MOODY'S
INVESTORS SERVICE

ANALYSIS

RWE AG

Essen, Germany

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This Analysis provides an in-depth discussion of credit rating(s) for RWE AG and should be read in conjunction with Moody's most recent Credit Opinion and rating information available on Moody's website.

Corporate Profile

A leading European utility with a diversified asset base

Headquartered in Essen, Germany, RWE AG ("RWE/the Group", rated A3, negative outlook) remains one of the larger listed European utilities notwithstanding a steep decline in its share price over the last year, with a market capitalisation of approximately €15 billion in September 2011. It is the largest electricity generator and the third largest gas supplier in Germany, an important player in the UK and Dutch energy markets, and has growing electricity and gas interests in Central and Eastern Europe. RWE is organised into seven business units, four of which represent national markets, and three of which incorporate group wide activities.

- Germany, which consists of 'Power Generation' and 'Sales and Distribution Networks'. It includes RWE Power, which is the leading electricity generator in Germany, accounting for about one quarter of domestic electricity production, and RWE Deutschland which includes the Group's German retail business and distribution assets.
- Netherlands/Belgium, which includes the conventional generation and supply activities of Essent, the integrated Dutch energy utility acquired in September 2009.
- United Kingdom, which through RWE npower includes the generation and supply activities in the UK with the exception of renewables which are managed by RWE Innogy.
- Central Eastern and South Eastern Europe, comprising companies in Poland (electricity supply and distribution), Hungary (lignite-based generation through its subsidiary Matra, through to distribution and supply), the Czech Republic (mainly gas supply, transmission and distribution), Slovakia (distribution network ownership and supply), and Turkey, where RWE is building a gas-fired power station with a partner.
- Renewables, which pools the vast majority of the Group's renewable energy activities through RWE Innogy, which includes the onshore wind activities acquired with Essent. The Group has an installed capacity of 2.3GW, and plans to increase assets in operation or under construction to 4.5GW by 2014.
- Upstream Gas & Oil. RWE Dea is the group's oil & gas producer focused on Europe and North Africa.

- Trading/Gas Midstream. In addition to the gas midstream and trading activities of RWE Supply & Trading and Essent, this includes sales to major German industrial and corporate customers. It combines the gas purchasing activities for all Group companies with the energy trading business for electricity, gas, hard coal, oil and CO_2. It enters into purchasing agreements with third parties, including gas procurement for RWE Power's power plants and the group's supply operations, as well as transport, transit and storage contracts for non-regulated gas activities.

FIGURE 1
Divisional Analysis: 1H2011

€ Million	Revenues 1H2010	Revenues 1H2011	%Change (2010-11)	Operating Result 1H2010	Operating Result 1H2011	%Change (2010-11)
Power Generation	*502*	*558*	*11.2%*	*2,229*	*1,268*	*-43.1%*
Sales & Distrbn Networks	*9,498*	*10,209*	*7.5%*	*985*	*943*	*-4.3%*
Subtotal Germany	10,000	10,767	7.7%	3,214	2,211	-31.2%
Netherlands/Belgium	3,485	3,253	-6.7%	345	187	-45.8%
United Kingdom	3,998	3,846	-3.8%	154	352	128.6%
CE & South Eastern Europe	2,727	2,633	-3.4%	722	691	-4.3%
Renewables	177	224	26.6%	26	89	242.3%
Upstream Gas & Oil	680	886	30.3%	192	334	74.0%
Trading/Gas Midstream	3,942	3,515	-10.8%	278	-598	-315.1%
Other, consolidation	2,345	2,333	-0.5%	25	75	200.0%
Totals	**27,354**	**27,457**	**0.4%**	**4,956**	**3,341**	**-32.6%**

Management Strategy

Consistent strategic emphasis ….

The core of RWE's strategy, which has for some time been driven by its need to improve the efficiency and reduce the CO_2 intensity of its generation fleet, remains in place – and is designed to make the Group "more sustainable, more international and more robust'. As such it remains characterised by the following guidelines and priorities:

- Maintaining its regional focus in Northwestern, Central and Eastern and Southeastern Europe, as well as Turkey;
- Continuing its strategy for reducing CO_2 intensity. Although this has experienced a considerable set-back from accelerated nuclear closure in Germany, the efficiency and relative modernity of its fleet will have been substantially upgraded upon completion of the huge investment in conventional generation by 2014;
- Renegotiation of its long-term gas contracts with its suppliers in order to reduce exposure to the gas-to-oil spread. The MoU reached with Gazprom in July is intended to contribute to this, as well as to explore a possible strategic partnership in power generation; and
- Organic growth in renewables in and around its core markets.

