 | 1,606 | 1,746 | 1,933  |
| Change     | 0.0%  | -2.4% | -9.5% | -16.4% |

Source: Barclays Research estimates

The main reason for the downgrades in 2019 and 2020 is a slower recovery in the Global Commodities business than we had previously been expecting, although our numbers for European Generation and International Power are also slightly lower across the board as well, albeit with a stronger improvement in the European Generation business from 2020 versus 2019 than we were previously assuming.

The Uniper story is all about cash returns to shareholders, as this has been the bedrock of the equity story management has been committed to since the listing in September last year. With this in mind, we are now raising our dividend forecasts over 2017-20 by an average of 40% (Figure 25) to take account of two main factors.

First, management again underlined its commitment to rewarding shareholders with a strong uplift in the guidance for the 2017 dividend on publication of the H1 results. Uniper is now intending to grow the 2017 dividend by 25% versus 2016, compared with 15% previously. Second, we now expect Uniper to end the year with a lower ND/EBITDA ratio than we did before the H1 results, at 1.2x compared with 1.5x previously (again, Figure 26).

FIGURE 25

**Changes to our dividend and ND/EBITDA ratio forecasts for Uniper**

| DPS, €/share  | 2017E       | 2018E        | 2019E       | 2020E       |
|---------------|-------------|--------------|-------------|-------------|
| Previous      | 0.63        | 0.70         | 0.80        | 0.85        |
| <b>New</b>    | <b>0.68</b> | <b>0.82</b>  | <b>1.12</b> | <b>1.79</b> |
| <b>Change</b> | <b>7.9%</b> | <b>17.1%</b> | <b>40%</b>  | <b>100%</b> |
| ND/EBITDA     | 2017E       | 2018E        | 2019E       | 2020E       |
| Previous      | 1.5x        | 1.4x         | 0.7x        | 0.0x        |
| <b>New</b>    | <b>1.2x</b> | <b>1.4x</b>  | <b>1.1x</b> | <b>0.6x</b> |

Source: Barclays Research estimates

Given management's re-affirmed commitment to the dividend, we think this extra balance-sheet flexibility will allow a more generous payout profile going forward while comfortably enabling the group to remain an investment-grade credit (Standard & Poor's currently rates Uniper BBB- with a 'positive' outlook).

## Financials

FIGURE 26

### Uniper Group EBITDA

| €m                  | 2015A        | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| European Generation | 1,125        | 654          | 766          | 855          | 950          | 1,006        |
| Global Commodities  | 449          | 1,456        | 565          | 514          | 494          | 536          |
| International Power | 335          | 201          | 626          | 376          | 441          | 529          |
| Consolidation       | (192)        | (189)        | (139)        | (139)        | (139)        | (139)        |
| <b>Group EBITDA</b> | <b>1,717</b> | <b>2,122</b> | <b>1,818</b> | <b>1,606</b> | <b>1,746</b> | <b>1,933</b> |

Source: Company data, Barclays Research

FIGURE 27

### Uniper Group EBIT

| €m                  | 2015       | 2016         | 2017E        | 2018E      | 2019E        | 2020E        |
|---------------------|------------|--------------|--------------|------------|--------------|--------------|
| European Generation | 506        | 126          | 330          | 452        | 524          | 586          |
| Global Commodities  | 262        | 1,327        | 429          | 381        | 375          | 430          |
| International Power | 236        | 106          | 530          | 279        | 350          | 435          |
| Consolidation       | (203)      | (197)        | (147)        | (147)      | (147)        | (147)        |
| <b>Group EBIT</b>   | <b>801</b> | <b>1,362</b> | <b>1,142</b> | <b>965</b> | <b>1,101</b> | <b>1,305</b> |

Source: Company data, Barclays Research

FIGURE 28

### Uniper Financial Statements (adj)

| €m                          | 2015         | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Adjusted EBITDA</b>      | <b>1,717</b> | <b>2,122</b> | <b>1,818</b> | <b>1,606</b> | <b>1,746</b> | <b>1,933</b> |
| Depreciation & Amortisation | (916)        | (760)        | (676)        | (642)        | (645)        | (628)        |
| <b>Adjusted EBIT</b>        | <b>801</b>   | <b>1,362</b> | <b>1,142</b> | <b>965</b>   | <b>1,101</b> | <b>1,305</b> |
| Adj Net Interest            | 36           | (285)        | (15)         | (88)         | (96)         | (101)        |
| <b>Profit before tax</b>    | <b>837</b>   | <b>1,077</b> | <b>1,127</b> | <b>876</b>   | <b>1,005</b> | <b>1,203</b> |
| Income tax                  | (396)        | (160)        | (211)        | (176)        | (201)        | (241)        |
| Minority Interests          | 328          | (17)         | (115)        | (42)         | (63)         | (69)         |
| <b>Adjusted net Income</b>  | <b>769</b>   | <b>900</b>   | <b>801</b>   | <b>659</b>   | <b>741</b>   | <b>893</b>   |
| Adjusted EPS                | 2.10         | 2.46         | 2.19         | 1.80         | 2.03         | 2.44         |
| <b>DPS</b>                  | <b>-</b>     | <b>0.55</b>  | <b>0.68</b>  | <b>0.82</b>  | <b>1.12</b>  | <b>1.79</b>  |

Source: Company data, Barclays Research

FIGURE 29

### Uniper Leverage

| €m                 |    | 2015    | 2016    | 2017E   | 2018E   | 2019E   | 2020E   |
|--------------------|----|---------|---------|---------|---------|---------|---------|
| Economic Net Debt  | €m | (6,691) | (4,167) | (2,161) | (2,228) | (1,865) | (1,219) |
| Net debt / EBITDA  | x  | 3.9x    | 2.0x    | 1.2x    | 1.4x    | 1.1x    | 0.6x    |
| Financial Net Debt | €m | (4,931) | (2,369) | (271)   | (241)   | 224     | 979     |
| Fin ND/EBITDA      | x  | 2.9x    | 1.1x    | 0.1x    | 0.2x    | -0.1x   | -0.5x   |

Source: Company data, Barclays Research

FIGURE 30

**Uniper Cash Flow Statement**

| €m                                          | 2015         | 2016           | 2017E          | 2018E        | 2019E        | 2020E          |
|---------------------------------------------|--------------|----------------|----------------|--------------|--------------|----------------|
| Net Income                                  | (3,757)      | (3,234)        | 865            | 716          | 816          | 991            |
| + Income Tax                                | 396          | (1,024)        | 211            | 176          | 201          | 241            |
| + Net Finance Costs                         | (36)         | 285            | 15             | 88           | 96           | 101            |
| - Share of Associates                       | (60)         | (101)          | (19)           | (26)         | (22)         | (38)           |
| - D&A and Impairment                        | 5,357        | 4,135          | 676            | 642          | 645          | 628            |
| <b>EBITDA (unadjusted)</b>                  | <b>1,900</b> | <b>61</b>      | <b>1,748</b>   | <b>1,596</b> | <b>1,736</b> | <b>1,923</b>   |
| Net interest paid                           | (152)        | (186)          | 7              | (1)          | (4)          | (2)            |
| Tax payments                                | (404)        | 6              | 53             | 43           | 50           | (241)          |
| Dividends received                          | 60           | 88             | 7              | 9            | 8            | 14             |
| +/- Changes in Provisions                   | 1,388        | 11             | (608)          | (503)        | (247)        | (41)           |
| +/- Changes in Def Taxes                    | (50)         | (1,184)        | -              | -            | -            | -              |
| +/- Gains/Losses of disposal of assets      | (27)         | (404)          | -              | -            | -            | -              |
| +/- Changes in Working Capital              | (238)        | 2,529          | 166            | 48           | (19)         | (31)           |
| +/- Changes in Other Operating Receivables  | (2,785)      | 2,038          | -              | -            | -            | -              |
| +/- Other Non-Cash Income/Expenses          | 1,577        | (1,707)        | -              | -            | -            | 41             |
| <b>Cash Flow from Operating Activities</b>  | <b>1,465</b> | <b>2,184</b>   | <b>1,372</b>   | <b>974</b>   | <b>1,270</b> | <b>1,662</b>   |
| Operating CF before Interest and Taxes      | 2,021        | 2,364          | 1,312          | 1,151        | 1,478        | 1,906          |
| Adj FFO post MC                             | 382          | 1,403          | 523            | 272          | 770          | 1,162          |
| - Capital Expenditure                       | (1,083)      | (781)          | (850)          | (702)        | (500)        | (500)          |
| +/- (Acquisitions)/Disposals                | 911          | 2,014          | 1,808          | -            | -            | -              |
| +/- Changes in Interest Bearing Receivables | (438)        | (1,561)        | -              | -            | -            | -              |
| +/- Changes in Restricted Cash              | (10)         | (11)           | -              | -            | -            | -              |
| <b>Net Cash from Investing Activities</b>   | <b>(610)</b> | <b>(328)</b>   | <b>958</b>     | <b>(702)</b> | <b>(500)</b> | <b>(500)</b>   |
| +/- Change in Equity                        | (2)          | 127            | -              | -            | -            | -              |
| - Dividends Paid to Shareholders/Minorities | (745)        | (2,782)        | (257)          | (271)        | (331)        | (445)          |
| +/- Change in Financial Liabilities         | (232)        | 655            | (1,942)        | (293)        | (146)        | (718)          |
| <b>Net Cash from Financing Activities</b>   | <b>(979)</b> | <b>(2,000)</b> | <b>(2,200)</b> | <b>(564)</b> | <b>(478)</b> | <b>(1,162)</b> |

Source: Company data, Barclays Research

FIGURE 31

**Uniper Balance Sheet**

| €m                                           | 2015            | 2016            | 2017E           | 2018E           | 2019E           | 2020E           |
|----------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Property, Plant and Equipment                | 14,297          | 11,700          | 10,065          | 10,126          | 9,981           | 9,853           |
| Goodwill                                     | 2,555           | 2,701           | 2,701           | 2,701           | 2,701           | 2,701           |
| Intangible Assets                            | 2,159           | 2,121           | 2,121           | 2,121           | 2,121           | 2,121           |
| Associates                                   | 1,136           | 827             | 839             | 856             | 870             | 894             |
| Other Financial Assets                       | 558             | 728             | 740             | 753             | 766             | 779             |
| Financial Receiv. & Other Fin. Assets        | 3,029           | 3,029           | 3,054           | 3,054           | 3,054           | 3,054           |
| Operating Receiv. & Other non-current Assets | 4,687           | 4,687           | 3,857           | 3,857           | 3,857           | 3,857           |
| Deferred Tax Assets& inc. Tax assets         | 1,040           | 1,040           | 2,211           | 2,211           | 2,211           | 2,211           |
| <b>Total Non-Current Assets</b>              | <b>29,461</b>   | <b>27,199</b>   | <b>25,589</b>   | <b>25,678</b>   | <b>25,561</b>   | <b>25,471</b>   |
| Inventories                                  | 1,734           | 1,746           | 1,679           | 1,675           | 1,679           | 1,686           |
| Trade Receivables                            | 23,085          | 18,250          | 18,034          | 17,944          | 18,007          | 18,099          |
| Income tax assets                            | 296             | 64              | 64              | 64              | 64              | 64              |
| Financial Receivables                        | 8,359           | 1,268           | 1,268           | 1,268           | 1,268           | 1,268           |
| Assets held for sale                         | 228             | 3               | 3               | 3               | 3               | 3               |
| Liquid funds (excl Cash)                     | 61              | 172             | 172             | 172             | 172             | 172             |
| Cash and Cash Equivalents                    | 299             | 169             | 300             | 8               | 300             | 300             |
| <b>Total Current Assets</b>                  | <b>34,062</b>   | <b>21,672</b>   | <b>21,520</b>   | <b>21,134</b>   | <b>21,493</b>   | <b>21,592</b>   |
| <b>Total Assets</b>                          | <b>63,523</b>   | <b>48,871</b>   | <b>47,109</b>   | <b>46,812</b>   | <b>47,054</b>   | <b>47,062</b>   |
| Accumulated OCI                              | (4,223)         | 8,065           | 8,857           | 9,378           | 9,966           | 10,629          |
| Equity (net assets) attr. To E.ON            | 18,684          | 18,684          | 4,156           | 4,156           | 4,156           | 4,156           |
| Minority Interests                           | 540             | 582             | 410             | 347             | 252             | 149             |
| <b>Equity</b>                                | <b>15,001</b>   | <b>12,803</b>   | <b>13,423</b>   | <b>13,881</b>   | <b>14,375</b>   | <b>14,934</b>   |
| Financial Liabilities                        | (2,296)         | (2,376)         | (494)           | (141)           | 6               | 723             |
| Provisions                                   | (6,605)         | (7,302)         | (18,231)        | (6,191)         | (5,944)         | (5,903)         |
| Deferred Tax Liabilities                     | (1,622)         | (1,601)         | (210)           | (2,085)         | (2,334)         | (2,635)         |
| Operating Liabilities                        | (3,781)         | (3,993)         | (1,766)         | (3,993)         | (3,993)         | (4,034)         |
| <b>Total Non-Current Liabilities</b>         | <b>(14,304)</b> | <b>(15,272)</b> | <b>(494)</b>    | <b>(12,409)</b> | <b>(12,265)</b> | <b>(11,848)</b> |
| Financial Liabilities                        | (10,551)        | (494)           | (494)           | (494)           | (494)           | (494)           |
| Trade Payables                               | (20,642)        | (18,348)        | (18,231)        | (18,185)        | (18,233)        | (18,301)        |
| Other Operating Liabilities                  | (338)           | (188)           | (210)           | (77)            | 79              | 281             |
| Provisions                                   | (2,569)         | (1,766)         | (1,766)         | (1,766)         | (1,766)         | (1,766)         |
| Other Current Liabilities                    | (118)           | -               | -               | -               | -               | -               |
| <b>Total Current Liabilities</b>             | <b>(34,218)</b> | <b>(20,796)</b> | <b>(20,700)</b> | <b>(20,523)</b> | <b>(20,414)</b> | <b>(20,281)</b> |
| <b>Total Equity and Liabilities</b>          | <b>63,523</b>   | <b>48,871</b>   | <b>47,109</b>   | <b>46,812</b>   | <b>47,054</b>   | <b>47,062</b>   |

