

Global Credit Research - 22 Dec 2010

Stockholm, Sweden

## Ratings

Category	Moody's Rating
Outlook	Stable
Issuer Rating	A2
Senior Unsecured	A2
Subordinate MTN	(P)A3
<b>Vattenfall Treasury AB</b>	
Outlook	Stable
Bkd Senior Unsecured	A2
Bkd Subordinate MTN	(P)A3
Bkd Commercial Paper	P-1

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## Key Indicators

Vattenfall AB[1]	12/31/2006	12/31/2007	12/31/2008	12/31/2009
(CFO Pre-W/C + Interest) / Interest Expense	10.0x	9.3x	7.1x	5.0x
(CFO Pre-W/C) / Net Debt	52.0%	53.6%	36.8%	19.3%
RCF / Net Debt	42.8%	40.7%	27.2%	15.4%
FCF / Net Debt	19.1%	9.5%	-2.7%	-3.8%

[1] Standard adjustments in accordance with "Rating Methodology: Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations, Part 1, Part 2 and Part 3."

Note: For definitions of Moody's most common ratio terms please see the accompanying [User's Guide](#).

## Opinion

### Corporate Profile

Vattenfall AB (Vattenfall, A2/stable), a 100% Swedish state-owned company, is the largest utility in the Nordic sector, as well as the third-largest electricity producer in Germany. It is active in all aspects of the electricity chain, as well as district heating, though focusing on power generation.

In July 2009, the company acquired Nuon NV's generation and supply operations. This acquisition substantially extended the company's gas and electricity customer base in the Dutch market and added low carbon assets to its portfolio. At the same time it weakened the company's balance sheet and reduced its financial flexibility. Although the purchase transaction involves two steps and the second step for Vattenfall will be to acquire the remaining 51% of Nuon's shares in 2011, 2013 and 2015, the utility is already fully integrated into Vattenfall and generates a significant part of the group's cash flows.

### STRATEGY

In light of the less favourable market environment, reduction of value creation and post-acquisition weakening of its financial profile, Vattenfall has revised its strategy in 2010. Within its new strategy the company seeks to improve its market return on generation, reduce CO2 exposure and strengthen its balance sheet. Vattenfall will remain a vertically integrated utility, focusing on low carbon generation, but will limit its geographical focus to Sweden, Germany and the Netherlands. Additionally, the company has reduced its investment programme to SEK165 billion for the five-year period 2011-2015, from SEK201 billion for the previous period 2010-2014. In order to release resources for growth in low emission technologies, Vattenfall is exploring various divestment possibilities for some of its non-core assets; such a disposal-- its "50 Hertz"

German transmission grid -- was successfully completed in May 2010 with total cash proceeds of EUR785 million. Another important medium term target of the company is to improve its operating performance through implementation of a new, business-led organizational structure and a cost cutting programme.

### Rating Rationale

Vattenfall is classified by Moody's as a Government Related Issuer (GRI), given its 100% ownership by the Swedish government. On application of the GRI methodology, the A2 long-term issuer ratings of Vattenfall incorporate a one-notch uplift for potential state support. The rating includes the following factors:

- Baseline Credit Assessment (BCA): 7 (on a scale of 1 to 21, where 1 represents lowest credit risk; a 7 is equivalent to an A3 rating). This factors (i) the company's strong market positions as a leading utility in the Nordic area, Germany and the Netherlands (ii) a well-diversified portfolio of generation assets; and (ii) relatively weak but improving credit metrics for the rating category;

- Local currency rating of the Swedish government: Aaa/stable;

- Dependence: Moderate in light of the high degree of geographic diversification in the revenue base and, hence, a lower linkage than is normally seen for a utility between its performance and the country's (Sweden's) overall economic performance.

- Support: Moderate, reflecting its 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 except in the most extreme circumstances, such as when the firm controls key strategic assets (Vattenfall controls 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 on profits and returns based on the risk profile of the company.