…. substantially impacted by accelerated nuclear phase-out

However, in common with its domestic peers, there have been substantial changes to RWE's shorter-term priorities following the German government's reversal in July of its earlier decision to sanction life-time extensions of the country's nuclear fleet, and instead to accelerate the phase-out of nuclear power, while keeping in place the nuclear fuel rod tax. As a result eight of the country's 17 nuclear plants were shut-down permanently, and the remaining nine are to close gradually over the period to 2022. The nuclear shutdown means RWE's two oldest nuclear plants Biblis A (1,167MW) and Biblis B (1,227MW) have been closed with immediate effect. Its three other plants (in which it has majority stakes) – Gundremmingen-B (1,284MW), Gundremmingen-C (1,288) and Emsland (1,329MW) are not scheduled to close until 2017, 2021 and 2022 respectively.

This abrupt policy 'U-turn', triggered by the disaster at Fukushima earlier in the year, has far reaching implications for the structure of the German energy market which will require huge additional investment in renewables (and all that goes with it) to offset the effect of nuclear phase-out if the country is to achieve its environmental targets. It also has a substantial negative impact on the earning power of RWE, which comes at a time when cash flow generation is already experiencing pressure from other sources. RWE has therefore responded by adapting its strategy to the new direction of its core market, and with initiatives designed to secure its financial strength against the near-term pressures it is experiencing.

Negative pressures on earnings ….

RWE assessed the impact on its 1H2011 results of the policy change at €900 million, including €700 million as a result of the nuclear exit, and €200 million from the nuclear fuel tax. Over the next few years, the Group's earnings power and financial flexibility will be reduced versus earlier expectations because of the following:

» Lower nuclear output. Moody's estimates the closures of Biblis A and Biblis B will cost RWE roughly 16TWh a year in lost output. At an assumed margin of €30/MWh, cash flow foregone will be in the region of €500 million, although partly defrayed by a lower nuclear tax liability because fewer fuel rods will be used than expected.

» Cost of buying power in the market to deliver against forward sales made, although this negative effect will be progressively offset to the extent that unhedged output benefits from rising power prices.

» The expense of closing down the two reactors, which Moody's assumes at around €50 million per reactor in the early years. More generally, it seems possible that reduced maintenance/retrofit costs no longer needed may to an extent be offset by any additional costs that might be imposed on the nuclear industry in the post-Fukushima operating environment.

» Some additional provisioning for nuclear decommissioning, although most of the increase arising from the accelerated phase-out was reflected at 1H2011, when provisions for nuclear waste management were stated at €10.3 billion, up from €10 billion at end-2010.

Looking to the longer-term RWE's cash generation will be reduced by:

» the progressive substitution of high margin nuclear power output with spread generation and renewables, although this will be offset partly by the 2.1GW BoA Neurath lignite plant due to be in operation from 2011/12.

» A rising trajectory for decommissioning costs, which increase gradually from the date of closure (i) during the first five years following shut-down, not much is done as the reactor cools; (ii) during the second five years, costs rise as non-nuclear P&E is dismantled; (iii) after 10 to 15 years, costs rise further as work begins on dismantling the dome.

In Moody's view the negative impact of accelerated phase-out increased the financial risk faced by RWE, coming on top of existing pressures on earnings from reducing realised power prices and spreads, and losses on oil price-linked long-term gas contracts, and led to the rating downgrade to A3 in July 2011.

… prompt near term remedial measures

In August 2011, RWE set out its response to the financial burdens implied by the Government's policy change of direction. This is intended to maintain RWE's rating in the A range, a consistent target of the Group's financial policy, and centres on the following initiatives:

» Asset disposals. Having so far generated €1.5 billion from asset sales including 75% of Amprion, RWE has raised planned proceeds from disposals to €11 billion by 2013, from the €8 billion target set earlier in the year. In addition, it is considering options for a full or partial sale of Berliner Wasserbetriebe, RWE Dea/assets, NET4GAS (the Czech gas transmission network operator), several coal and gas-fired plants and selected sales and network activities.

» A further reduction in annual capex from 2014, to ca €4 billion.

» A further €100 million ratchet up of targeted efficiency savings to €1.5 billion by 2012, versus 2006.