Source: Company data, Barclays Research

| European Utilities | Industry View: NEUTRAL     |
|--------------------|----------------------------|
| RWE (RWE.G.DE)     | Stock Rating: EQUAL WEIGHT |

| Income statement (€mn) | 2016A  | 2017E  | 2018E  | 2019E  | CAGR  |
|------------------------|--------|--------|--------|--------|-------|
| Revenue                | 45,833 | 49,125 | 48,860 | 48,914 | 2.2%  |
| EBITDA (adj)           | 5,403  | 5,622  | 5,453  | 5,671  | 1.6%  |
| EBIT (adj)             | 3,082  | 3,631  | 3,451  | 3,690  | 6.2%  |
| Pre-tax income (adj)   | -5,807 | 2,574  | 2,431  | 2,675  | N/A   |
| Net income (adj)       | 777    | 1,179  | 1,083  | 1,207  | 15.8% |
| EPS (adj) (€)          | 1.26   | 1.92   | 1.76   | 1.96   | 15.8% |
| Diluted shares (mn)    | 614.7  | 614.7  | 614.7  | 614.7  | 0.0%  |
| DPS (€)                | 0.13   | 1.50   | 0.60   | 0.70   | 75.3% |

| Margin and return data   | Average |      |      |      |      |
|--------------------------|---------|------|------|------|------|
| EBITDA (adj) margin (%)  | 11.8    | 11.4 | 11.2 | 11.6 | 11.5 |
| EBIT (adj) margin (%)    | 6.7     | 7.4  | 7.1  | 7.5  | 7.2  |
| Pre-tax (adj) margin (%) | -12.7   | 5.2  | 5.0  | 5.5  | 0.8  |
| Net (adj) margin (%)     | 1.7     | 2.4  | 2.2  | 2.5  | 2.2  |
| ROIC (%)                 | -1.7    | 5.5  | 5.2  | 5.5  | 3.6  |
| ROA (%)                  | -1.1    | 3.4  | 3.2  | 3.4  | 2.2  |
| ROE (%)                  | 9.2     | 12.5 | 9.8  | 10.4 | 10.5 |

| Cash flow and balance sheet (€mn) | CAGR   |        |        |        |       |
|-----------------------------------|--------|--------|--------|--------|-------|
| Cash flow from operations         | 2,352  | -2,277 | 4,269  | 4,212  | 21.4% |
| Capital expenditure               | -2,382 | -2,972 | -2,972 | -2,834 | N/A   |
| Free cash flow                    | 325    | -4,955 | 1,592  | 1,672  | 72.6% |
| Net PP&E                          | 24,455 | 25,436 | 26,406 | 27,259 | 3.7%  |
| Total net assets                  | 7,990  | 10,935 | 11,135 | 12,016 | 14.6% |
| Capital employed                  | 47,552 | 47,733 | 48,020 | 48,507 | 0.7%  |
| Shareholders' equity              | 2,754  | 5,628  | 5,788  | 6,626  | 34.0% |
| Net debt/(funds)                  | 22,709 | 21,286 | 21,505 | 21,190 | -2.3% |

| Valuation and leverage metrics | Average |       |      |      |      |
|--------------------------------|---------|-------|------|------|------|
| P/E (adj) (x)                  | 16.5    | 10.9  | 11.8 | 10.6 | 12.5 |
| EV/EBITDA (adj) (x)            | 7.8     | 8.0   | 8.4  | 8.1  | 8.1  |
| EV/NOPAT (x)                   | -48.7   | 17.2  | 18.4 | 17.2 | 1.0  |
| Equity FCF yield (%)           | 2.8     | -42.0 | 13.5 | 14.2 | -2.9 |
| P/BV (x)                       | 1.6     | 1.2   | 1.1  | 1.1  | 1.2  |
| Dividend yield (%)             | 0.6     | 7.2   | 2.9  | 3.4  | 3.5  |
| Net debt/EBITDA (adj) (x)      | 4.2     | 3.8   | 3.9  | 3.7  | 3.9  |

| Selected operating metrics (€)       | Average |      |      |      |      |
|--------------------------------------|---------|------|------|------|------|
| Payout ratio (%)                     | 10.3    | 78.2 | 34.1 | 35.7 | 39.6 |
| Baseload power price Germany (€/MWh) | 28.1    | 27.6 | 26.5 | 26.2 | 27.1 |
| Baseload power price UK (£/MWh)      | 40.4    | 46.9 | 43.0 | 47.4 | 44.4 |
| Achieved CDS - Germany (€/MWh)       | 11.8    | 8.9  | 7.9  | 7.5  | 9.0  |
| Achieved CSS - Germany (€/MWh)       | 3.7     | -1.4 | -3.4 | -3.8 | -1.2 |
| Achieved CDS - UK (£/MWh)            | 7.8     | 2.6  | 2.8  | 7.6  | 5.2  |
| Achieved CSS - UK (£/MWh)            | 12.5    | 5.8  | 5.9  | 10.3 | 8.6  |

Price (24-Aug-2017) EUR 20.80  
Price Target EUR 22.00

**Why Equal Weight?** With its large portfolio of firm thermal capacity (especially lignite), RWE is very positively geared to higher coal and power prices, as well as to any tightening in German and other core EU power markets as older plant is retired over the next few years. At the same time, it is negatively geared to higher carbon prices and tougher German/EU climate policy.

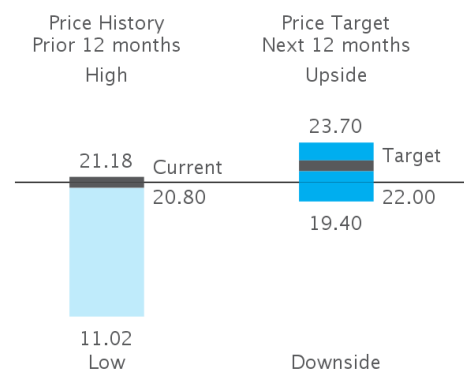
**Upside case** EUR 23.70

Assumes (i) that the long-term coal price increases by \$5/t by 2020 (versus our base-case assumption of \$61/t), and (ii) that UK capacity payments for RWE's ~8GW of eligible coal and gas capacity are £5/kW lower than our base-case estimates from 2021/22 onwards.

**Downside case** EUR 19.40

Assumes that the long-term coal price drops by \$5/t by 2020 (versus our base-case assumption of \$61/t), (ii) that UK capacity payments for gas and coal are £5/kW lower than our estimates from 2021/22 onwards, and (iii) that long-term carbon prices are €5/t higher than our base case

#### Upside/Downside scenarios



Source: Company data, Barclays Research  
Note: FY End Dec

## RWE (EW, PT RAISED TO €22 FROM €19.1): DECISION TIME

### Investment thesis

After winning its legal appeal against the Nuclear Fuel Tax, RWE's financial position has improved substantially. In late June, the German Government reimbursed €1.7bn paid by RWE over 2011-16 and it will receive a further €200m of accrued interest in H2 (for a total post-tax cash influx of ~€1.7bn as the interest is offset by tax on the refund). This boost to its balance sheet means that on our updated numbers RWE is now on track to end 2017 with a ND/EBITDA ratio of 3.8x (versus 4.1x previously), which then trends down to 3.5x by 2020 (4x on our previous numbers), even though we also modestly increase our estimates for the ordinary dividend from 2018 onwards. With its large portfolio of firm thermal capacity (especially lignite), RWE is very positively geared to higher coal and power prices, as well as to any tightening in Germany and other European power markets as nuclear and older and/or unprofitable fossil-fuel capacity is retired over the next few years. At the same time, however, it is negatively geared to higher carbon prices, and this poses a serious strategic challenge in the face of (i) the finalisation of the EU-ETS reform package due this autumn, and (ii) the significant emissions reductions required from the power sector over the next decade under Germany's CAP-2050 policy framework. On our updated earnings forecasts, RWE now trades on a forward P/E multiple of 11.9x for 2018E, but it is yielding only 3.3% even in 2019. After updating our SOTP valuation in light of the H1 results, we upgrade our PT to €22 from €19.1, and with the shares now trading close to our revised PT, we remain EW.

**Highly geared to a power-price recovery, but negatively geared to carbon prices:** RWE has rallied strongly recently on higher coal prices feeding through into the forward power curve, and we estimate that \$5/t on the long-term coal price is worth €1.2/share on RWE's SOTP. At the same time, given RWE's large lignite portfolio, we estimate that a €5/t increase in the long-term EU carbon price from 2020 would reduce RWE's valuation by €1.2/share.

**Could RWE bid for E.ON's Uniper stake?:** RWE indicated at both its FY results in March<sup>23</sup> and its CMD immediately afterwards that it could be interested in growth opportunities in conventional power generation in its core EU markets, and that it will look at "all options". More recently, in response to a question regarding a possible bid for E.ON's stake in Uniper at the press conference for its H1 results on 14 August, CEO Rolf Martin Schmitz was reported as saying "I have repeatedly said that we are considering all options, and all options means all".<sup>24</sup> Like RWE, Uniper has thermal-generation assets in Germany, the UK, and the Netherlands, and although Uniper has assets in Sweden and Russia that would not be a strategic fit,<sup>25</sup> we think there is considerable overlap between RWE and Uniper, and hence enough industrial logic to make it worth RWE considering a bid. We also think the strategic rationale would be all the greater if the final EU-ETS reform package to be agreed this autumn points to a significant tightening of the EU carbon market from 2019 onwards.

**Risks to thesis and valuation:** On a 12-month view, the main upside risks are (i) that long-term coal and power prices move above the levels assumed in our base case, and (ii) higher capacity payments in the UK from 2021/22 onwards than we assume. The main downside risk is that long-term coal and power prices move below the levels in our base case. Beyond a 12-month horizon, the main risk is tighter German and/or EU climate policy.

<sup>23</sup> See the Reuters article of 13 March 2017, *RWE weighs options as utility M&A talk picks up*

<sup>24</sup> See the Reuters article of 14 August 2017, *RWE CEO, asked about Uniper, says considering all options*.

