

Credit Analysis

Moody's Global Infrastructure Finance

December 2009

Vattenfall AB

Stockholm, Sweden

Corporate Profile

Vattenfall's A2 rating reflects its position as a leading vertically integrated electric utility in the Northern European market; a more leveraged financial profile reflects the recent Nuon acquisition combined with weaker operating conditions.

Vattenfall AB ("Vattenfall", A2, stable) is Scandinavia's largest and Germany's third-largest electricity generator and a leader in district heating, with a strong market presence in Sweden, Denmark, Finland, Germany, Netherlands and Poland. Vattenfall is fully owned by the Swedish government.

In March 2009, the company made an offer to acquire 100% of Nuon NV's generation and supply operations. The transaction involves a two-step process, whereby (i) Vattenfall initially acquired 49% of Nuon's generation and supply activities (for EUR4.8billion) in July 2009, and (ii) the remaining 51% of the shares will be acquired after two, four and six years under fixed terms for a consideration of EUR5.03billion. As of 1 July Vattenfall took operational control of Nuon and the company was fully consolidated in the Vattenfall Group accounts.

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This Credit Analysis provides an in-depth discussion of credit rating(s) for Vattenfall AB and should be read in conjunction with Moody's most recent Credit Opinion and rating information available on Moody's website. [Click here to link.](#)



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Figure 1

9 Months Operating Highlights

9 months (SEK m)	External Net Sales		Net Sales*		Operating Profit		Relative Contribution		Operating Margin	
	9M 2008	9M 2009	9M 2008	9M 2009	9M 2008	9M 2009	9M 2008	9M 2009	9M 2008	9M 2009
Electricity Generation	33,323	29,066	53,571	61,410	18,438	19,649	79%	84%	34.4%	32.0%
Supply and Trading	8,028	8,612	31,374	44,462	425	405	2%	2%	1.4%	0.9%
Electricity Networks	33,128	39,101	44,148	51,164	3,590	4,099	15%	18%	8.1%	8.0%
Heat	9,894	13,213	18,364	22,161	2,582	1,944	11%	8%	14.1%	8.8%
Other businesses	52,224	65,237	59,796	73,139	(1,702)	(3,832)	-7%	-16%	-2.8%	-5.2%
Eliminations	(18,918)	(15,227)	(89,574)	(112,334)	0	0	0%	0%	0.0%	0.0%
Group Total	117,679	140,002	117,679	140,002	23,333	22,265	100%	95%	19.8%	15.9%
Nordic Countries	38,790	36,884	35,057	37,777	13,123	11,437	56%	49%	37.4%	30.3%
Central Europe	71,209	85,947	101,757	120,789	11,277	11,807	48%	51%	11.1%	9.8%
Benelux	0	7,644	0	9,527	0	(396)	0%	-2%	0.0%	-4.2%
Other businesses	7,680	9,527	31,541	46,219	(1,067)	(583)	-5%	-2%	-3.4%	-1.3%
Eliminations	0	0	(50,676)	(74,310)	0	0	0%	0%	0.0%	0.0%
Group Total	117,679	140,002	117,679	140,002	23,333	22,265	100%	95%	19.8%	15.9%

*Total net sales including sales between segments

In the above table, Benelux only contributes with 3 months (July-September 2009). The negative operating profit is explained by the amortization of surplus value.

Source: Vattenfall's "Interim Report January – September 2009"

Management Strategy

Investment strategy aimed at market share growth within Europe with focus on relatively volatile but profitable generation activities; sustainable energy development is key

Management strategy aims at developing Vattenfall as a leading European energy company, with a top 3 position among electricity producers in terms of clean electricity generation in Europe. The acquisition of Nuon's commercial activities is consistent with Vattenfall's strategy. Whilst the company aims to stay vertically integrated along the value chain, its main focus remains on generation activities, with the specific long-term objective of investing principally in sustainable energy sources. The acquisition of Nuon establishes Vattenfall's presence in the Dutch market, which offers growth potential in relation to generation activities. The proximity and good connectivity of the Dutch market with contiguous countries would potentially offer future growth opportunities in key strategic areas such as Belgium, France and the UK. In addition, the country is increasingly emerging as a gas and biomass hub.