» A strengthening of the equity base through a combination of issuing new shares and selling treasury shares, market conditions permitting. RWE currently holds 5.1% (28.8 million shares) of its capital as treasury stock, currently valued at approximately €700 million. Its planned equity issue could take the form either of an accelerated bookbuilding (for which it has authorisation to issue up to 10% of its capital) or a rights issue, for which it has authorisation to issue up to 20%. Further hybrid issuance is also likely by end-2012.

These initiatives should help partly offset negative pressures on earnings and reduce debt, and could, eventually, contribute to a stabilization of the outlook on RWE's A3 rating. However there remains in Moody's view considerable uncertainty around the timing and quantum of delivery of these initiatives, especially the targeted asset disposals. The negative outlook therefore continues to reflect the execution risk around the disposal programme and other remedial measures, as well as the challenges the company faces in managing the implications of the nuclear phase-out, renegotiation of its long-term gas contracts and looming CO_2 burden which in Moody's view imply uncertainty around recovery in RWE's financial strength in 2012 to a level consistent with its A3 rating – for which current Moody's guidance includes retained cash flow/net debt in the mid-teens, and funds from operations/net debt above 20%.

RWE's rating balances qualitative and quantitative factors

Moody's Rating Methodology for [Unregulated Utilities and Power Companies] published in August 2009 sets out how Moody's analyses the credit risk of unregulated utilities and arrives at their ratings. The methodology examines the core factors which Moody's considers most relevant to unregulated utilities, sets out the range of possible outcomes by factor and maps these to a rating range. Each factor is appropriately weighted and in combination contributes to the rating output by the grid.

Based upon three year historical financials, including a solid performance in 2010, the methodology grid output for RWE indicates an A2 rating. This is one notch higher than the assigned rating of A3, which also takes account of expected future financial trends and that the outlook is for cash generation to reduce and leverage profile to weaken. The rationale for scores assigned to the methodology factors is summarised and described in the grid and paragraphs below.

FIGURE 2
Rating Factors

Unregulated Utilities	Aaa	Aa	A	Baa	Ba	B	Caa
Factor 1: Market Assessment, Scale & Competitive Position (25%)							
a) Size and Scale	X						
b) Competitive Position and Market Structure		X					
Factor 2: Cash Flow Predictability of Business Model (25%)							
a) Fuel Strategy and Mix				X			
b) Degree of Integration and Hedging Strategy			X				
c) Capital Requirements and Operational Performance						X	
d) Contribution from Low/High Risk Businesses		X					
Factor 3: Financial Policy (10%)							
a) Financial Policy				X			
Factor 4: Financial Strength Metrics (40%) [1][2]							
a) (CFO Pre-W/C + Interest) / Interest Expense (3 year Avg)				5.3x			
b) (CFO Pre-W/C) / Net Debt (3 year Avg)			30%				
c) RCF / Net Debt (3 year Avg)			21%				
d) FCF / Net Debt (3 year Avg)					-1.9%		
Rating:							
a) Indicated Rating from Grid			A2				
b) Actual Rating Assigned			A3				

[1] Including standard adjustments. In addition, Moody's adjusts for one-time items.

[2] As of 12/31/2010; Source: Moody's Financial MetricsTM

FACTOR 1: Market Assessment, Scale and Competitive Position

Size and scale

Moody's considers size is an important differentiator of credit quality for unregulated European utilities, acting as it does as a proxy for the business mix and geographic diversity, flexibility and strength needed to address the challenges of commodity price volatility, security of supply, regulatory and political issues, and increasing competition which are often features of liberalising markets.

At end-June 2011, RWE had a total asset size of €88.9 billion, positioning it within the Aaa category, together with other leading European integrated utilities, such as its main domestic competitor E.ON (A2, URD), Enel of Italy (A2, stable) and Iberdrola in Spain (A3, stable).

Competitive position and market structure

In this sub-factor, we consider the strength of a utility's core generation business and measure its competitive position by examining the generator's share of annual output in its principal market and comparing it to its competitors, as well as by taking into account competitive intensity and local market conditions. RWE scores 'Aa', reflecting its position as the largest generator in Germany, where it accounted for 29% of aggregate 588TWh output in 2010. The Group generated 77.6TWh in the first half of 2011 in its core German market, 7% less than the 83.2TWh in the equivalent period in 2010 – and just under three quarters of total Group production. This was due mainly to the shut-down of Biblis because of the government's nuclear moratorium (nuclear output declined to 19.1TWh, from 22.6TWh in 2010), but also because of lower coal output in an unfavourable market environment. Looking forward, Moody's will monitor the extent to which nuclear phase-out might change RWE's competitive position within Germany, and notes that its relative positioning should be supported by the 3.6GW of new lignite and hard coal capacity scheduled to be commissioned in 2012 and 2013, and that its three leading competitors have also been affected by the nuclear phase-out.