<sup>25</sup> Mr. Schmitz himself emphasised this point on 15 April 2017 in a German-language press interview in *RP.Online*. However, in his most recent comments on Uniper as quoted in the Reuters article of 14 August referenced above, he appeared to soften his tone slightly with regard to those aspects of Uniper's portfolio that do not fit with RWE's strategy, saying that RWE had no interest in being a "long-term" shareholder in nuclear power stations outside Germany.

## Valuation: raising PT to €22 (€19.1 previously)

Figure 32 shows our updated SOTP for RWE. We now see fair value for the Group at €13.5bn, equating to €22/share compared with €19.1 previously.

FIGURE 32

### Fair Value SOTP Valuation for RWE

|                                              | Method              | €m            | €/share     | EV/EBITDA FY17 |
|----------------------------------------------|---------------------|---------------|-------------|----------------|
| Conventional Power                           | DCF                 | 6,502         | 10.6        | 6.1x           |
| Nuclear                                      | Multiples           | 916           | 1.5         | 2.0x           |
| Lignite                                      | DCF                 | 3,048         | 5.0         | 4.1x           |
| Coal                                         | DCF                 | 684           | 1.1         | 3.5x           |
| Gas                                          | DCF                 | 1,855         | 3.0         | 10.5x          |
| Trading/ Gas Midstream                       | Multiples           | 893           | 1.5         | 5x             |
| Innogy (Equity Share at 76.8%)               | Fair Value Equity   | 14,518        | 23.6        | nm             |
| Consolidation (excl. Innogy)                 | Multiples           | (300)         | (0.5)       | 5x             |
| <b>Enterprise Value</b>                      | <b>-</b>            | <b>21,613</b> | <b>35.2</b> | <b>3.8x</b>    |
| Share Investments - Consolidated             | Book value YE17     | 724           | 1.2         | 1x             |
| RWE Associates                               | CPG Multiple        | 490           | 0.8         | 5.1x           |
| Fin Net Debt, incl Fin Assets - Consolidated | Book value YE17     | (6,968)       | (11.3)      | 1x             |
| Pension Provisions - Consolidated            | Book value YE17     | (6,906)       | (11.2)      | 1x             |
| Asset Retirement Obligations - Consolidated  | Book value YE17     | (8,347)       | (13.6)      | 1x             |
| Other Provisions- Consolidated               | Book value YE16     | (3,552)       | (5.8)       | -              |
| RWE Consolidated Net Debt and Provisions     |                     | (25,774)      | (41.9)      |                |
| Less Innogy Net Economic Debt/ Provisions    | Fair Value Barclays | 16,454        | 26.8        |                |
| <b>Equity Value</b>                          | <b>-</b>            | <b>13,507</b> | <b>22.0</b> | <b>-</b>       |
| <b>Share Count (mn)</b>                      |                     | <b>614.7</b>  |             |                |
| <b>Price Target</b>                          |                     | <b>22.0</b>   |             |                |

Source: Barclays Research estimates

We make three main changes to our valuation.

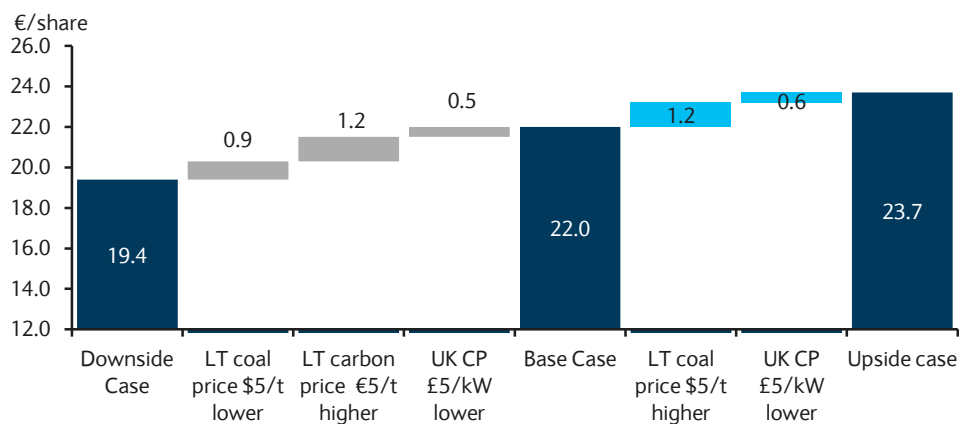
- 1. Raising our long-term coal-price forecast from 2020 to \$61/t (+€1.2/share):** Coal prices have risen over the summer in keeping with increased demand from key Asian importers in response to weather conditions (lower hydro output in China) and new coal-fired capacity coming on-stream (South Korea). Our revised long-term price of \$61/t (\$56/t previously) is still some way below the 2020 forward curve for ARA coal (\$70/t), but we would expect longer-dated prices to fall back over the next 12 months, and then to stabilise.
- 2. Increased valuation of Innogy stake (+€0.7/share):** We raise our SOTP valuation of Innogy to €34/share from €33/share, and adjusting the value of RWE's stake accordingly raises our valuation of RWE by €450m.
- 3. Other adjustments (+€1/share):** We make numerous other minor adjustments – lower projected economic net debt for year-end 2017, lower holding-company costs and lower other provisions – that combined result in a net increase in our fair value of €1/share.

Figure 33 then shows our upside and downside cases against our revised fair value.

**Upside case (€23.7/share):** Our upside scenario of €23.7/share assumes (i) that the long-term coal price is higher by \$5/t from 2020 onwards than the \$61/t we now have in our base case, and (ii) that UK capacity payments for RWE's ~8GW of eligible coal and gas capacity are £5/kW lower versus our estimates for the years 2021/22 onwards;.

FIGURE 33

**Upside and downside valuations for RWE versus our base case**



Source: Barclays Research estimates

**Downside case (€19.4/share):** Our downside scenario of €19.4/share assumes (i) that UK capacity payments for RWE's ~8GW of eligible coal and gas capacity are £5/kW lower versus our estimates for the years 2021/22 onwards, (ii) that the long-term carbon price is higher by €5/t than the €6/t we currently have in our model from 2020 onwards, and (iii) that the long-term coal price is lower by \$5/t from 2020 than the \$61/t we now have in our estimates.

## EPS upgrades and higher dividends over 2017-2020

Figure 34 shows our updated EBIT numbers for RWE versus our previous estimates. On average, our revised numbers are ~2% higher over 2017-20, with 2017 and 2020 seeing the biggest changes.

FIGURE 34

**Changes to our EBIT forecasts for RWE**

| EBIT, €/share | 2017E | 2018E | 2019E | 2020E |
|---------------|-------|-------|-------|-------|
| Previous      | 3,493 | 3,543 | 3,657 | 3,604 |
| New           | 3,631 | 3,451 | 3,690 | 3,816 |
| Change        | 4.2%  | -2.6% | 0.9%  | 5.9%  |

Source: Barclays Research estimates

Our 2017 number is now 4% higher owing to (i) a bigger positive impact from efficiency improvements in the power-generation business, (ii) lower holding-company costs than we were previously assuming (although a large part of this benefit is a one-off effect in 2017), and (iii) lower interest expenses.

For 2020, we now assume that RWE is able to start hedging at higher power prices than we were previously assuming owing to the positive impact on German baseload power prices from the recent surge in coal prices.

Figure 35 then sets out our revised estimates for RWE's EPS and DPS over 2017-19. Our EPS estimates over 2017-19 are on average 16% higher over 2017-20 owing both to the uplift to our EBIT forecasts, and to the lower annual financing charges that we are now projecting over our forecast period.

Following RWE's victory in its legal challenge to the NFT and the subsequent refund of €1.7bn in tax paid, the balance sheet now offers scope to be more generous on dividends. So far, management has committed to an ordinary dividend of €0.5/share for 2017 with a special dividend of €1/share on top of this, but for 2018 and beyond it has said only that the €0.5/share ordinary dividend for 2017 will serve as a floor for future dividend payments.

We think that management wants to retain sufficient flexibility to respond to consolidation opportunities in its core markets, but we also think it can be a bit more generous on the ordinary dividend than we were previously assuming. Accordingly, we raise our DPS forecasts for 2018-20 and now project growth in the ordinary dividend of €0.10 per year (versus €0.05 previously). This results in an ordinary DPS of €0.8/share by 2020, equating to a payout ratio of 40%.

FIGURE 35

**Changes to our EPS and DPS forecasts for RWE**

| Adjusted EPS, €/share | 2017E        | 2018E        | 2019E        | 2020E        |
|-----------------------|--------------|--------------|--------------|--------------|
| Previous              | 1.74         | 1.58         | 1.66         | 1.65         |
| <b>New</b>            | 1.92         | 1.76         | 1.96         | 2.06         |
| <b>Change</b>         | <b>11.6%</b> | <b>11.3%</b> | <b>18.1%</b> | <b>24.8%</b> |
| Ordinary DPS, €/share | 2017E        | 2018E        | 2019E        | 2020E        |
| Previous              | 0.50         | 0.55         | 0.60         | 0.65         |
| <b>New</b>            | <b>0.50*</b> | <b>0.60</b>  | <b>0.70</b>  | <b>0.80</b>  |
| <b>Change</b>         | <b>n/a</b>   | <b>9.1%</b>  | <b>16.6%</b> | <b>23.1%</b> |
| <b>Payout ratio</b>   | <b>26%</b>   | <b>34%</b>   | <b>36%</b>   | <b>40%</b>   |

Source: Barclays Research estimates. \*RWE will also pay a special dividend of €1/share for FY 2017 on top of this.

Figure 36 then sets out our revised forecasts for RWE's ND/EBITDA ratio. Given the lower starting point for net debt at year-end 2017, the leverage ratio now falls more quickly than was the case under our previous projections despite the higher dividends we are now assuming.

FIGURE 36

**Changes to our ND/EBITDA ratio forecasts for RWE**

| ND/EBITDA  | 2017E       | 2018E       | 2019E       | 2020E       |
|------------|-------------|-------------|-------------|-------------|
| Previous   | 4.1x        | 4.1x        | 4.0x        | 4.0x        |
| <b>New</b> | <b>3.8x</b> | <b>3.9x</b> | <b>3.7x</b> | <b>3.6x</b> |

Source: Barclays Research estimates

On our revised numbers, RWE's ND/EBITDA ratio falls to 3.8x by year-end 2017 and although it rises slightly again in 2018 in keeping with the payment of the €1/share special dividend, it then reverts to a declining trend to reach 3.6x by 2020, well below the 4x we were previously projecting.