Vattenfall has adjusted downwards its five-year investment plan due to difficult market conditions

However, in light of difficult market conditions, Vattenfall is now focused on the consolidation of its recent acquisition and key capital expenditure. Vattenfall has recently revised its 2009-13 plan to SEK210 billion (including SEK40 billion for Nuon) from an original SEK190 billion (excluding Nuon). The largest portion of these investments will be used to strengthen Vattenfall's generation capacity, through new power plants and the refurbishment of existing plants to reduce carbon dioxide (CO₂) emissions, as well as nuclear capacity upgrades and lifetime extensions of generation assets in Sweden and Germany. In addition, Vattenfall plans to invest in German and Nordic renewables assets. Vattenfall has earmarked a third as flexible capex, which has not yet been allocated.

Vattenfall is also planning some divestments, in the German and Nordic regions, which are estimated to generate around EUR1.5 billion of cash proceeds. The potential disposal of Vattenfall's German transmission

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grid is likely to be the biggest contributor to the proceeds. Moody's estimates that most of these disposals will take place in 2010.

Key Rating Considerations

Vattenfall's A2 long-term issuer and senior unsecured debt ratings reflect the application of Moody's Government-Related Issuer (GRI) rating methodology. At the current rating level, Vattenfall's rating benefits from a one-notch uplift on the basis of medium probability of state support.

Moody's classifies Vattenfall as a GRI because of its 100% ownership by the Swedish state. Under this GRI methodology, Vattenfall's ratings are the result of the following inputs:

- Baseline credit assessment (BCA) of 7 (on a scale of 1 to 21, where 1 corresponds to a Aaa rating and 7 to a A3 rating), which is based upon Moody's application of its Methodology for Unregulated Utilities, as set out below.
- Local currency rating of the Swedish government: Aaa/stable.
- Low dependence, due to the high degree of geographic diversification in the revenue base – with European operations contributing over half of revenues at the group level – and, hence, a lower linkage than is normally seen for a utility between its performance and the country's (Sweden's) overall economic performance.
- Medium support, reflecting Vattenfall's 100% ownership by the Swedish state and the strategic importance of Vattenfall within Sweden, at the same time acknowledging the state's determinedly non-interventionist stance. Moody's believes that the authorities would hesitate to intervene in support of partially or even fully state-owned companies, except in the most extreme circumstances, such as when the firm controls key strategic assets. This could be applied in the case of Vattenfall, which, given its size and importance, is a "flagship company" in Sweden with control over key nuclear and hydrological generating assets, as well as sizeable parts of the network infrastructure.

The Swedish state exercises long-term active ownership over the company and views value creation as a paramount goal for Vattenfall. To this end, the state establishes market requirements for profits and returns based on the risk profile of the company. There are currently no plans for a privatisation of this strategic company.

Baseline Credit Assessment

Rating Methodology Grid

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 that 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 contribute to the rating output by the methodology grid.

Based on the company's historic financial profile, the grid output for Vattenfall indicates a BCA of 5 (equivalent to an A1 rating), as summarised and described in the grid and paragraphs below. However, Moody's assigns a BCA of 7 (equivalent to an A3 rating). This is because the grid is based on average three-year historic financial metrics, which were very strong as a result of high power prices and a lack of acquisition opportunities. However, the rating is forward looking, reflecting the fact that, following the Nuon acquisition and in a softer power price environment, these financial metrics will weaken.

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Figure 2

Global Unregulated Methodology Grid							
Global Unregulated Utilities	Aaa	Aa	A	Baa	Ba	B	Caa
Factor 1: Market assessment, scale and 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-risk/high risk businesses		x					
Factor 3: Financial policy (10%)							
Financial Policy				x			
Factor 4: Financial strength metrics (40%) *							
a) FFO / Interest			8.6x				
b) FFO / Net Debt		46.5%					
c) RCF / Net Debt		36.0%					
d) FCF /Net Debt				7.6%			
Rating:							
a) Indicated BCA from Methodology			5=A1				
b) Actual BCA Assigned			7=A3				

* 3 year average historicals

Factor 1 - Market assessment, scale and competitive position

Size and scale

Moody's considers size to be 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 liberalised markets.