The Aa score assigned on this sub-factor also takes account of its positions (i) in the UK where it is positioned fourth in electricity with 10% share, and where output declined a little to 14.8TWh reflecting lower coal-fired output, partially offset by Staythorpe CCGT which went online in the 2H2010; (ii) in gas supply in both Germany and the UK where it ranks third and fourth respectively; (iii) and in the Netherlands/Belgium where it has 7% market share.

FACTOR 2: Cash flow Predictability of Business Model

Fuel strategy and mix

The table below summarises RWE's generation portfolio at end-2010, with 52.2GW of total net installed capacity diversified across lignite, hard coal, nuclear, gas and renewables. RWE Power accounted for 34GW of this, the UK for 11.8GW, and the Netherlands/Belgium for 3.1GW. It also includes 2.4GW of renewables generation. Adjusting for the closure from July 2011 of Biblis' 2.4GW net capacity has the effect of reducing the share of nuclear from 18% to 12% of RWE's domestic fleet. However, Moody's continues to score the Group at 'Baa' for 'Fuel strategy and mix' reflecting that its domestic generation fleet should remain (1) broadly aligned with the merit order (its main competitors have also shut down their older nuclear power stations), although with a higher proportion of thermal assets; and (2) the most carbon-intensive in Germany with coal and lignite fired plants representing 62% of its fleet – although Moody's notes lignite's comparatively favourable supply and technological risk profile, and incorporates this within its score for sub-factor 2(b) below. The proportion of fossil-fired generation is set to rise further in the coming years as RWE's remaining nuclear assets are gradually shut-down from 2017, although this will be offset to the extent that renewables capacity rises in line with company and national targets.

In 2010 RWE's power operations emitted 164.9 (2009 149.1) million metric tons of CO_2, substantially more than domestic peers E.ON and Vattenfall, and 49.8 million tons more than the 'free' emissions allowances it was allocated. Over time, RWE's 'less CO2' strategy – thanks also to the improved efficiency of its German new build power plants - should have the effect of reducing the carbon exposure of its operations. However, its efforts in this area have been severely hampered by the government's reversal in July 2011 of nuclear lifetime extension (LTE) announced in the autumn of 2010, which is likely to exacerbate the negative impact on the Group's earnings from 2013 when NAP III will apply, and it will no longer benefit from an allocation of free CO_2 certificates.

In common with its peers, RWE is from 2011 required to pay its share of tax on nuclear fuel payable by the nuclear industry in Germany over the six years 2011-16, although following the government's decision to accelerate closure of nuclear power production in Germany the aggregate annual negative impact on the industry will be around €1.3 billion and therefore less than the €2.3 billion initially estimated.

FIGURE 3
Plant Capacity by Primary Energy Source at end-2010

MW	Germany*	Netherlands /Belgium	United Kingdom	CEE	Renewables	RWE Group
Hard Coal	9,673	885	4,575	-	10	15,143
Gas	5,086	1,927	4,525	147	44	11,729
Lignite	10,172	-	-	763	19	10,954
Nuclear	6,295	-	-	-	-	6,295
Renewable Energy	313	331	-	1	2,302	2,947
Pumped Storage, Oil, and Other	2,489	-	2,657	-	-	5,146
Total	34,028	3,143	11,757	911	2,375	52,214

*Includes 8.7 GW of contracted capacity at stations not owned by RWE, of which 6.5 GW based on Hard Coal

Degree of integration and hedging strategy

Moody's scores RWE at 'A' on the 'Degree of integration and hedging strategy' sub-factor reflecting the integration of its generation and supply activities, its substantial lignite reserves and its strategy of selling forward a substantial proportion of its power generation.

Price risk on power generation is moderated in Moody's view by RWE's downstream private and commercial customer bases of some 6.7 million accounts in Germany, 4 million in the UK and 2.3 million in the Netherlands/Belgium, which allow it to smooth its exposure to some of the volatility of wholesale markets. Intense competition has been reflected in residential and SME customer declines over the last year in the UK, and to a lesser extent in Germany. Nevertheless its sales into these segment represented 17% of output in Germany, 61% in the UK, and 93% in the Netherlands/Belgium – or roughly 32% of total in-house generation (including CEE, but excluding Renewables). Moody's also factors into its evaluation that roughly half its domestic sales are to distributors in Germany, of which a high proportion are understood to be relatively 'stickier' municipal customers.