## Financials

FIGURE 37

### RWE Divisional EBITDA and EBIT

| €m                     | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|------------------------|--------------|--------------|--------------|--------------|--------------|
| Conv. Power Generation | 1,456        | 1,057        | 729          | 865          | 920          |
| Trading/ Gas Midstream | (139)        | 199          | 201          | 204          | 206          |
| Innogy                 | 4,203        | 4,396        | 4,583        | 4,662        | 4,755        |
| Consolidation/ Other   | (117)        | (30)         | (60)         | (60)         | (60)         |
| <b>Group EBITDA</b>    | <b>5,403</b> | <b>5,622</b> | <b>5,453</b> | <b>5,671</b> | <b>5,821</b> |
| Conv. Power Generation | 627          | 563          | 239          | 429          | 487          |
| Trading/ Gas Midstream | (145)        | 192          | 195          | 197          | 200          |
| Innogy                 | 2,735        | 2,905        | 3,077        | 3,124        | 3,189        |
| Consolidation/ Other   | (135)        | (30)         | (60)         | (60)         | (60)         |
| <b>Group EBIT</b>      | <b>3,082</b> | <b>3,631</b> | <b>3,451</b> | <b>3,690</b> | <b>3,816</b> |

Source: Company information, Barclays Research estimates

FIGURE 38

### RWE Financial Statements (adj)

| €m                                | 2016           | 2017E        | 2018E        | 2019E        | 2020E        |
|-----------------------------------|----------------|--------------|--------------|--------------|--------------|
| <b>Adjusted EBITDA</b>            | <b>5,403</b>   | <b>5,622</b> | <b>5,453</b> | <b>5,671</b> | <b>5,821</b> |
| Depreciation & Amortisation       | (3,181)        | (1,991)      | (2,002)      | (1,981)      | (2,005)      |
| <b>Adjusted EBIT</b>              | <b>3,082</b>   | <b>3,631</b> | <b>3,451</b> | <b>3,690</b> | <b>3,816</b> |
| Non-operating Result              | (6,661)        | -            | -            | -            | -            |
| Financial Result                  | (2,228)        | (1,057)      | (1,019)      | (1,015)      | (997)        |
| <b>Profit before tax</b>          | <b>(5,807)</b> | <b>2,574</b> | <b>2,431</b> | <b>2,675</b> | <b>2,819</b> |
| Income tax                        | 323            | (728)        | (672)        | (744)        | (799)        |
| <b>Income</b>                     | <b>(5,484)</b> | <b>1,846</b> | <b>1,759</b> | <b>1,931</b> | <b>2,020</b> |
| Minority Interests, incl Innogy   | (167)          | (609)        | (634)        | (681)        | (710)        |
| Hybrid Interests                  | (59)           | (58)         | (43)         | (43)         | (43)         |
| <b>Income to RWE Shareholders</b> | <b>(5,710)</b> | <b>1,179</b> | <b>1,083</b> | <b>1,207</b> | <b>1,267</b> |
| <b>Adjusted net Income</b>        | <b>777</b>     | <b>1,179</b> | <b>1,083</b> | <b>1,207</b> | <b>1,267</b> |
| Adjusted EPS                      | 1.26           | 1.92         | 1.76         | 1.96         | 2.06         |
| Ordinary DPS (€/share)            | 0.13           | 0.50*        | 0.60         | 0.70         | 0.80         |
| Payout (%)                        | 0.0%           | 29%          | 35%          | 36%          | 39%          |

Source: Company information, Barclays Research estimates. \* RWE will also pay a special dividend of €1/share for FY 2017 on top of this ordinary dividend.

FIGURE 39

### RWE Leverage

|                    |    | 2016     | 2017E    | 2018E    | 2019E    | 2020E    |
|--------------------|----|----------|----------|----------|----------|----------|
| Economic Net Debt  | €m | (22,709) | (21,286) | (21,505) | (21,190) | (20,703) |
| Net debt / EBITDA  | x  | 4.2x     | 3.8x     | 3.9x     | 3.7x     | 3.6x     |
| Financial Net Debt | €m | (1,659)  | (6,968)  | (7,227)  | (6,896)  | (6,385)  |
| Fin ND/EBITDA      | x  | 0.3x     | 1.2x     | 1.3x     | 1.2x     | 1.1x     |

Source: Company information, Barclays Research estimates.

FIGURE 40

**RWE Cash Flow Statement**

| €m                                         | 2016           | 2017E          | 2018E          | 2019E          | 2020E          |
|--------------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Net Income                                 | (5,484)        | 1,846          | 1,759          | 1,931          | 2,020          |
| + Income Tax                               | (323)          | 728            | 672            | 744            | 799            |
| + Net Finance Costs                        | 2,228          | 1,057          | 1,019          | 1,015          | 997            |
| - Share of Associates                      | (540)          | (673)          | (680)          | (696)          | (710)          |
| + D&A and Impairment                       | 6,670          | 1,991          | 2,002          | 1,981          | 2,005          |
| <b>EBITDA (unadjusted)</b>                 | <b>2,551</b>   | <b>4,949</b>   | <b>4,773</b>   | <b>4,975</b>   | <b>5,111</b>   |
| Net interest paid                          | (643)          | (479)          | (461)          | (450)          | (424)          |
| Tax payments                               | (627)          | (400)          | (365)          | (415)          | (442)          |
| Dividends received                         | 333            | 373            | 378            | 389            | 400            |
| Nukes Decommissioning                      | (215)          | (215)          | (331)          | (283)          | (283)          |
| +/- Changes in Provisions                  | 3,052          | (6,904)        | (39)           | 16             | 24             |
| +/- Gains/Losses of disposal of assets     | (227)          | -              | -              | -              | -              |
| +/- Changes in Working Capital             | (661)          | 399            | 315            | (21)           | (14)           |
| +/- Other Non-Cash Income/Expenses         | (1,211)        | -              | -              | -              | -              |
| <b>Cash Flow from Operating Activities</b> | <b>2,352</b>   | <b>(2,277)</b> | <b>4,269</b>   | <b>4,212</b>   | <b>4,370</b>   |
| <b>FCF (CFO-PPE Capex)</b>                 | <b>325</b>     | <b>(4,955)</b> | <b>1,592</b>   | <b>1,672</b>   | <b>1,939</b>   |
| - Capex on PPE & fin. Assets               | (2,382)        | (2,972)        | (2,972)        | (2,834)        | (2,726)        |
| +/- (Acquisitions)/Disposals               | 399            | -              | -              | -              | -              |
| +/- Changes in int. Bearing Receivables    | (2,587)        | -              | -              | -              | -              |
| <b>Net Cash from Investing Activities</b>  | <b>(4,570)</b> | <b>(2,972)</b> | <b>(2,972)</b> | <b>(2,834)</b> | <b>(2,726)</b> |
| +/- Change in Equity                       | 4,514          | -              | -              | -              | -              |
| - Divis Paid to Shareholders/Minorities    | (407)          | (665)          | (1,560)        | (1,050)        | (1,137)        |
| +/- Change in Financial Liabilities        | 175            | 2,342          | 262            | (328)          | (507)          |
| <b>Net Cash from Financing Activities</b>  | <b>4,282</b>   | <b>3,377</b>   | <b>(1,297)</b> | <b>(1,378)</b> | <b>(1,644)</b> |
| <b>Net (Decrease)/Increase in Cash</b>     | <b>2,064</b>   | <b>(1,872)</b> | <b>-</b>       | <b>-</b>       | <b>-</b>       |

Source: Company information, Barclays Research estimates.

FIGURE 41

**RWE Balance Sheet**

| €m                                               | 2016            | 2017E           | 2018E           | 2019E           | 2020E           |
|--------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Property, Plant and Equipment                    | 24,455          | 25,436          | 26,406          | 27,259          | 27,980          |
| Intangible Assets                                | 12,749          | 12,749          | 12,749          | 12,749          | 12,749          |
| Companies a/c for under Equity Method (Assoc)    | 3,129           | 2,908           | 3,208           | 3,509           | 3,816           |
| Other Financial Assets                           | 1,118           | 724             | 727             | 731             | 734             |
| Financial Receivables and Other Financial Assets | 504             | 403             | 405             | 407             | 409             |
| Operating receivables&other non-current assets   | 1,810           | 1,175           | 1,175           | 1,175           | 1,175           |
| Deferred Tax Assets& inc. Tax assets             | 2,661           | 3,103           | 3,103           | 3,103           | 3,103           |
| <b>Total Non-Current Assets</b>                  | <b>45,911</b>   | <b>46,799</b>   | <b>48,076</b>   | <b>49,241</b>   | <b>50,279</b>   |
| Inventories                                      | 1,968           | 2,399           | 2,394           | 2,386           | 2,383           |
| Trade Receivables                                | 4,999           | 5,358           | 5,329           | 5,335           | 5,344           |
| Income tax assets                                | 234             | 626             | 621             | 615             | 609             |
| Financial Receivables & other assets             | 10,162          | 8,889           | 8,889           | 8,889           | 8,889           |
| Assets held for sale                             | -               | -               | -               | -               | -               |
| Liquid funds (excl Cash)                         | 9,825           | 9,825           | 9,825           | 9,825           | 9,825           |
| Cash and Cash Equivalents                        | 4,576           | 2,704           | 2,704           | 2,704           | 2,704           |
| <b>Total Current Assets</b>                      | <b>30,491</b>   | <b>29,801</b>   | <b>29,762</b>   | <b>29,754</b>   | <b>29,755</b>   |
| <b>Total Assets</b>                              | <b>76,402</b>   | <b>76,600</b>   | <b>77,838</b>   | <b>78,995</b>   | <b>80,033</b>   |
| Accumulated Other Comprehensive Income           | 2,754           | 5,628           | 5,788           | 6,626           | 7,462           |
| Hybrid Capital Interest                          | 1,007           | 1,007           | 1,007           | 1,007           | 1,007           |
| Minority Interests                               | 4,301           | 4,301           | 4,340           | 4,384           | 4,430           |
| <b>Equity</b>                                    | <b>10,935</b>   | <b>10,935</b>   | <b>11,135</b>   | <b>12,016</b>   | <b>12,898</b>   |
| Financial Liabilities                            | (16,041)        | (18,319)        | (18,581)        | (18,253)        | (17,746)        |
| Provisions                                       | (20,686)        | (13,782)        | (13,743)        | (13,759)        | (13,783)        |
| Deferred Tax Liabilities                         | (723)           | (928)           | (1,123)         | (1,325)         | (1,546)         |
| Operating Liabilities                            | (2,196)         | (1,981)         | (1,650)         | (1,366)         | (1,083)         |
| <b>Total Non-Current Liabilities</b>             | <b>(39,646)</b> | <b>(35,010)</b> | <b>(35,096)</b> | <b>(34,703)</b> | <b>(34,158)</b> |
| Financial Liabilities                            | (2,142)         | (2,142)         | (2,142)         | (2,142)         | (2,142)         |
| Trade Payables                                   | (5,431)         | (6,620)         | (6,901)         | (6,878)         | (6,870)         |
| Other Operating Liabilities                      | (131)           | (832)           | (1,502)         | (2,194)         | (2,903)         |
| Provisions                                       | (12,175)        | (12,175)        | (12,175)        | (12,175)        | (12,175)        |
| <b>Other Current Liabilities</b>                 | <b>(8,887)</b>  | <b>(8,887)</b>  | <b>(8,887)</b>  | <b>(8,887)</b>  | <b>(8,887)</b>  |
| <b>Total Current Liabilities</b>                 | <b>(28,766)</b> | <b>(30,655)</b> | <b>(31,606)</b> | <b>(32,276)</b> | <b>(32,977)</b> |
| <b>Total Equity and Liabilities</b>              | <b>76,402</b>   | <b>76,600</b>   | <b>77,838</b>   | <b>78,995</b>   | <b>80,033</b>   |

Source: Company information, Barclays Research estimates.

| European Utilities |  |  |  |  | Industry View: NEUTRAL    |
|--------------------|--|--|--|--|---------------------------|
| Innogy SE (IGY.DE) |  |  |  |  | Stock Rating: UNDERWEIGHT |

| Income statement (€mn) | 2016A  | 2017E  | 2018E  | 2019E  | CAGR |
|------------------------|--------|--------|--------|--------|------|
| Revenue                | 41,549 | 44,031 | 44,179 | 44,226 | 2.1% |
| EBITDA (adj)           | 4,203  | 4,397  | 4,553  | 4,599  | 3.0% |
| EBIT (adj)             | 2,735  | 2,907  | 3,027  | 3,042  | 3.6% |
| Pre-tax income (adj)   | 1,861  | 2,157  | 2,245  | 2,300  | 7.3% |
| Net income (adj)       | 1,123  | 1,265  | 1,349  | 1,385  | 7.2% |
| EPS (adj) (€)          | 2.02   | 2.28   | 2.43   | 2.49   | 7.2% |
| Diluted shares (mn)    | 556.0  | 556.0  | 556.0  | 556.0  | 0.0% |
| DPS (€)                | 1.60   | 1.71   | 1.82   | 1.87   | 5.3% |

|                     |           |
|---------------------|-----------|
| Price (24-Aug-2017) | EUR 37.41 |
| Price Target        | EUR 34.00 |

**Why Underweight?** We like Innogy's defensive-growth profile and project that regulated or quasi-regulated activities will contribute 62% of group EBITDA in 2017 and that this ratio will remain constant out to 2020. We now project Innogy's headline EBIT to increase at a three-year CAGR of 2% over 2017-20, with a three-year CAGR in both EPS and DPS of 5% over 2017-20.

| Margin and return data   | Average |      |      |      |      |
|--------------------------|---------|------|------|------|------|
| EBITDA (adj) margin (%)  | 10.1    | 10.0 | 10.3 | 10.4 | 10.2 |
| EBIT (adj) margin (%)    | 6.6     | 6.6  | 6.9  | 6.9  | 6.7  |
| Pre-tax (adj) margin (%) | 4.5     | 4.9  | 5.1  | 5.2  | 4.9  |
| Net (adj) margin (%)     | 2.7     | 2.9  | 3.1  | 3.1  | 2.9  |
| ROIC (%)                 | 4.9     | 6.1  | 6.2  | 6.2  | 5.9  |
| ROA (%)                  | 4.2     | 4.4  | 4.5  | 4.5  | 4.4  |
| ROE (%)                  | 7.7     | 11.8 | 12.3 | 12.5 | 11.1 |

|             |           |
|-------------|-----------|
| Upside case | EUR 37.30 |
|-------------|-----------|

Assumes (i) an incremental €200m of sustainable cost savings in the UK business, and (ii) that the GBP strengthens against the EUR by 10% from 2018 onwards versus our base case (to €1.22 versus €1.11 in our base case).