### DETAILED RATING CONSIDERATIONS

Moody's applies its rating methodology for Unregulated Utilities and Power Companies (August 2009) to Vattenfall. Based on the company's historic financial profile, the grid output for Vattenfall indicates a BCA of 6 (equivalent to an A2 rating), as summarised and described in the grid and paragraphs below. The ratios used in the grid are three-year historic averages, and they were very strong prior to 2009 due to high power prices and a lack of acquisition opportunities. However, after the acquisition of Nuon in 2009 the financial profile of the company became significantly more leveraged, and this affected average metrics in 2009. We expect weaker ratios than those prior to 2009 to feature over the next few years thus justifying our BCA of 7 (equivalent to an A3 rating). Although we expect the company's financial profile to gradually improve again from a 2009 weak point, as it reaps the benefit of a lower investment programme and possible disposals.

#### FACTOR 1 - MARKET ASSESSMENT, SCALE AND COMPETITIVE POSITION

##### SIZE AND SCALE

As at 30 September 2010, Vattenfall had assets of SEK529billion (EUR58billion). 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/under review for possible downgrade), Iberdrola (A3/negative) and EDF (Aa3/stable), but before Fortum (A2/stable) and EnBW (A2/stable).

##### COMPETITIVE POSITION AND MARKET STRUCTURE

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.

Vattenfall is the largest power (electricity and heat) generator in the Nordic region, with c. 18.4 GW of installed capacity and around 20% market share in electricity generation. The Nordic generation market is rather fragmented compared with a number of other European markets. Five major players control around 55% of the market (Vattenfall, Fortum, Statkraft, E.ON, Dong).

Vattenfall also has a strong position in the German market. The group generated around 65 TWh in Germany in 2009, representing a market share of around 12%. 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 one of the three largest generators 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 it is expected to shift into Aa as it continues with its investment strategy focused on renewables. For the year 2009, around 50% of its generation was from hydro, nuclear and other non-fossil fuel sources (21.3% hydro, 26.1% nuclear, 1.1% wind, 0.9% biofuels and waste). Thus, Vattenfall has an overall well-balanced portfolio.

##### DEGREE OF INTEGRATION AND HEDGING STRATEGY

In this category, Vattenfall scores Baa. We consider Vattenfall's "long" position in generation in both the Nordic and German region versus its supply business -- around 60-70% of production is sold to end-customers, the balance on the wholesale market. We note however that Vattenfall benefits from low-cost generation assets in its major markets, but with relatively high load factors and 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. Thus, Vattenfall currently holds 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 2010, Vattenfall had sold forward 89% of electricity generation for 2010, 73% in 2011 and 54% for 2012 for the Nordic countries; for Central Europe, the hedges for the comparable periods were 97%, 83% and 40%.

#### CAPITAL REQUIREMENTS AND OPERATIONAL PERFORMANCE

In line with most of its European peers, Vattenfall has significant capex requirements in the next few years. However, it recently further reduced its capex budget such that estimated annual capex is, on average, SEK33 billion (SEK165 billion over the five-year period 2011-15), on average around 12% with respect to its projected net PP&E (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.

#### 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). The disposal of its German transmission grid in May 2010 led to a reduction of regulated revenues in the third quarter of 2010 vis the previous period, but had a limited impact at the operating profit level; hence we have not changed the company's scoring under the methodology. Moody's notes, however, that the scoring could shift to A over time, if Vattenfall continues to shift from the more regulated businesses into more volatile generation.

Vattenfall maintains strong market positions in regulated networks and in district heating businesses. It is the second-largest network operator in the Nordic region 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.

#### 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%, ROA of 11% before tax 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 in a consolidation phase following the Nuon acquisition and recent strategy revision.

#### FACTOR 4 -- FINANCIAL STRENGTH METRICS

Vattenfall's financial profile had been very strong in recent years, prior to the acquisition of Nuon in 2009, driven both by high power prices and lack of suitable acquisition opportunities, leading to financial ratios very strongly positioned for its rating category. In line with our expectations, the 2009 financial ratios were much weaker than in prior years.

In 2009 financial metrics moved towards the lower end of the band recommended for Vattenfall's current rating category as a result of significantly higher debt levels following the Nuon acquisition, with Retained Cash Flow (RCF) to net debt of 15.4%, FFO to net debt of 19.3% and FFO interest coverage at 5.0x.