From an upstream perspective, Moody's factors in RWE's access to very low cost lignite reserves, which eliminates fuel price exposure for about 40% of its power output in Germany. The A rating assigned for this sub-factor also reflects that its business model and hedging strategy help mitigate its risk exposures by:

» locking in generation margins in advance. For example, its 2010 'all-in' average achieved power prices were well above €60/MWh. At end-June 2011 over 80% of 2012 and 30% of 2013 power output in the German market had been sold forward at realised prices which Moody's estimates were lower than those achieved for 2010; and equivalent proportions of hard coal and CO2 input costs had been locked in. Moody's considers the Group's policy of selling power forward helps insulate it from the volatility of power prices.

» passing through price movements in its sales contracts with industrials and distributors. These contracts are generally based on wholesale market prices, plus a sales margin.

The A rating assigned for this sub-factor also takes account of the exposure of the Group's midstream business to the negative gas/oil spread risk in current market conditions. The Group's procurement portfolio currently amounts to approximately 47bcms (equivalent to roughly 470TWh) of gas, 24bcms of which are imported under oil price-linked long-term contracts. Although RWE has been able to hedge 4bcms of these, almost 20bcms remain exposed to the negative spread which is causing its margin on gas supply to come under intense pressure.

Moody's notes that in common with other gas importers the Group is in negotiations and arbitrations with most of its upstream suppliers with a view to (i) recovering losses incurred under existing contractual provisions and (ii) restructuring the agreements such as to reduce its exposure to gas/oil price spread risk and increase the flexibility provided by the contracts. It has been able to revise certain of its long-term contracts such that part of the volumes are no longer indexed to oil but are instead priced on gas wholesale spot prices. And the Memorandum of Understanding signed with Gazprom in July 2011 is intended to resolve ongoing commercial negotiations on gas contracts as well as form a strategic partnership in power generation. However, negotiations with several of its suppliers remain outstanding, and to the extent that RWE is unable to make progress on restructuring its long-term gas contract portfolio, that could exert pressure on the score for this sub-factor, given the scale of its business.

Capital requirements and operational performance

The Group is in the middle of delivering a substantial capital expenditure programme which at inception provided for investment of €28 billion over the four years 2010-2013. On average therefore, and with a potential for 10% variance either way, capital expenditure was expected to be €7 billion pa over the plan period. However as part of its response to the challenges it faces, RWE has reduced planned investment over 2011-13 by €3 billion to €18 billion. With seven fossil fueled power plants and another 1 GW of renewables capacity currently under construction, near-term capital investment plans for 2011 are largely unchanged at c.€7.5 billion. From 2012 and 2013, however, expenditure is expected to be reduced to around €5 billion annually. On that basis planned average spend remains at c.€6 billion pa, which represents roughly 18% of the €33.8 billion net property plant and equipment reported at end-June 2011, mapping to a B score for this sub-factor. Moody's notes that the Group had invested €2.7 billion during the first half of 2011, up from €2.5 billion during the same period in 2010. Looking beyond 2013, once the current investment cycle is completed, RWE sees sustainable long-term capex at ca €4 billion annually, a level which could lead to an improvement in its score on this sub-factor.

Most expenditure is on its core businesses, in markets in which the Group is already active. Principal current projects include:

» Having completed both Lingen (Gas, 876MW) and Staythorpe (Gas, 1,528MW) in 2010, the Group is building 7 new conventional power units with capacity totalling 10GW, and due to be commissioned over the next three years, as summarised in the table below.

FIGURE 4

RWE plant Capacity Under Construction at June 2011

Plant	Country	Fuel	Capacity (MW)	Cost € bn	Due date
Neurath	Germany	Lignite	2,100	2.6	2011/2012
Hamm	Germany	Hard Coal	1,528	2.3	2013
Pembroke	UK	Gas	2,188	1.2	2012
Eemshaven	Netherlands	HC/BM*	1,560	2.7	2014
Moerdijk 2	Netherlands	Gas	426	0.4	2011
Claus C	Netherlands	Gas	1,304	1.1	2012
Denizli	Turkey	Gas	775	0.5	2012

*Hard Coal/Biomass

» A planned increase in renewables capacity (in operation or under construction) of more than two times to more than 4,500 MW by 2014 with an aggregate pro rata investment of ca €4.5 billion. This is to be achieved mainly through its large off-shore wind projects in Germany with 295MW at Nordsee Ost; and in the UK, where it has 50% in the 504MW Greater Gabbard wind farm, expected to be fully operational in 2012, and a 60% share in 576MW Gwynt y Mor, where the three year construction schedule is to begin in 2011.