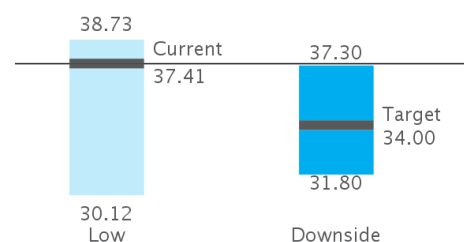
|               |           |
|---------------|-----------|
| Downside case | EUR 31.80 |
|---------------|-----------|

Assumes that (i) returns in Eastern Networks fall by 200 basis points, (ii) that UK retail margins drop to zero from 2018 versus our already now very conservative revised base-case scenario of only 1%, and (iii) the GBP weakens against the EUR by 10% from 2018 onwards.

| Cash flow and balance sheet (€mn) | CAGR   |        |        |        |         |
|-----------------------------------|--------|--------|--------|--------|---------|
| Cash flow from operations         | 2,674  | 2,720  | 3,513  | 3,753  | 12.0%   |
| Capital expenditure               | -1,636 | -2,203 | -2,236 | -2,126 | N/A     |
| Free cash flow                    | 850    | 0      | 0      | 0      | -100.0% |
| Net PP&E                          | 17,954 | 18,668 | 19,377 | 19,945 | 3.6%    |
| Total net assets                  | 69,338 | 71,004 | 71,727 | 72,234 | 1.4%    |
| Capital employed                  | 34,161 | 34,969 | 35,130 | 35,016 | 0.8%    |
| Shareholders' equity              | 8,931  | 8,890  | 8,867  | 8,826  | -0.4%   |
| Net debt/(funds)                  | 15,748 | 16,454 | 16,424 | 16,136 | 0.8%    |

#### Upside/Downside scenarios

|                                          |                                          |
|------------------------------------------|------------------------------------------|
| Price History<br>Prior 12 months<br>High | Price Target<br>Next 12 months<br>Upside |
|------------------------------------------|------------------------------------------|



| Valuation and leverage metrics | Average |      |      |      |      |
|--------------------------------|---------|------|------|------|------|
| P/E (adj) (x)                  | 18.5    | 16.4 | 15.4 | 15.0 | 16.3 |
| EV/EBITDA (adj) (x)            | 9.7     | 9.5  | 9.2  | 9.1  | 9.4  |
| EV/NOPAT (x)                   | 20.8    | 20.1 | 19.3 | 19.1 | 19.8 |
| Equity FCF yield (%)           | 5.0     | 2.5  | 6.1  | 7.8  | 5.4  |
| P/BV (x)                       | 1.9     | 1.9  | 1.9  | 1.9  | 1.9  |
| Dividend yield (%)             | 4.3     | 4.6  | 4.9  | 5.0  | 4.7  |
| EV/IC (x)                      | 1.2     | 1.2  | 1.2  | 1.2  | 1.2  |
| Net debt/EBITDA (adj) (x)      | 3.7     | 3.7  | 3.6  | 3.5  | 3.7  |

| Selected operating metrics    | Average |        |        |        |        |
|-------------------------------|---------|--------|--------|--------|--------|
| Total installed capacity (MW) | 3,094   | 3,322  | 3,393  | 3,393  | 3,301  |
| Total power output (GWh)      | 8,430   | 9,162  | 9,734  | 9,840  | 9,292  |
| RAB (€mn)                     | 13,896  | 14,250 | 14,665 | 15,077 | 14,472 |

Source: Company data, Barclays Research

Note: FY End Dec

## INNOGY (UW, PT RAISED TO €34 FROM €33): CONTINUING STEADY DELIVERY

### Investment thesis

We raise our PT on Innogy to €34 from €33 while retaining our UW rating. Although we continue to like Innogy's defensive growth profile, we think the shares have benefited in recent months from bid speculation relating to a potential acquisition by Engie (EW, PT €13.7), which we do not think is plausible. Our numbers are little changed after the H1 results, and we project regulated or quasi-regulated activities to contribute 62% of group EBITDA in 2017 (up slightly from 60% in 2016), and for this ratio to remain constant out to 2020. We now project Innogy's headline EBIT to increase at a three-year CAGR of 2% over 2017-20, with the Renewables division being the main driver. With interest expenses falling over the second half of our forecast period in line with very meaningful re-financing opportunities in 2019 and 2020, our numbers project a three-year CAGR in EPS of 5% over 2017-20, and assuming a payout ratio of 75% (the middle of the group's 70-80% guidance range) we expect the dividend to grow by 5% compound as well. Overall, we think Innogy continues to display a solid defensive growth profile, and at 4.9% and 5.1% the dividend yield for 2018E and 2019E respectively is in line with sector peers. However, with the shares in our view having benefited from bid speculation since March (which we think is ultimately very unlikely to materialise), and with the current share price 9% above our revised PT of €34, we see more compelling momentum in Innogy's closest peer, E.ON. Accordingly, we remain UW.

**Steady delivery, but we do not see Innogy as a bid target:** Innogy is delivering quarter by quarter on its strategy as set out at the time of its IPO, but ever since speculation was first sparked about a potential bid for Innogy from Engie<sup>26</sup> we have been sceptical, and we remain of the view that the political and economic obstacles to such a deal – most notably the lack of industrial synergies – make it very unlikely to materialise.<sup>27</sup> Engie's CEO, Isabel Kocher, was quick to deny the story

**Is there an overhang risk from RWE's ambitions?:** As explained elsewhere in this report (see the section entitled *To bid or not to bid*, and the company section on RWE), RWE will not rule out a possible bid for E.ON's stake in Uniper, and we think a strong case can be made for the strategic and economic rationale for such a deal. We think that whether RWE ultimately proceeds with a bid for Uniper or not will depend at least in part on the outcome of the EU-ETS reform process, such that if the final package agreed in the autumn leads to expectations of a significant tightening of the carbon market from 2019 onwards RWE will find the strategic logic of a bid more compelling. The key point in all this as far as Innogy is concerned is that if RWE were indeed to bid for Uniper – or for any other asset(s) of strategic interest that might become available for that matter – we think selling down a further portion of its stake in Innogy would be the obvious way to fund such a move.

**Risks to thesis and valuation:** The main downside risks are depreciation in the GBP/EUR exchange rate and a lower allowed rate of return across the group's Network businesses in Eastern Europe. The main upside risks are an appreciation in the GBP/EUR exchange rate and faster growth in the Renewables division than we are now assuming.

<sup>26</sup> See, for example, the Bloomberg report of 13 March, "*Engie Eyes Bid for \$19.8bn Utility Firm Innogy*";

<sup>27</sup> Moreover, Engie's CEO, Isabel Kocher, was quick to deny that Engie was interested in a deal with Innogy. See, for example, the Reuters article of 15 March, "*Utility Engie not interested in Innogy and not seeking transformative deal*".

## Valuation: PT raised to €34 (€33 previously)

Figure 42 shows our updated SOTP for Innogy. We have made only minor adjustments to our fair value for the Group's equity, which now stands at €18.9bn (€18.3bn previously). This lifts our PT to €34/share from €33/share.

FIGURE 42

### Fair Value SOTP Valuation for Innogy

|                               | Method          | €m            | €/share     | EV/EBITDA FY17 |
|-------------------------------|-----------------|---------------|-------------|----------------|
| Energy Networks               | RAB + Outperf.  | 25,197        | 45.3        | 8.9x           |
| Retail                        | DCF, TV         | 6,147         | 11.1        | 6.0x           |
| Renewables                    | DCF             | 7,751         | 13.9        | 11.5x          |
| Wind/Solar                    | DCF             | 6,535         | 11.8        | 10.9x          |
| Hydro                         | DCF             | 805           | 1.4         | 4.8x           |
| Corporate Function            | Multiple        | (792)         | (1.4)       | 4.5x           |
| <b>Enterprise Value</b>       | -               | <b>38,302</b> | <b>68.9</b> | <b>8.7x</b>    |
| Share Investments             | Book value YE17 | 707           | 1.3         | 1.0x           |
| Fin Net Debt, incl Fin Assets | Book value YE17 | (12,061)      | (21.7)      | 1.0x           |
| Pension Provisions            | Book value YE17 | (3,974)       | (7.1)       | 1.0x           |
| ARO provisions                | Book value YE17 | (419)         | (0.8)       | 1.0x           |
| Other Provisions              | Book value YE17 | -             | -           | 0.3x           |
| Minorities                    | At 12x PE       | (3,663)       | (6.6)       |                |
| <b>Equity Value</b>           | -               | <b>18,891</b> | <b>34.0</b> | -              |
| Share Investments             | Book value YE17 | 707           | 1.3         | 1.0x           |
| <b>Number of shares (mn)</b>  |                 | <b>556.0</b>  |             |                |
| <b>Price Target</b>           |                 | <b>34.0</b>   |             |                |

Source: Barclays Research

We make two main changes to our valuation.

- 1. Increase in the value of the Renewables business (+€0.6/share).** We now value Innogy's Renewables division on an implied 2017 EBITDA multiple of 11.5x versus 10.9x previously. This is in line with our valuation for E.ON's Renewables business.
- 2. Other adjustments: (+€0.4/share).** We lower our corporate-overhead costs going forward, and we also take out all non-interest bearing provisions from our valuation and deduct now only the rating agencies' definition of economic net debt from our EV. These effects outweigh the negative impact of a small increase in our projected year-end economic net-debt number.

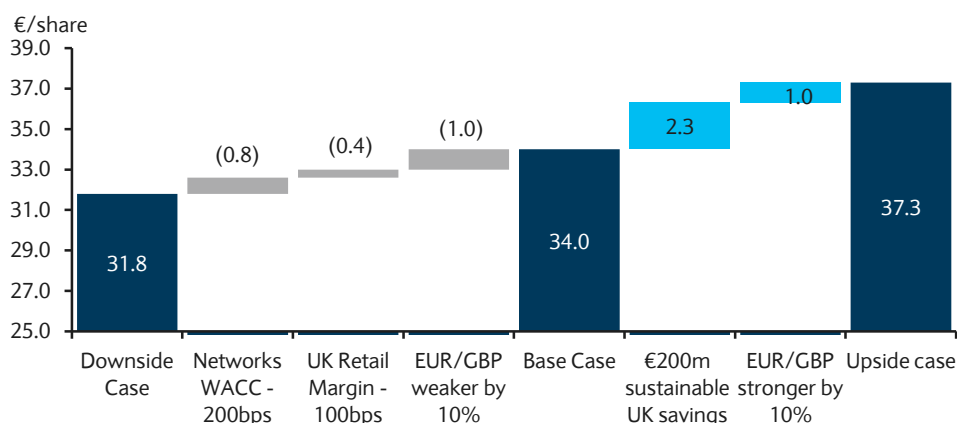
Figure 43 then shows our upside and downside cases against our updated fair value.

**Upside case (€37.3/share):** Our upside scenario assumes an incremental €200m of sustainable cost savings in the UK business, and (ii) that the GBP strengthens against the EUR by 10% from 2018 onwards versus our base case (to €1.22 versus €1.11 in our base case).

**Downside case (€31.8/share):** Our downside case assumes that (i) returns in Eastern Networks fall by 200 basis points, (ii) that UK retail margins drop to zero from 2018 versus our already now very conservative revised base-case scenario of only 1%, and that (iii) the GBP weakens against the EUR by 10% from 2018 onwards, versus our base case (to €1 versus €1.11 in our base case).