As at 30 September 2009, Vattenfall had assets of SEK649billion (e.g. EUR59billion). This places it in the Aa category, as a large supra-regional with strong positions in Northern Europe. There are no other companies in this category. Vattenfall ranks after the biggest utilities in EMEA, such as E.ON (A2/stable), Enel (A2/negative), Iberdrola (A3/stable) and EDF (Aa3/stable), but before Fortum (A2/stable), EnBW (A2/UrD) and EDP (A3/stable).

Competitive position and market structure

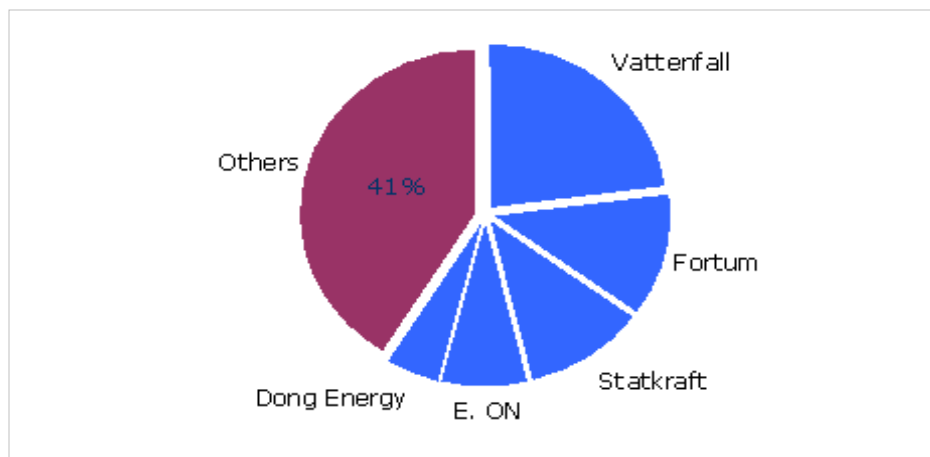
In this sub-factor, we consider the strength of a utility's core generation business and measure its competitive position by examining the generator's share of the annual output of its principal market and comparing it to shares of competitors, as well as by taking into account competitive intensity and local market conditions.

Vattenfall scores A on this factor, reflecting its strong market position in the Nordic and German regions, but recognising the competitive and open nature of these markets, in particular the Nordic market.

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Vattenfall is the largest power (electricity and heat) generator in the Nordic region, with 18.6 GW of installed capacity. It has a market share of around 20% in electricity generation, and an electricity production of 90.7 TWh and heat production of 10.4 TWh in 2008. The Nordic generation market is rather fragmented compared with a number of other European markets. Four major players control around 50% of the market (Vattenfall, Fortum, Statkraft, E.ON).

Figure 3: Nordic Market Breakdown – Power Generation, 397 TWh > 350 companies



Vattenfall also has a strong position in the German market (third-largest generator together with EnBW). The group generated around 69TWh in Germany in 2008, representing around a 12% market share. As such, it is a similar size to EnBW and together they rank third in terms of size after E.ON and RWE.

Following the acquisition of Nuon, Vattenfall is the largest generator in the Dutch market. In the Polish market, heat production and heat sales are the largest part of its operations, where Vattenfall has a market share of approximately 12%.

Factor 2 –Cash flow predictability of business model

Fuel mix and strategy

Vattenfall scores A on this factor, although is expected to shift into Aa as it continues with its investment strategy focused on low CO₂ emissions. As of end 2008, around 50% of its generation was from hydro, nuclear and other non-fossil fuel sources (23% hydro, 25.3% nuclear, 1.1% wind, 0.5% biofuels and waste). However, with the addition of Nuon, with its mainly gas-fired portfolio, this contribution is likely to drop slightly.¹ Nonetheless, Vattenfall has an overall well-balanced portfolio. Vattenfall's portfolio is greener in the Nordic countries, with around 91% of its generation being CO₂-free in 2008; in Central Europe, almost all its generation is exposed to CO₂ emissions, although Vattenfall is active in development of technologies to reduce emissions from coal and in September last year opened the first world's first pilot CCS plant based on oxyfuel technology in Germany.

The addition of more thermal sources also balances out the volatility associated with the hydro-driven Nordic power sector. Longer term, the company's portfolio should reduce its CO₂ emissions as greater investments are devoted to such generation sources.

¹ As of Q3 2009, following the integration of Nuon. 43% of its production was from nuclear, hydro and other non-fossil fuel.