» Other areas of substantial investment include networks in Germany, and the development of oil and gas fields for production, including construction of the rig in the Breagh North Sea field and its connection with the UK.

Contribution from low/high-risk businesses

RWE's ratings are supported by cashflows generated from its regulated assets, which have a higher degree of visibility and predictability. In 2010 Moody's estimates the Group generated in excess of 20% of its €7.7 billion operating result from regulated activities - with the Sales and Distribution Networks business area alone accounting for €1.6 billion, or just over 20% - mapping to a Aa rating on this sub-factor. The bulk of these are generated from its domestic 320,000 kilometre distribution and 11,000 kilometre domestic power transmission networks. Regulated cash flows are also generated by its monopoly in Czech gas transmission.

Moody's assumes that RWE remains committed to its distribution grids, even if in July 2011 it announced the sale of 74.9% of Amprion, its transmission system operator, as part of its asset disposal programme, and that as commodity-related earnings come under pressure, lower risk regulated profits should continue to contribute over 20% of the Group's income. However, in the event that the Group were to consider further sales of its regulated assets as part of its €11 billion disposal target, it is possible that the score would be revised downwards, and that ratio guidance might be adjusted to reflect changing business risk.

FACTOR 3: Financial Policy

In scoring financial policy at Baa, Moody's factors in RWE's continued stated focus on managing its capital structure by reference to a Leverage Factor (defined as Net Debt/EBITDA) of up to 3x, which RWE considers to be aligned with its targeted mid-single A credit rating. At end-2010 the leverage factor was positioned at 2.8x, although the Group has signalled that it expects to breach this level in 2011. In that connection Moody's sees the approximately €2.5 billion planned equity capital measure announced in August 2011 as supportive of the Baa score. Moody's also takes account of RWE's €1,750 million hybrid bond issuance in September 2010 which, as well as boosting liquidity, has a positive effect on leverage as a result of the 50% equity treatment ascribed to it in accordance with Moody's methodology for hybrids.

FACTOR 4: Financial Strength Metrics

Diversified earnings base helps reduce volatility …

The breadth and geographical spread of RWE's businesses, as well as its hedging policies, have helped reduce earnings' volatility during a period of uncertain power demand and subdued pricing, and dislocation in gas markets. In fact the Group's operating result in 2010 rose by 8.3% to €7.7 billion, although adjusted for first time consolidation of Essent and foreign exchange effects the increase was closer to 3%. Earnings were boosted by strong growth in both the power generation and networks business areas in Germany, whose operating result rose by just over 16% to €4 billion and €1.6 billion respectively, and which were boosted by increased generation volumes at the reopened Biblis B plant and some improvement in network margins. Combined with growth at both 'Central Eastern and South Eastern Europe' division and in Dea, the upstream business, the Group was able to offset the collapse in Trading/Gas Midstream results which fell by over €1 billion to report a small loss in 2010.

…. but profitability is being severely squeezed in 2011

However negative underlying industry trends, together with the impact on earnings and provisioning of the new nuclear fuel rod tax and the early shutdown of two of the Group's nuclear power plants following the decision to accelerate nuclear phase out in Germany are exerting severe downward pressure on RWE's profitability and cash-flow generation. The combination of these developments was reflected in sharply lower 1H2011 earnings. Overall, the Group's 1H2011 EBITDA of €4.6 billion and Operating Result of €3.3 billion were 25% and 33% lower respectively than in the equivalent period in 2010. Although npower, RWE Innogy and RWE Dea reported improvements in profitability, these were insufficient to offset the large declines in the following divisions:

» RWE Power, whose 1H2011 operating result declined by 43% to €1.3 billion, mainly because of (i) lower realised electricity prices and output volumes because of the nuclear power moratorium from March – which in combination reduced the operating result by €690 million; and (ii) the nuclear fuel tax which cost €200 million.

» RWE Supply & Trading, whose 1H2011 operating result declined to a loss of €598 million from €278 million profit, mainly because of a weaker trading performance and the negative oil/gas spread. Some 200TWh of its long-term oil-based take or pay contracts has been exposed to a negative oil/gas spread which, on the basis the relative development of the TTF and brent forward prices for 2012, has been in the €5 - €10/MWh range during the period to August 2011.