FIGURE 43

## Upside and downside valuations for Innogy versus our base case



Source: Barclays Research estimates

## Steady EBIT, single-digit EPS growth, solid dividend payout

Figure 44 shows our revised EBIT numbers for Innogy versus our previous estimates. Our 2017 number is unchanged, but our estimates over 2018-20 are modestly lower owing to the slightly more conservative assumptions we are now making in the Network Business.

FIGURE 44

## Changes to our EBIT forecasts for Innogy

| EBIT (€m) | 2017A | 2018E | 2019E | 2020E |
|-----------|-------|-------|-------|-------|
| Previous  | 2,907 | 3,077 | 3,124 | 3,189 |
| New       | 2,907 | 3,027 | 3,042 | 3,084 |
| Change    | 0.0%  | -1.6% | -2.6% | -3.3% |

Source: Barclays Research estimates

Figure 45 then sets out our revised estimates for Innogy's EPS and DPS over 2017-20. Our EPS estimates are only very slightly lower, as on our revised numbers lower net-interest expenses basically offset our modestly lower projections for group EBIT. Meanwhile, our dividend forecasts out to 2020 are essentially unchanged.

FIGURE 45

## Changes to our EPS and DPS forecasts for Innogy

| EPS, €/share | 2017A | 2018E | 2019E | 2020E |
|--------------|-------|-------|-------|-------|
| Previous     | 2.19  | 2.41  | 2.53  | 2.65  |
| New          | 2.28  | 2.43  | 2.49  | 2.61  |
| Change       | -1.1% | 0.3%  | -1.6% | -1.5% |
| DPS, €/share | 2017A | 2018E | 2019E | 2020E |
| Previous     | 1.70  | 1.81  | 1.89  | 1.98  |
| New          | 1.71  | 1.82  | 1.87  | 1.96  |
| Change       | 0.5%  | 0.5%  | -1.0% | -1.0% |
| Payout ratio | 75%   | 75%   | 75%   | 75%   |

Source: Barclays Research estimates

Finally, Innogy's ND/EBITDA ratio now falls slightly more slowly than under our previous projections, but despite higher year-end 2017 net debt than we were previously assuming, and slightly higher capex numbers for Renewables, leverage remains comfortably within Innogy's targeted range of 3.5x-4x over 2017-18, and then drops below this over 2019-20.

FIGURE 46

**Changes to our ND/EBITDA ratio forecasts for Innogy**

| ND/EBITDA  | 2017A       | 2018E       | 2019E       | 2020E       |
|------------|-------------|-------------|-------------|-------------|
| Previous   | 3.6x        | 3.4x        | 3.2x        | 2.9x        |
| <b>New</b> | <b>3.7x</b> | <b>3.6x</b> | <b>3.5x</b> | <b>3.3x</b> |

Source: Barclays Research estimates

Innogy is currently rated BBB- with a 'positive' outlook by Standard & Poor's, and BBB+ with a 'stable' outlook by Fitch.

## Financials

FIGURE 47

### Divisional EBITDA

| €m                       | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| Energy Networks          | 2,622        | 2,841        | 2,923        | 2,927        | 2,994        |
| Retail                   | 1,057        | 1,028        | 1,055        | 1,072        | 1,076        |
| Renewables               | 671          | 674          | 721          | 747          | 754          |
| Corporate Function/Other | (147)        | (147)        | (146)        | (146)        | (146)        |
| <b>Group EBITDA</b>      | <b>4,203</b> | <b>4,397</b> | <b>4,553</b> | <b>4,599</b> | <b>4,679</b> |

Source: Company information, Barclays Research estimates

FIGURE 48

### Divisional EBIT

| €m                       | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| Energy Networks          | 1,708        | 1,893        | 1,915        | 1,879        | 1,904        |
| Retail                   | 844          | 850          | 896          | 914          | 919          |
| Renewables               | 359          | 340          | 390          | 423          | 436          |
| Corporate Function/Other | (176)        | (176)        | (175)        | (175)        | (175)        |
| <b>Group EBIT</b>        | <b>2,735</b> | <b>2,907</b> | <b>3,027</b> | <b>3,042</b> | <b>3,084</b> |

Source: Company information, Barclays Research estimates

FIGURE 49

### Financial Statements (adjusted)

| €m                                | 2015         | 2016         | 2017E        | 2018E        | 2019E        | 2020E        |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Operating Result (EBIT)</b>    | <b>3,050</b> | <b>2,735</b> | <b>2,907</b> | <b>3,027</b> | <b>3,042</b> | <b>3,084</b> |
| -Financial Result (adj)           | (302)        | (874)        | (750)        | (781)        | (742)        | (706)        |
| <b>Profit before tax adjusted</b> | <b>2,748</b> | <b>1,861</b> | <b>2,157</b> | <b>2,245</b> | <b>2,300</b> | <b>2,378</b> |
| -Taxes on Income                  | (860)        | (465)        | (586)        | (579)        | (595)        | (604)        |
| -Minority Interest                | (325)        | (273)        | (305)        | (318)        | (319)        | (324)        |
| <b>Adjusted Net Income</b>        | <b>1,563</b> | <b>1,123</b> | <b>1,265</b> | <b>1,349</b> | <b>1,385</b> | <b>1,450</b> |
| Adjusted EPS                      | 3.13         | 2.02         | 2.28         | 2.43         | 2.49         | 2.61         |
| DPS                               | n/a          | 1.60         | 1.71         | 1.82         | 1.87         | 1.96         |
| Payout ratio                      | n/a          | 79%          | 75%          | 75%          | 75%          | 75%          |

Source: Company information, Barclays Research estimates

FIGURE 50

### Innogy Leverage

| €m                 | 2015A   | 2016A    | 2017E    | 2018E    | 2019E    | 2020E    |
|--------------------|---------|----------|----------|----------|----------|----------|
| Economic Net Debt  | (6,673) | (15,748) | (16,454) | (16,424) | (16,136) | (15,603) |
| Net debt / EBITDA  | 1.5x    | 3.7x     | 3.7x     | 3.6x     | 3.5x     | 3.3x     |
| Financial Net Debt | (2,880) | (11,555) | (12,061) | (11,837) | (11,325) | (10,532) |
| Fin ND/EBITDA      | 0.6x    | 2.7x     | 2.7x     | 2.6x     | 2.5x     | 2.3x     |

Source: Company information, Barclays Research estimates.

FIGURE 51

**Cash Flow Statement**

| €m                                         | 2015A          | 2016A          | 2017E          | 2018E          | 2019E          | 2020E          |
|--------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Income</b>                              | <b>1,938</b>   | <b>1,786</b>   | <b>1,151</b>   | <b>1,240</b>   | <b>1,286</b>   | <b>1,302</b>   |
| + Income Tax                               | -              | -              | -              | -              | -              | -              |
| + Net Finance Costs                        | 860            | 415            | 586            | 579            | 595            | 604            |
| - Share of Associates                      | 302            | 789            | 775            | 801            | 752            | 761            |
| + D&A and Impairment Losses                | (493)          | (449)          | (395)          | (407)          | (408)          | (417)          |
| <b>EBITDA (unadjusted)</b>                 | <b>1,634</b>   | <b>1,769</b>   | <b>1,490</b>   | <b>1,526</b>   | <b>1,558</b>   | <b>1,594</b>   |
| Net interest paid                          | (302)          | (622)          | (604)          | (607)          | (528)          | (501)          |
| Tax payments                               | (860)          | (415)          | (586)          | (579)          | (595)          | (604)          |
| Dividends received                         | 898            | 796            | 855            | 880            | 883            | 903            |
| Amortisation of Step up/ Carve out*        | -              | (85)           | (50)           | (50)           | (50)           | (25)           |
| +/- Changes in Provisions                  | (234)          | (4)            | 171            | 194            | 224            | 260            |
| +/- Changes in Def Taxes                   | (77)           | (648)          | (333)          | (167)          | (83)           | (42)           |
| +/- Gains/Losses of disposal of assets     | (623)          | (215)          | -              | -              | -              | -              |
| +/- Changes in Working Capital             | 210            | (278)          | (342)          | 97             | 117            | 115            |
| +/- Changes in Other Oper. Receiv.         | -              | 148            | 4              | 4              | 4              | 4              |
| +/- Other Non-Cash Income/Expenses         | (498)          | (313)          | -              | -              | -              | -              |
| <b>Cash Flow from Operating Activities</b> | <b>2,755</b>   | <b>2,674</b>   | <b>2,720</b>   | <b>3,513</b>   | <b>3,753</b>   | <b>3,954</b>   |
| - Capital Expenditure                      | (1,996)        | (1,636)        | (2,203)        | (2,236)        | (2,126)        | (2,017)        |
| +/- (Acq.)/Disposals                       | 239            | (312)          | -              | -              | -              | -              |
| +/- Changes in Int. Bearing Receiv.        | 655            | 655            | 7,166          | -              | -              | -              |
| <b>Net Cash from Investing Activities</b>  | <b>(1,102)</b> | <b>5,218</b>   | <b>(2,203)</b> | <b>(2,236)</b> | <b>(2,126)</b> | <b>(2,017)</b> |
| +/- Change in Equity                       | (178)          | (7,199)        | -              | -              | -              | -              |
| - Dividends Paid to Shareh./Minor.         | (1,017)        | (979)          | (989)          | (1,053)        | (1,116)        | (1,144)        |
| +/- Change in Financial Liabilities        | (398)          | 1,136          | 472            | (224)          | (512)          | (793)          |
| <b>Net Cash from Financing Activities</b>  | <b>(1,593)</b> | <b>(7,042)</b> | <b>(517)</b>   | <b>(1,277)</b> | <b>(1,628)</b> | <b>(1,937)</b> |
| <b>Net (Decrease)/Increase in Cash</b>     | <b>60</b>      | <b>850</b>     | <b>-</b>       | <b>-</b>       | <b>-</b>       | <b>-</b>       |
| <b>CFOA/EBITDA</b>                         | <b>61%</b>     | <b>64%</b>     | <b>62%</b>     | <b>77%</b>     | <b>82%</b>     | <b>85%</b>     |
| <b>FCF</b>                                 | <b>759</b>     | <b>1,038</b>   | <b>517</b>     | <b>1,277</b>   | <b>1,628</b>   | <b>1,937</b>   |

Source: Company information, Barclays Research estimates.\*Step up of nominal value to market value of bonds transferred to Innogy. In 2016, Innogy booked a €158m of transaction related one-offs owing to early redemption of inter-company loans and amortisation of balance sheet step-up.