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Figure 4

Vattenfall's Power Generation Mix.				
TWh	2007	2008	2007	2008
Nordic Region:				
Hydro power	31.3	34.4	42.6%	46.4%
Nuclear power	33.4	31.7	45.5%	42.7%
Fossil fuel-based power	7.1	6.1	9.7%	8.2%
Wind power	1.2	1.5	1.6%	2.0%
Biofuel, waste	0.4	0.5	0.5%	0.7%
Total Nordic Region	73.4	74.2	100.0%	100.0%
Central Europe:				
Hydro power	3.1	3.0	3.9%	4.1%
Nuclear power	6.6	2.2	8.3%	3.0%
Fossil fuel-based power	69.7	68.0	87.3%	92.5%
Wind power	0.1	0.1	n/a	n/a
Biofuel, waste	0.3	0.2	n/a	0.3%
Total Central Europe	79.8	73.5	99.5%	99.9%

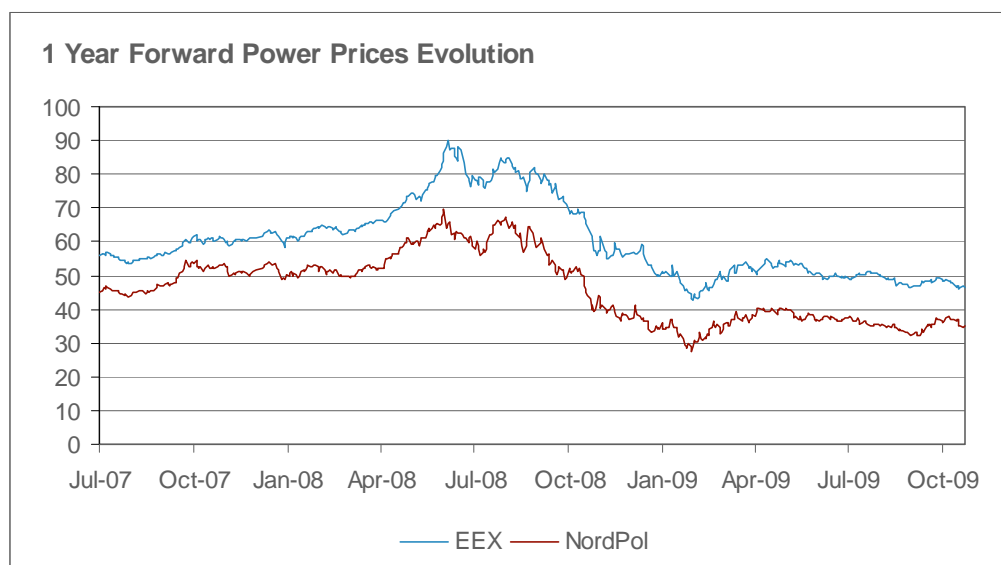
Vattenfall's "Annual Report 2008"

The above statistics do not incorporate Nuon.

In the Nordic countries, Vattenfall has a flexible portfolio, with a good mix of base-load, mid-merit and peak-load power. The Nordic power generation is dominated by hydro production (above 50%) and nuclear (above 20%); the rest consists of renewables (close to 10%) and fossil fuels. As a result, Vattenfall is fairly well aligned, but somewhat less thermal, with the Nord Pool. Conversely, the company's German portfolio is largely coal-driven. The Nuon acquisition adds a mainly gas-driven fleet of assets.

Whilst the Nordic power sector is very "clean", it is also rather volatile. It is highly sensitive to water levels and production can swing by up to plus or minus 30TWh (total production is around 390TWh), directly impacting prices. Vattenfall has recently cautioned that the recent drop in demand in the Nordic sector – around 6% (masking a 20% drop in industrial demand driven by a retraction in energy intensive industry), is unlikely to recover quickly. This could lead to prices being kept at a lower level than the EEX, although there has been a general trend upwards in recent years, as the Nord Pool has been expected to benefit from higher CO2 prices. Overall, Vattenfall believes that demand, which has also dropped by 5-6% in Germany, will recover more quickly than the Nordic market.

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Figure 5: Forward Prices Evolution***Degree of integration and hedging strategy***

In this category, Moody's considers the degree of downstream integration (access to a retail customer base) as well as the extent to which the generator can stabilise future cash flow through forward sales of its production.