Outlook is for negative pressure on profitability and cashflows to intensify

In Moody's view the outlook is for negative pressure on profitability and cashflows to intensify from 2H2011 from a continuation of trends seen in the first half:

- reducing power earnings as hedges run off, and new hedges for 2011 and 2012 are concluded at lower levels than the ones expiring; and
- an enduring negative oil/gas spread.

In addition to difficult underlying industry drivers, RWE's financial flexibility will be reduced by:

- the requirement from 2011 that it pay its share of the tax on nuclear fuel payable by the industry in Germany over the six years 2011-16, which it is estimated will be around €1.3 billion annually following the government's decision to accelerate nuclear phase-out. Moody's estimates that RWE's share could be in the region of €350 million, based upon its proportionate share of the nuclear fleet continuing in operation;
- the substitution of approximately 16TWh of outright nuclear power formerly produced by Biblis A & B with lower margin spread generation;
- the expense of closing down the two reactors, which Moody's assumes at ca €50 million per reactor in the early years. More generally, it seems possible that reduced maintenance/retrofit costs no longer needed may to an extent be offset by any additional costs that might be imposed on the nuclear industry in the post-Fukushima operating environment; and
- the cost of buying power in the market to deliver against forward sales made, although this negative effect rolls-off over time and will be progressively offset to the extent that unhedged output benefits from rising power prices.

In light of the 1H2011 performance and the additional negative implications of the accelerated nuclear phase-out, RWE itself has revised downwards its guidance on the outlook for 2011 EBITDA and operating result to declines of 20% and 25% versus 2010 from declines of circa 15% and 20% respectively. For 2013, RWE expects EBITDA and operating result to be in the range of €9,400 million and €5,900 million. This also reflects the added pressure of NAP III, which on current estimates will require it to purchase certificates for an additional 100 million tonnes of CO_2.

Rising debt reflects pressured cash flow and high capex

The table below shows how net financial debt as measured by Moody's (ie excluding 'other financial assets') increased to €15.3 billion at June 2011, from €14.1 billion at end-2010. On an adjusted basis, estimated net debt has risen a little over 2011. Moody's adjusted debt calculation includes both unfunded pension liabilities and nuclear liabilities, as well as irrevocable purchase commitments. It is in principle broadly aligned with RWE's own definition – although it differs through the exclusion of both mining liabilities and 'other financial assets' which include collateral payments made by RWE to counterparties with respect to forward power sales[1]. With respect to nuclear liabilities, at June 2011 RWE reported nuclear decommissioning provisions of €10.3 billion in its balance sheet, a little higher than at end-2010 to reflect the accelerated phase-out. On an adjusted basis, net of the notional equity credit in line with Moody's methodology, nuclear liabilities declined reflecting the lower cash balances held by RWE on balance sheet.

[1] See Moody's Special Comment 'Margin & Collateral Paid and Received by European Utilities: Whose Cash is it?' which sets out how Moody's adjusts for collateral payments made and received.

FIGURE 5

Summary Leverage Analysis

€ Million	1H2011	2010	2009	2008	2007	2006	2005	2004
Gross Financial Debt	19,484	19,810	20,146	13,483	13,285	19,382	27,452	27,383
Cash & Marketable Securities	-4,226	-5,672	-6,364	-8,984	-12,780	-19,582	-11,775	-12,539
Net Financial Debt	**15,258**	**14,138**	**13,782**	**4,499**	**505**	**-200**	**15,677**	**14,844**
Operating Leases		761	600	492	564	618	1,494	533
Pensions Liabilities		3,262	3,202	2,738	3,058	11,836	10,529	10,390
Nuclear Liabilities (net of equity credit)		6,494	6,783	8,321	9,053	8,834	6,954	7,840
Swaps treated as synthetic debt (hedge for investments)		-	-	-	-	-	-1,267	-2,024
Guarantees & liabilities related to assets held for sale		-	-	-	-	-	376	743
Irrevocable purchase commitments		1,775	1,562	1,294	1,951	1,936	2,096	1,580
Adjustment for 50% of hybrid not included in financial debt		879	-	-	-	-	-	-
Net debt related to American Water reclassified to debt		-	-	4,240	3,645	-	-	-
Net Adjusted Financial Debt incl. Nuclear Liabilities		27,309	25,929	21,584	18,748	23,024	35,859	35,187
Funds from Operations (FFO)		7,924	6,855	7,362	6,465	6,769	5,266	5,569
Dividends		2,205	2,592	2,005	2,199	1,208	1,070	939
Retained Cash Flows (RCF)		5,719	4,263	5,357	4,266	5,561	4,196	4,630
Free Cash Flow (FCF) as Adjusted by Moody's		-3,085	-2,512	4,158	-84	1,100	567	560
Interest Expense as Adjusted by Moody's		1,731	1,704	1,653	1,993	3,627	2,741	3,023
Financial strength metrics								
FFO + Interest Expense/Interest Expense		*5.6x*	*5.0x*	*5.5x*	*4.2x*	*2.9x*	*2.9x*	*2.8x*
FFO/Net Debt (incl. nuclear liabilities)		*29.0%*	*26.4%*	*34.1%*	*34.5%*	*29.4%*	*14.7%*	*16.4%*
RCF/Net Debt (incl. nuclear liabilities)		*20.9%*	*16.4%*	*24.8%*	*22.8%*	*24.2%*	*11.7%*	*13.7%*
FCF/Net Debt (incl. nuclear liabilities)		*-11.3%*	*-9.7%*	*19.3%*	*-0.4%*	*4.8%*	*1.6%*	*1.6%*