FIGURE 52

**Balance Sheet**

| €m                                   | 2014A           | 2015A           | 2016A           | 2017E           | 2018E           | 2019E           | 2020E           |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PPE                                  | 17,309          | 18,308          | 17,954          | 18,366          | 18,795          | 19,083          | 19,234          |
| Intangible Assets                    | 11,695          | 12,178          | 11,709          | 11,759          | 11,809          | 11,859          | 11,884          |
| Companies a/c for under Equ. Method  | 2,379           | 2,137           | 2,010           | 2,256           | 1,799           | 1,322           | 840             |
| Other Financial Assets               | 510             | 555             | 703             | 707             | 710             | 714             | 717             |
| Non current securities               | -               | -               | -               | -               | -               | -               | -               |
| Financial Receivables and Other      | 1,951           | 3,085           | 3,085           | 979             | 979             | 979             | 979             |
| Operating receivables&other          | -               | -               | -               | -               | -               | -               | -               |
| Deferred Tax Assets& inc. Tax assets | 1,805           | 1,972           | 2,056           | 2,638           | 2,971           | 3,138           | 3,221           |
| <b>Total Non-Current Assets</b>      | <b>35,649</b>   | <b>38,235</b>   | <b>36,239</b>   | <b>36,580</b>   | <b>36,753</b>   | <b>36,696</b>   | <b>36,424</b>   |
| Inventories                          | 491             | 380             | 391             | 424             | 425             | 425             | 425             |
| Trade Receivables                    | 5,708           | 4,551           | 4,022           | 4,188           | 4,086           | 3,972           | 3,858           |
| Income tax assets                    | 164             | 121             | 151             | 147             | 144             | 140             | 137             |
| Financial Receivables                | 11,794          | 12,241          | 2,020           | 2,020           | 2,020           | 2,020           | 2,020           |
| Assets held for sale                 | 310             | -               | -               | -               | -               | -               | -               |
| Liquid funds (excl Cash)             | 1,913           | 1,894           | 2,688           | 2,688           | 2,688           | 2,688           | 2,688           |
| Cash and Cash Equivalents            | 475             | 550             | 1,379           | 1,379           | 1,379           | 1,379           | 1,379           |
| <b>Total Current Assets</b>          | <b>20,855</b>   | <b>19,737</b>   | <b>10,651</b>   | <b>10,847</b>   | <b>10,741</b>   | <b>10,624</b>   | <b>10,507</b>   |
| <b>Total Assets</b>                  | <b>56,504</b>   | <b>57,972</b>   | <b>46,890</b>   | <b>47,427</b>   | <b>47,494</b>   | <b>47,320</b>   | <b>46,931</b>   |
| Acc. Other Comprehensive Income      | 16,937          | 16,649          | 8,931           | 8,890           | 8,867           | 8,826           | 9,021           |
| Minority Interests                   | 1,461           | 1,811           | 1,736           | 1,932           | 2,139           | 2,349           | 2,568           |
| <b>Equity</b>                        | <b>18,398</b>   | <b>18,460</b>   | <b>10,667</b>   | <b>10,853</b>   | <b>11,098</b>   | <b>11,347</b>   | <b>11,589</b>   |
| Financial Liabilities                | (11,786)        | (15,291)        | (16,556)        | (16,345)        | (15,783)        | (14,911)        | (13,759)        |
| Provisions                           | (6,482)         | (5,077)         | (5,518)         | (5,689)         | (5,883)         | (6,107)         | (6,367)         |
| Deferred Tax Liabilities             | (772)           | (904)           | (521)           | (521)           | (521)           | (521)           | (521)           |
| Operating Liabilities                | (2,274)         | (2,428)         | (1,847)         | (1,847)         | (1,847)         | (1,847)         | (1,847)         |
| <b>Total Non-Current Liabilities</b> | <b>(21,314)</b> | <b>(23,700)</b> | <b>(24,442)</b> | <b>(24,401)</b> | <b>(24,034)</b> | <b>(23,386)</b> | <b>(22,493)</b> |
| Financial Liabilities                | (4,687)         | (3,684)         | (665)           | (665)           | (665)           | (665)           | (665)           |
| Trade Payables                       | (4,906)         | (4,553)         | (4,302)         | (4,523)         | (4,518)         | (4,519)         | (4,521)         |
| Other Operating Liabilities          | (194)           | (199)           | (53)            | (224)           | (418)           | (642)           | (902)           |
| Provisions                           | (2,613)         | (2,545)         | (2,454)         | (2,454)         | (2,454)         | (2,454)         | (2,454)         |
| Other Current Liabilities            | (4,392)         | (4,831)         | (4,307)         | (4,307)         | (4,307)         | (4,307)         | (4,307)         |
| <b>Total Current Liabilities</b>     | <b>(16,792)</b> | <b>(15,812)</b> | <b>(11,781)</b> | <b>(12,173)</b> | <b>(12,362)</b> | <b>(12,587)</b> | <b>(12,848)</b> |
| <b>Total Equity and Liabilities</b>  | <b>56,504</b>   | <b>57,972</b>   | <b>46,890</b>   | <b>47,427</b>   | <b>47,494</b>   | <b>47,320</b>   | <b>46,931</b>   |

Source: Company information, Barclays Research estimates

## Valuation Methodology and Risks

## European Utilities

## E.ON (EOAN GY / EONGn.DE)

**Valuation Methodology:** We value E.ON on a SOTP basis. Our SOTP is DCF-based for Customer Solutions, Renewables and Preussen Elektra (German Nuclear). We value Energy Networks on a RAB basis, including the NPV of future outperformance expectations as well as a terminal premium to RAB. In recognition of the final nuclear deal with the German government, we deconsolidate €8bn of waste-and-storage provisions from 2017 onwards. We include E.ON's current 46.65% stake in Uniper at our fair value. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year. We mark-to market all wholesale commodity prices for their length of their liquid forward curves. Post this mark-to-market period for German power we assume a €5/MWh long-term baseload clean dark spread (equals historical avege), with a modest uplift to €7/MWh in 2021 when the nuclear phase out in Germany should tighten supply.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** E.ON is exposed to regulatory and political intervention/risks, economic factors, interest rates, corporate activity, and competition. Our downside risk includes headwinds in UK and German retail as well as downside risk on the GBP/EUR exchange rate. Our upside risk takes into account a potential bid premium for the Uniper stake and upside on GBP/EUR.

## Innogy SE (IGY GY / IGY.DE)

**Valuation Methodology:** We value Innogy on a SOTP basis. Our SOTP is DCF-based for Retail and Renewables. We value Energy Networks on a RAB basis, including the NPV of future outperformance expectations as well as a terminal premium to RAB. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** Innogy is exposed to interest rates, regulatory and political intervention/risks, economic factors, corporate activity, and competition. The main downside risks to our valuation are a further depreciation of sterling versus the Euro, and a slower rebound in the UK retail business than we are assuming. The main upside risk is a faster rebound in the UK business than we are assuming.

## RWE (RWE GY / RWE.G.DE)

**Valuation Methodology:** We value RWE on a SOTP basis. Our valuation is DCF based for European Generation assets with an asset-related WACC used depending on asset type and region. Trading is valued on an EV/EBITDA multiple basis, for Innogy we are using our own fair-value assumption. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year. We mark to market all wholesale commodity prices for the length of their liquid forward curves. Post this period we assume a clean-dark spread recovery in Germany to €5/MWh in 2020 and €7/MWh in 2021 and beyond as we see the German power-market tightening when nuclear capacity comes offline and announced coal closures materialize (>8GW). For capacity payments in the UK we assume £6.95/kW for 2017/18. For the years 2018/19 and 2019/20 prices are determined at £19.4/kW and £18/kW, respectively. The 8 December 2016 auction determined a £22.5/kW strike price for 2020/21. For 2021/2022 and 2022/23 we assume £30/kW and £25/kW from 2023/24 onwards.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** RWE is exposed to wholesale energy commodity prices, interest rates, regulatory and political intervention/risks, economic factors, corporate activity & competition. Our downside case takes into account the risk of higher carbon prices and lower coal prices than we assume in our base case. Our upside case takes into account higher coal and power prices than we assume in our base case.

## Uniper SE (UN01 GY / UN01.DE)

**Valuation Methodology:** We value Uniper on a SOTP basis. Our valuation is DCF based for European Generation assets with an asset-related WACC used depending on asset type and region. Global Commodities is valued on an EV/EBITDA multiple basis, using different multiples for Gas Midstream, pipeline participations, and power trading. Uniper's International business consists mainly of Unipro, a listed entity for which' valuation we are using the current market capitalisation of 100% (Uniper holds a 83.7% stake in the business, accounted for in minorities) with its Brazilian business valued at EV/EBITDA multiples. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year. We mark to market all wholesale commodity prices for the length of their liquid forward curves. Post this period we assume a modest clean-dark-spread recovery in Germany to €5/MWh in 2020 and €7/MWh in 2021 and beyond as we see the German power market tightening when nuclear capacity comes offline and announced coal closures materialize (>8GW). For capacity payments in the UK we assume £6.95/kW for 2017/18. For the years 2018/19 and 2019/20 prices are determined at £19.4/kW and £18/kW, respectively. The latest 8 December 2016 auction determined a £22.5/kW strike price for 2020/21. For 2021/2022 and 2022/23 we assume £30/kW and £25/kW from 2023/24 onwards.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** Uniper is exposed to wholesale energy commodity prices, interest rates, regulatory and political intervention/risks, economic factors, corporate activity, and competition. Our downside case takes into account lower long-term coal and power prices than we assume in our base case, and our upside case takes into account higher carbon, coal, and power prices than we assume in our base case.

Source: Barclays Research.

## ANALYST(S) CERTIFICATION(S):

I, Mark Lewis, hereby certify (1) that the views expressed in this research report accurately reflect my personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.</p>

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### Primary Stocks (Ticker, Date, Price)

E.ON (EONGn.DE, 24-Aug-2017, EUR 9.43), Overweight/Neutral, A/CD/D/E/J/K/L/M/N

Other Material Conflicts: The CEO of E.ON UK is the brother of the lead analyst covering this issuer

Innogy SE (IGY.DE, 24-Aug-2017, EUR 37.41), Underweight/Neutral, CD/D/E/J/K/L/M/N

RWE (RWEg.DE, 24-Aug-2017, EUR 20.80), Equal Weight/Neutral, CD/D/E/J/K/L/M/N

Uniper SE (UN01.DE, 24-Aug-2017, EUR 20.88), Equal Weight/Neutral, A/CD/D/E/J/K/L/M/N

### Materially Mentioned Stocks (Ticker, Date, Price)

Engie (ENGIE.PA, 24-Aug-2017, EUR 14.50), Equal Weight/Neutral, CD/D/E/FA/J/K/L/M/N

Prices are sourced from Thomson Reuters as of the last available closing price in the relevant trading market.

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In addition to the stock rating, we provide industry views which rate the outlook for the industry coverage universe as Positive, Neutral or Negative (see definitions below). A rating system using terms such as buy, hold and sell is not the equivalent of our rating system. Investors should carefully read the entire research report including the definitions of all ratings and not infer its contents from ratings alone.

### Stock Rating

**Overweight** - The stock is expected to outperform the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

**Equal Weight** - The stock is expected to perform in line with the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

**Underweight** - The stock is expected to underperform the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

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**Positive** - industry coverage universe fundamentals/valuations are improving.

**Neutral** - industry coverage universe fundamentals/valuations are steady, neither improving nor deteriorating.

**Negative** - industry coverage universe fundamentals/valuations are deteriorating.

Below is the list of companies that constitute the "industry coverage universe":

### European Utilities

**IMPORTANT DISCLOSURES CONTINUED</P>**

|                                |                         |                          |
|--------------------------------|-------------------------|--------------------------|
| Centrica Plc. (CNA.L)          | Drax Group Plc. (DRX.L) | E.ON (EONGn.DE)          |
| Electricite de France (EDF.PA) | Enagas SA (ENAG.MC)     | Enel SpA (ENEL.MI)       |
| Engie (ENGIE.PA)               | Gas Natural (GAS.MC)    | Iberdrola (IBE.MC)       |
| Innogy SE (IGY.DE)             | Italgas (IG.MI)         | National Grid Plc (NG.L) |
| Pennon (PNN.L)                 | Red Electrica (REE.MC)  | RWE (RWE.G.DE)           |
| Severn Trent (SVT.L)           | Snam (SRG.MI)           | SSE Plc. (SSE.L)         |
| Suez (SEVI.PA)                 | Terna (TRN.MI)          | Uniper SE (UN01.DE)      |
| United Utilities (UU.L)        | Veolia (VIE.PA)         |                          |

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41% have been assigned an Equal Weight rating which, for purposes of mandatory regulatory disclosures, is classified as a Hold rating; 53% of companies with this rating are investment banking clients of the Firm; 73% of the issuers with this rating have received financial services from the Firm.