Vattenfall scores Baa in the degree of integration and hedging strategy. We consider Vattenfall's "long" position in generation in both the Nordic and German region vis its supply business (around 60-70% of production is sold to end-customers, the balance on the wholesale market), however noting that Vattenfall benefits from low-cost baseload generation assets in its major markets - hence high load factors - with access to the liquid Nord Pool and EEX electricity exchanges which are the primary outlets for wholesale generation. With the acquisition of Nuon, Vattenfall has gained 2.6 million electricity customers and 2.1 million gas customers. Vattenfall has a "short" generation position in the Netherlands.

Overall, supply activities remain very low-margin in the Nordic and German regions, although they provide some hedge to generation activities. A retail business has in any event more limited benefits in terms of margin protection, in a very transparent and competitive market such as the Nord Pool, than in some other European markets.

Additionally Moody's notes that Vattenfall has an active and prudent hedging programme through both the Nord Pool and EEX, which mitigates the impact of short-term price movements, in particular this is important in the somewhat volatile hydro-driven Nord Pool. As of September 2009, Vattenfall had sold forward 80% of electricity generation for 2009, 70% in 2010 and over 40% for 2011; for Central Europe, the hedges for the comparable periods were 90%, 70% and over 20%; and for Benelux, 100%, over 90% and over 50%, respectively.

Capital requirements and operational performance

In line with most of its European peers, Vattenfall has significant capex requirements in the next few years. However, the recent trimming of its capex budget such that estimated annual capex is, on average, SEK42 billion (SEK210 billion over the five-year period 2009-13), around 14% with respect to its current net PP&E² (position, placing it in the Ba category. Further details of Vattenfall's investment plan in line with its strategic objectives are provided in the Strategy section.

² Property, plan and equipment of SEK 311 billion as at 30.9.2009

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Contribution of high/ low risk businesses

Vattenfall scores in the Aa category on this factor, as it has a contribution of around 25-30% of EBITDA from regulated/low risk businesses (Moody's includes network and district heating businesses in this category). This could shift to A over time, if Vattenfall shifts from the more regulated businesses into more volatile generation.

Regulated network businesses

Vattenfall maintains strong market positions in regulated networks and in district heating businesses. It is the second-largest network operator in the Nordic region, the third-largest transmission operator and the fourth-largest distribution system operator in Germany, while it has the largest district heating business in the region. District heating is not a regulated business, but it has quasi-monopoly characteristics given the high barriers to entry and long-term contracts. Margins could be lower in the heat business in the future given increasing fuel costs and lower subsidies. The profit contribution from the distribution and heat businesses in Poland is still relatively small, although Moody's regards this regulatory environment as slightly more risky (compared with Western Europe), as it is still in process of development.

Regulated networks allow Vattenfall rather stable cash flows, although regulatory environments have been quite stringent in recent year in Germany and Sweden, which has put pressure on returns

In Sweden, the present ex-post regulatory framework will be changed into ex-ante regulation from 2012 (four-year tariff periods). The new regulation is to be based on the real electricity network, not a virtual network as under the present regulation. The Swedish regulator introduced a new pricing framework, effective since 2003, that models the relationship between tariffs, costs, network performance and quality of service based on a "virtual" ideal network. Regulation in Sweden has been rather tough for the companies. However, in the winter of 2008/09, the regulator finally decided to withdraw its demand for repayment to network customers regarding the 2003 tariff year and for the years 2004-2008 the repayment demand was set at SEK0.5 million. Light-handed regulation is expected to continue, and the regulator has not presented any objections to Vattenfall's current pricing strategy.

The Finnish market is regulated by the Energy Market Authority (EMA) and the framework is considered stable and predictable based on an ex-ante pricing model (based on a regulated asset base, cost of capital and an efficiency parameter) initially put in place in 2004.

This framework has some flexibility for profit adjustments from one regulatory period to the next.

In Germany, pressure continues to be exerted on regulated networks generally. Vattenfall has distribution networks in Berlin and Hamburg. The energy law (EnWG) was approved in July 2005. On 1 January 2009 an incentive-based regulation (ARegV) was implemented. Following earlier cuts, in 2009 compared to 2008, Berlin and Hamburg will get a 2.4% and 3.9% increase in revenues, respectively, valid until the end of the year. Looking forward to 2010, Berlin will increase revenues by 6.1% and Hamburg will remain constant at 2009-levels.