Outlook is for sharply lower credit metrics in 2011

Absent the impact of any remedial measures, borrowings are set to rise further during 2H2011, reflecting pressured operating cash flows and continued heavy capex. Taken in combination with steeply declining cash flows, the outlook in Moody's view is therefore for a sharp reduction in credit metrics in 2011 from the good levels achieved in 2010 when funds from operations (FFO)/net debt approached 30%, and retained cash flow (RCF)/net debt exceeded 20%.

In positioning the rating at A3, Moody's incorporates the expectation that RWE's efforts to reduce debt and underpin earnings will be reflected in a solid recovery in its debt protection metrics in 2012 from the sharp decline expected in 2011. Moody's notes the remedial measures announced in August by RWE designed to contain debt levels including an increased disposal programme and planned capital raising of up to €2.5 billion. Upon delivery, these initiatives should help partly offset the enduring negative pressures on earnings and reduce debt, and could eventually contribute to a stabilization of the outlook on RWE's A3 rating.

However there remains in Moody's view considerable uncertainty around the timing and quantum of delivery of these initiatives, especially the targeted asset disposals. The negative outlook therefore continues to reflect the execution risk around the disposal programme and other remedial measures, as well as the challenges the company faces in managing the implications of the nuclear phase-out, and renegotiation of its long-term gas contracts which in Moody's view imply uncertainty around recovery in RWE's financial strength from 2012 to a level consistent with its A3 rating – as would be reflected by, for example, retained cash flow/net debt in the mid-teens, and funds from operations/net debt above 20%.

Liquidity remains adequate

The cornerstones of RWE's liquidity position are its cash flow generation, large holdings of cash and marketable securities, and committed bank facilities. The company's policy is to fund centrally and to finance subsidiaries via inter-company loans. At end-H1 2011, RWE had approximately €1.6 billion of cash and cash equivalents and €2.7 billion of marketable securities, down from €3.6 billion of cash and €4 billion of marketable securities at end-Q1 2011. In November 2010 signed a EUR 4.0 billion, MAC and covenant-free, committed 5-year bank line, replacing previous two committed lines of EUR 2.0 billion each, maturing in end-2010 and 2011. RWE has access to a US$5 billion (€3.5 billion) Commercial Paper programme on a daily basis and is in a position to cover its short term debt, including CP outstanding at any given time, by its undrawn committed bank lines and cash.

RWE's main uses of cash include capital expenditure, investments, debt service, and dividends. Cash requirements are significant in the next 12 months, including capital expenditure of up to €6.5 billion, and dividend payments in line with the 50%-60% pay-out ratio of recurrent net income. The Group also had short-term bank and capital market financial liabilities of €3.8 billion at end-H1 2011, including a €1.5 billion bond redeemed in September 2011. Moody's believes therefore that RWE will need to access the capital markets.

Moody's Related Research

Rating Methodology:

» Unregulated Utilities and Power Companies, August 2009 (118508)

Industry Outlook:

» EMEA Electric and Gas Utilities, November 2010 (128849)

Sector Comment:

» Germany's Accelerated Nuclear Power Phase-Out Is Credit Negative For Utility Giants, June 2011 (133614)

Analyses:

» ENEL S.p.A., June 2011 (132895)

» E.ON AG, December 2010 (129643)

» GDF SUEZ, July 2011 (134641)

» Iberdrola S.A., June 2011 (133757)

Credit Opinion:

» Electricité de France, June 2011

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