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## IMPORTANT DISCLOSURES CONTINUED

**E.ON (EOAN GY / EONGn.DE)****EUR 9.43 (24-Aug-2017)**

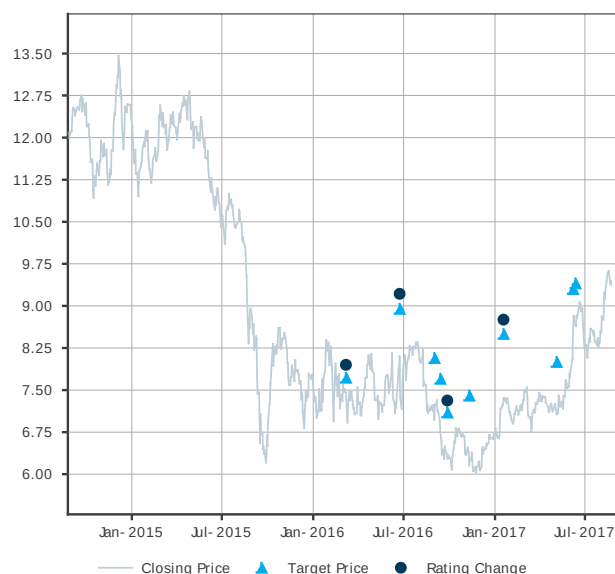
Stock Rating

**OVERWEIGHT**

Industry View

**NEUTRAL****Rating and Price Target Chart - EUR (as of 24-Aug-2017)**

Currency=EUR



| Publication Date | Closing Price | Rating       | Adjusted Price Target |
|------------------|---------------|--------------|-----------------------|
| 12-Jun-2017      | 8.66          |              | 9.40                  |
| 07-Jun-2017      | 8.47          |              | 9.30                  |
| 05-May-2017      | 7.07          |              | 8.00                  |
| 18-Jan-2017      | 7.35          | Overweight   | 8.50                  |
| 10-Nov-2016      | 6.16          |              | 7.40                  |
| 27-Sep-2016      | 6.30          | Equal Weight | 7.10                  |
| 13-Sep-2016      | 6.75          |              | 7.70                  |
| 01-Sep-2016      | 7.02          |              | 8.07                  |
| 23-Jun-2016      | 8.16          | Overweight   | 8.95                  |
| 07-Mar-2016      | 7.51          | Equal Weight | 7.72                  |

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** E.ON is exposed to regulatory and political intervention/risks, economic factors, interest rates, corporate activity, and competition. Our downside risk includes headwinds in UK and German retail as well as downside risk on the GBP/EUR exchange rate. Our upside risk takes into account a potential bid premium for the Uniper stake and upside on GBP/EUR.

**Other Material Conflicts:** The CEO of E.ON UK is the brother of the lead analyst covering this issuer

## IMPORTANT DISCLOSURES CONTINUED

## Engie (ENGI FP / ENGIE.PA)

EUR 14.50 (24-Aug-2017)

Stock Rating

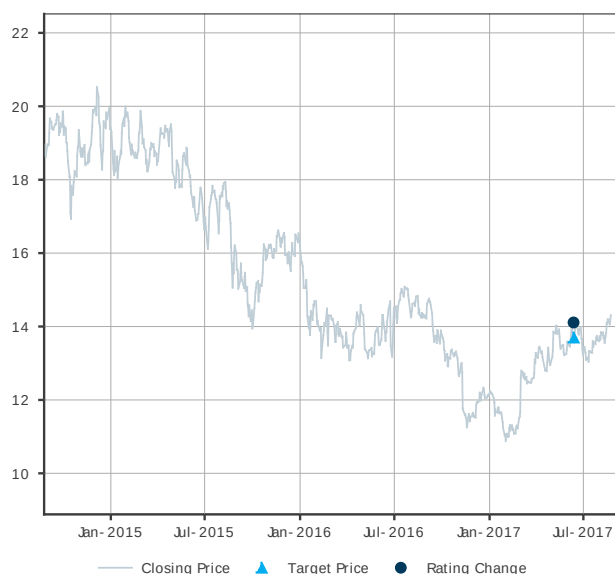
Industry View

EQUAL WEIGHT

NEUTRAL

## Rating and Price Target Chart - EUR (as of 24-Aug-2017)

Currency=EUR



| Publication Date | Closing Price | Rating       | Adjusted Price Target |
|------------------|---------------|--------------|-----------------------|
| 12-Jun-2017      | 13.66         | Equal Weight | 13.70                 |

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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**Valuation Methodology:** We value Engie using a SoTP methodology within which we combine DCF's based valuations (to 2030) for the North America, Latin America, Africa-Asia, Benelux, France, Europe (ex-France & Benelux), GEM & LNG and Others divisions with a RAB based valuation for the infrastructure division. We use the company 7.6% WACC for most divisional DCFs with the exception of North America where we use a lower 7.3% WACC (lower risk business) and of Africa-Asia where we use an 8.1% WACC. We use a 1% LT growth rate for most division with the exception of the GEM & LNG and Others divisions where we see lower LT growth at 0.5%. We are already reflecting the disposal of the E&P business in our valuation & forecasts. We use the forward curve to forecasts future power prices and grow the outer years by inflation.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** Engie is in the middle of a three year transformation plan that will see the company moving from an energy commodities-led business model into a renewables/regulated/customers focus business. Despite the fact that the disposal plan is already well on its way, execution risks remain especially in terms of future growth and assets allocation. Recent M&A speculations also highlight, in our view, the challenges to grow and gain critical size in certain chosen business areas and therefore could lead to possible significant acquisition risks. Exposure to regulated activities is also a factor of potential risk as political intervention and/or regulatory changes can materially impact allowed returns for these assets.

## IMPORTANT DISCLOSURES CONTINUED

## Innogy SE (IGY GY / IGY.DE)

EUR 37.41 (24-Aug-2017)

Stock Rating

UNDERWEIGHT

Industry View

NEUTRAL

## Rating and Price Target Chart - EUR (as of 24-Aug-2017)

Currency=EUR



| Publication Date | Closing Price | Rating | Adjusted Price Target |
|------------------|---------------|--------|-----------------------|
|------------------|---------------|--------|-----------------------|

|             |       |             |  |
|-------------|-------|-------------|--|
| 12-Jun-2017 | 35.14 | Underweight |  |
|-------------|-------|-------------|--|

|             |       |              |       |
|-------------|-------|--------------|-------|
| 16-Nov-2016 | 31.98 | Equal Weight | 33.00 |
|-------------|-------|--------------|-------|

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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**Valuation Methodology:** We value Innogy on a SOTP basis. Our SOTP is DCF-based for Retail and Renewables. We value Energy Networks on a RAB basis, including the NPV of future outperformance expectations as well as a terminal premium to RAB. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** Innogy is exposed to interest rates, regulatory and political intervention/risks, economic factors, corporate activity, and competition. The main downside risks to our valuation are a further depreciation of sterling versus the Euro, and a slower rebound in the UK retail business than we are assuming. The main upside risk is a faster rebound in the UK business than we are assuming.

## IMPORTANT DISCLOSURES CONTINUED

## RWE (RWE GY / RWE.G.DE)

EUR 20.80 (24-Aug-2017)

Stock Rating

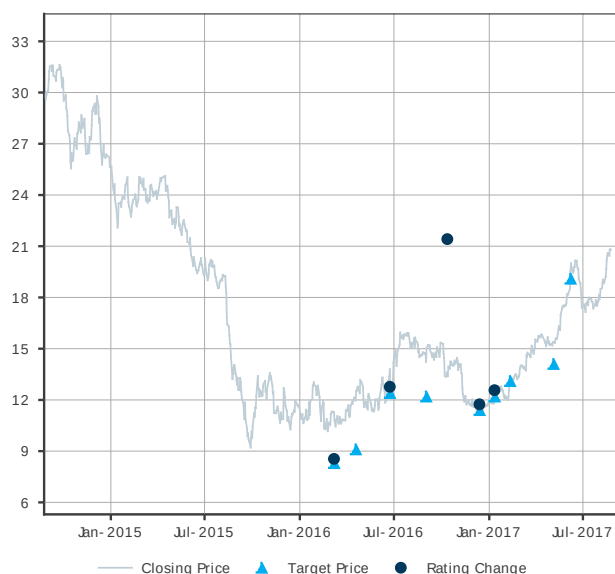
Industry View

EQUAL WEIGHT

NEUTRAL

## Rating and Price Target Chart - EUR (as of 24-Aug-2017)

Currency=EUR



| Publication Date | Closing Price | Rating           | Adjusted Price Target |
|------------------|---------------|------------------|-----------------------|
| 07-Jun-2017      | 19.55         |                  | 19.10                 |
| 05-May-2017      | 15.38         |                  | 14.10                 |
| 10-Feb-2017      | 12.90         |                  | 13.10                 |
| 11-Jan-2017      | 12.23         | Equal Weight     | 12.20                 |
| 13-Dec-2016      | 11.38         | Underweight      | 11.40                 |
| 12-Oct-2016      | 13.59         | Rating Suspended |                       |
| 01-Sep-2016      | 14.23         |                  | 12.20                 |
| 23-Jun-2016      | 13.80         | Equal Weight     | 12.40                 |
| 18-Apr-2016      | 11.97         |                  | 9.10                  |
| 07-Mar-2016      | 11.29         | Underweight      | 8.30                  |

Source: Thomson Reuters, Barclays Research

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Source: IDC, Barclays Research

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**Valuation Methodology:** We value RWE on a SOTP basis. Our valuation is DCF based for European Generation assets with an asset-related WACC used depending on asset type and region. Trading is valued on an EV/EBITDA multiple basis, for Innogy we are using our own fair-value assumption. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year. We mark to market all wholesale commodity prices for the length of their liquid forward curves. Post this period we assume a clean-dark spread recovery in Germany to €5/MWh in 2020 and €7/MWh in 2021 and beyond as we see the German power-market tightening when nuclear capacity comes offline and announced coal closures materialize (>8GW). For capacity payments in the UK we assume £6.95/kW for 2017/18. For the years 2018/19 and 2019/20 prices are determined at £19.4/kW and £18/kW, respectively. The 8 December 2016 auction determined a £22.5/kW strike price for 2020/21. For 2021/2022 and 2022/23 we assume £30/kW and £25/kW from 2023/24 onwards.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** RWE is exposed to wholesale energy commodity prices, interest rates, regulatory and political intervention/risks, economic factors, corporate activity & competition. Our downside case takes into account the risk of higher carbon prices and lower coal prices than we assume in our base case. Our upside case takes into account higher coal and power prices than we assume in our base case.

## IMPORTANT DISCLOSURES CONTINUED

## Uniper SE (UN01 GY / UN01.DE)

EUR 20.88 (24-Aug-2017)

Stock Rating

Industry View

EQUAL WEIGHT

NEUTRAL

## Rating and Price Target Chart - EUR (as of 24-Aug-2017)

Currency=EUR



| Publication Date | Closing Price | Rating       | Adjusted Price Target |
|------------------|---------------|--------------|-----------------------|
| 12-Jun-2017      | 17.00         |              | 17.00                 |
| 05-May-2017      | 16.17         |              | 15.50                 |
| 18-Jan-2017      | 14.05         | Equal Weight | 14.30                 |
| 01-Dec-2016      | 11.86         |              | 12.80                 |
| 20-Sep-2016      | 10.29         | Overweight   | 11.60                 |

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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**N:** Uniper SE is, or during the past 12 months has been, a non-investment banking client (non-securities related services) of Barclays Bank PLC and/or an affiliate.

**Valuation Methodology:** We value Uniper on a SOTP basis. Our valuation is DCF based for European Generation assets with an asset-related WACC used depending on asset type and region. Global Commodities is valued on an EV/EBITDA multiple basis, using different multiples for Gas Midstream, pipeline participations, and power trading. Uniper's International business consists mainly of Unipro, a listed entity for which' valuation we are using the current market capitalisation of 100% (Uniper holds a 83.7% stake in the business, accounted for in minorities) with its Brazilian business valued at EV/EBITDA multiples. For foreign currencies we use the average YTD rate weighted by the spot rate for the remainder of the year. We mark to market all wholesale commodity prices for the length of their liquid forward curves. Post this period we assume a modest clean-dark-spread recovery in Germany to €5/MWh in 2020 and €7/MWh in 2021 and beyond as we see the German power market tightening when nuclear capacity comes offline and announced coal closures materialize (>8GW). For capacity payments in the UK we assume £6.95/kW for 2017/18. For the years 2018/19 and 2019/20 prices are determined at £19.4/kW and £18/kW, respectively. The latest 8 December 2016 auction determined a £22.5/kW strike price for 2020/21. For 2021/2022 and 2022/23 we assume £30/kW and £25/kW from 2023/24 onwards.

**Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target:** Uniper is exposed to wholesale energy commodity prices, interest rates, regulatory and political intervention/risks, economic factors, corporate activity, and competition. Our downside case takes into account lower long-term coal and power prices than we assume in our base case, and our upside case takes into account higher carbon, coal, and power prices than we assume in our base case.

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