Vattenfall nonetheless considers the return on its German regulated network business as lower than targeted, and a sale of its German transmission assets is currently under negotiation.

Factor 3 – Financial Policy

Vattenfall has demonstrated a balanced financial policy over a number of years between shareholder and bondholder interests and scores Baa, in line with the majority of the unregulated power utilities in Europe. Vattenfall's financial targets include cash flow interest coverage after maintenance investments between 3.5x and 4.5x, ROE of 15% and a dividend payout ratio of between 40% and 60%. Vattenfall has, for a number of years, maintained the target of a long-term rating in the A category.

In assigning a Baa score for this factor, Moody's also takes into account Vattenfall's willingness to pursue strategic growth through capex and acquisitions, although notes that the company is now pursuing a policy of consolidation following the Nuon acquisition and in light of more difficult market conditions.

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Factor 4 – Financial Strength Metrics

Vattenfall demonstrated a very strong financial profile prior to the acquisition of Nuon in 2009

Vattenfall's financial profile has been very strong in recent years (prior to 2009), driven both by high power prices and lack of suitable acquisition opportunities, leading to financial ratios very strongly positioned for its rating category.

Figure 6

Key Adjusted Financial Data		
(in SEK bn)	2007	2008
Revenue	143.64	164.55
EBIT	27.35	27.49
Interest Expense	3.99	5.30
FFO	33.05	32.30
RCF	25.07	23.87
Capex	19.24	30.91
FCF	5.87	(2.37)
Total Debt	81.04	123.23
Net Debt	61.66	86.75
FFO Interest Coverage	9.3x	7.1x
FFO / Net Debt	53.6%	37.2%
RCF / Net Debt	40.7%	27.5%
FCF / Net Debt	9.5%	-2.7%

Source: Vattenfall's "Annual Report 2008" and Moody's adjustments

Key financial metrics for year-end 2008 were weaker than 2007 – principally due to higher debt as a result of slightly weaker FFO and higher capex, around SEK30 billion. However, they remained strong for the rating category, with Retained Cash Flow (RCF) to net debt of 27%, FFO to net debt of 37% and FFO interest coverage at 7.1x.

Q3 2009 reflect a much weaker financial profile, due to both the Nuon acquisition and a weaker operating environment

Vattenfall's debt increased substantially, primarily due to the acquisition of 49% of Nuon for EUR4.8billion. Unadjusted total debt and net debt at the end of Q3 rose to SEK218.8 billion and SEK157.3 billion, respectively, from SEK 107 billion and SEK66 billion at the end of 2008. Moody's notes that, as Vattenfall consolidates Nuon from Q3, it also includes the SEK51 billion of debt liabilities to minorities (this represents the 51% of Nuon still owned by the current Dutch municipal shareholders of Nuon NV). This is appropriate, as Vattenfall expects to acquire the remaining stakes in Nuon over the next six years by way of a series of call options; nonetheless, it reflects the full impact of the Nuon acquisition in the debt numbers before full 100% ownership is achieved.

Reported FFO for the first nine months of 2009 was SEK25.3 billion, with reported FFO to net debt at 23%. Investments in Q3 were SEK68.5 billion (SEK85.4 billion for 2009 so far).

Q3 is typically Vattenfall's weakest quarter. However, this year the current economic downturn impacted Vattenfall's profits more than usual; electricity prices have been lower (average spot price in the Nordic countries was EUR 31.28/MWh, compared with EUR55.51/MWh during Q3 2008) and demand for electricity has fallen from electricity-intensive industries, leading to lower generation volumes than for the same period last year.

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Overall group operating profit fell by 4.6% to SEK22.3 billion for the nine-month period, although profitability was particularly hit in the third quarter - down 37.0% to SEK 3.5 billion. Moody's notes, however, that Vattenfall does benefit from long-term hedges in place, which smooths the impact over time; therefore, 2009 results will benefit from hedges put in place in earlier years.

Vattenfall's financial profile is currently positioned at the low end of the category

Moody's currently sets the following parameters for the current rating (RCF/net debt of 15-19%) and FFO/net debt in the 20s. Vattenfall should ensure a solid positioning within these ranges to maintain a comfortable positioning within the rating category.

Following the Nuon acquisition, Moody's expects the company to be somewhat weakly positioned in the rating category, as the company may continue to suffer from restrained demand in the Nordic sector. Vattenfall expects the German sector to rebound more quickly.

However, Moody's notes that the company is very aware of the fragile market conditions and is taking measures to find capex and operating efficiencies, as well as EUR1.5 billion of divestments to defend its financial profile.

Vattenfall is currently positioned at the low end of the current rating category. Should ratios deteriorate beyond the bands indicated for any extended period then downward pressure could occur.

Liquidity

Vattenfall has a good liquidity position due to strong cash flow and significant liquid assets, as well as ample back-up lines. At Q3 2009, Vattenfall had SEK18.7 billion (around EUR1.8 billion) of available cash and cash equivalents, and SEK41.2 billion (EUR4 billion) of short-term investments, totalling SEK60 billion of which SEK37.8 billion (EUR3.7 billion) is fully available. The company also has a EUR1 billion committed revolving credit facility, syndicated with 12 banks, which matures in 2013. Drawings under the facility are subject to representations that no adverse change in the group's financial condition has occurred. In addition, the company has a SEK100 million overdraft facility. Vattenfall has two commercial paper (CP) programmes: a Euro CP programme of USD2 billion and a domestic programme of SEK15 billion. Use of the programmes varies, depending largely on pricing and need.

In addition, the company has good cash flow generation. Moody's estimates that cash from operations in the following 12 months should be around SEK40 billion. However, capex for the next 12 months is expected to be in the region of SEK40 billion or more, debt repayments should be around SEK7.5 billion and dividend payments at around SEK6.5 billion.

Vattenfall's general policy is to keep no less than 10% of group turnover in cash or committed back-up lines. If the next 90 days of debt maturities exceed this amount, then this establishes the minimum level of cash and committed lines that Vattenfall is required to hold.

Rating Outlook

The outlook is stable. Moody's believes that the company will take measures to bolster its financial profile. However, Moody's notes that the company is likely to be positioned at the low end of the rating category level in the intermediate term.

What Could Change the Rating - Up

Moody's notes that positive pressure is unlikely to develop in the near term, given Vattenfall's current financial profile, the recent Nuon acquisition, its substantial investment strategy and its long-term strategy to continue to grow its operations. Moody's notes the company's somewhat reduced financial flexibility following the transaction, although planned divestments should help ease the situation.

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What Could Change the Rating - Down

If ratios deteriorate beyond the bands indicated for any extended period, then downward pressure could occur.

In addition to the factors listed above affecting the BCA, the ratings may also be affected by changes in the ratings of the supporting government, or by changes in Moody's assessment of default dependence and support described in the rating rationale, none of which are foreseeable in the medium term.

Rating Positioning and Peer comparison

Moody's believes Vattenfall's business risk profile is more diversified than the other major Nordic utility, Fortum in Finland. However, it is still somewhat more exposed to greater volatility in generation prices than Central European peers, such as E.ON and RWE. This exposure is mitigated by a fair degree of lower risk monopoly or quasi-monopoly activities (networks and district heating).

Vattenfall is considered somewhat less risky from a business risk perspective than another Nordic utility, DONG Energy, which has less regulated business in its business mix and has exposure to riskier E&P and gas activities. Centrica and Edison are also higher risk businesses, as they are more exposed to commodity pricing.

E.ON is a significantly larger entity than Vattenfall (and indeed most of the European players) and hence has greater financial strength.

Figure 8

2008 Peer Comparisons – Key Financial Indicators				
Company	Rating*	RCF/ Net Debt	FFO Interest Cover	FFO/ Net Debt
E.On AG	A2/St.	15.3%	4.4x	22.3%
Vattenfall AB	A2(7)/St.	27.5%	7.1x	37.2%
Fortum Oyj	A2 (7)/St.	14.4%	6.9x	30.6%
Enel SpA	A2(7)/Neg.	8.4%	3.4x	14.0%
RWE AG	A2/Neg.	24.8%	5.5x	34.1%
Iberdrola SA	A3/St.	10.1%	4.0x	14.6%
Centrica	A3/St.	58.7%	7.7x	85.0%
DONG Energy A/S	Baa1 (8-10)/ St.	44.4%	7.1x	52.3%
Edison S.p.A.	Baa2 /Neg.	29.5%	8.5x	38.8%

Source: Moody's.

*Moody's. Senior Unsecured / Issuer Rating and, for government-related issuers, in brackets Baseline Credit Assessment with 1 representing Aaa, 2 Aa1, 3 Aa2 etc.

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Appendix – 1 Moody's Adjustments

Moody's makes a number of standard analytical adjustments to the accounts of non-financial corporate debt issuers. Our objective is to better reflect – for analytical purposes – the underlying economics of transactions and events, and to improve the comparability of a company's accounts with those of its peers. Moody's does not perform forensic or audit procedures and these adjustments do not imply that the accounts fail to comply with accounting standards. Indeed, many of Moody's adjustments are inconsistent with IFRS. Our goal is to enhance the analytical value of financial data rather than to assess compliance with laws or regulations governing financial reporting.

The following table shows how the adjustments made by Moody's affected certain key credit metrics for Vattenfall in 2007 and 2008. The adjustments detailed below are already incorporated into our rating analysis for the company.

Figure 9

Summary Table				
SEK billion	As reported by Vattenfall		As adjusted by Moody's	
	2007	2008	2007	2008
Interest expense	3.33	4.15	3.99	5.30
Gross debt	67.19	107.35	79.82	123.23
Net debt	44.53	67.11	60.44	86.75
Funds from operations (FFO)	34.05	30.74	33.05	32.30
Dividends paid	7.61	8.07	7.97	8.43
Retained cash flow (RCF) (note 1)	26.44	22.67	25.08	23.87

Note 1: RCF equals FFO minus dividends paid.

Source: Vattenfall Annual Report 2008 and Moody's Adjustments.

Figure 10

Moody's Adjustments				
SEK billion 2008	Interest expense	Dividends paid	Gross debt	Net debt
As reported	4.15	8.07	107.35	67.11
Pensions	1.30	-	21.84	21.84
Operating leases	0.21	-	3.74	3.74
Hybrid securities (note 1)	-0.37	0.37	-8.11	-8.11
Guarantees	-	-	1.54	1.54
Cross currency swaps	-	-	-3.13	-3.13
Funds blocked as security for trading on energy exchanges	-	-	-	0.03
Funds set aside as security for nuclear accidents	-	-	-	3.72
As adjusted	5.30	8.43	123.23	86.75

Note 1: Basket D (75% equity) treatment by Moody's for €1bn (SEK 8.911bn) of Capital Securities issued in June 2005 (5.25% coupon fixed until 2015, three month Euribor plus 2.95% thereafter).

Source: Vattenfall Annual Report 2008 and Moody's Adjustments.

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Figure 11

Calculation of FFO		
SEK billion	2007	2008
CFO as reported	32.33	36.19
Working capital outflow as reported	1.72	-5.46
FFO as reported (CFO before working capital outflow)	34.05	30.74
Working capital movement related taxes (note 1)	-1.75	1.51
Working capital movements related to interest receivables and liabilities	-	-0.73
FFO as standardised by Moody's	32.30	31.52
Two-thirds of lease rental expense reclassified as depreciation	0.39	0.42
Hybrid securities financing cost reclassified (note 2)	0.37	0.36
FFO as adjusted by Moody's	33.05	32.29

Note 1: When the change in working capital excludes timing differences between current tax expense and tax paid, and between net interest expense and net interest paid, Moody's includes these additional elements in working capital.

Note 2: Moody's re-allocates 75% of interest expense to preferred dividends (see footnote 2 in Figure 2).

Source: Vattenfall Annual Report 2008 and Moody's Adjustments.

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Moody's Related Research

Rating Methodologies

- Unregulated Utilities and Power Companies, August 2009 (118508)
- Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations – Part II - February 2006 (96729)

Industry Outlooks

- Industry Outlook: EMEA Electric and Gas Utilities, October 2009 (120334)

Special Comments

- Are We Better Off Under IFRS, November 2008 (111906)
- Moody's Accounting Observations on the 2007 Results of Europe's Electricity Producers, July 2008 (109531)
- EU Climate Change strategy – Putting Emission-Reduction Targets Into Perspective, May 2008 (108846)
- Rating European Unregulated Utilities in a Severe Economic Downturn, April 2009 (115826)
- Margin & Collateral Paid and Received by European Utilities: Whose Cash is it? Moody's response to the accounting differences, June 2009 (117823)

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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