During the first nine months of 2010 the metrics modestly improved due to cost savings, Nuon's contribution to the overall cash flow (Nuon is consolidated in Vattenfall's accounts from July 2009 onwards) and also due to the benefits of a very low hydro balance in 2010, driving up Nord Pool prices. These developments, along with a Swedish krona appreciation, led to a SEK10 billion reduction in Vattenfall's net unadjusted debt to SEK145 billion at the end of Q3 from SEK155 billion at the end of 2009. Therefore, Moody's anticipates that the company's 2010 financial profile will be slightly more strongly positioned within the recommended ratio band than in 2009.

Current ratio guidelines for Vattenfall's rating are: RCF/net debt of 15-19% and FFO/net debt in the 20s. The company should ensure a solid positioning within these ranges going forward to maintain a comfortable positioning within the rating category. Should ratios deteriorate beyond the bands indicated for any extended period then downward pressure could occur.

Moody's also notes that the announcement by German government introduction of nuclear fuel tax will have some negative impact on Vattenfall's profitability, and hence, financial flexibility but will not, on its own, have a negative impact on the rating of the company. Based on Vattenfall's 7.2% share in total German installed nuclear capacity, the estimated annual nuclear tax for the company is around EUR165 million, out of the total EUR2.3 billion, annual levy for the whole of the German nuclear industry.

#### Liquidity

We generally consider Vattenfall's liquidity satisfactory as the company's large balance of cash and liquid assets and available long-term revolving facilities are normally sufficient to cover its next 12 months' debt repayments and capex. The company's available cash and short term investments amounted to SEK37.3 billion at Q3 2010 and availability under the EUR1 billion (SEK9.6 billion) committed revolving credit facility, maturing in 2013, was SEK9.2 billion. Drawings under the facility are subject to representations that no adverse change in the group's financial condition has occurred. In addition, the company had a SEK100 million overdraft facility. Vattenfall has two commercial paper (CP) programmes and an EMTN programme in place: a Euro CP programme of EUR2 billion (SEK19.2 billion), a domestic CP programme of SEK15 billion and Euro MTN programme of EUR15 billion (SEK144 billion), EUR4.4 billion (SEK42.2 billion) of it unutilized as of writing. The use of the programmes varies, depending largely on pricing and need.

Vattenfall will probably need to access the debt markets next year. Liquidity sources are strong, but they are unlikely to be sufficient to cover substantial debt refinancing and capex needs. Hence in addition to cash and availability under credit lines, an estimated operating cash flow of around SEK40 billion over the next 12 months could be applied to cover Vattenfall's debt maturities of SEK10 billion, planned capital expenditures of SEK44 billion, dividend payments and a further acquisition of Nuon's minority share for SEK15 billion due in June 2011.

## Rating Outlook

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

### What Could Change the Rating - Up

Moody's notes that positive pressure is unlikely to develop in the near term, given (i) Vattenfall's current somewhat weak financial profile post the recent Nuon acquisition and (ii) its long-term strategy to continue to grow its operations.

### What Could Change the Rating - Down

If ratios deteriorate beyond the bands indicated for the current rating for any extended period, possibly due to much lower power prices and volumes or failure to moderate investments, 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 Factors

### Vattenfall AB

Unregulated Utilities	Aaa	Aa	A	Baa	Ba	B	Caa
<b>Factor 1: Market Assessment, Scale &amp; Competitive Position (25%)</b>							
a) Size and Scale		X					
b) Competitive Position and Market Structure			X				
<b>Factor 2: Cash Flow Predictability of Business Model (25%)</b>							
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					
<b>Factor 3: Financial Policy (10%)</b>							
a) Financial Policy				X			
<b>Factor 4: Financial Strength Metrics (40%) [1][2]</b>							
a) (CFO Pre-W/C + Interest) / Interest Expense (3 year Avg)			6.5x				
b) (CFO Pre-W/C) / Net Debt (3 year Avg)			30.1%				
c) RCF / Net Debt (3 year Avg)			23.1%				
d) FCF / Net Debt (3 year Avg)				-1.1%			
<b>Rating:</b>							
a) Indicated Rating from Grid			6 = A2				
b) Actual BCA Assigned			7 = A3				

Government-Related Issuer	Factor
a) Baseline Credit Assessment	7 = A3
b) Government Local Currency Rating	Aaa
c) Default Dependence	Moderate
d) Support	Moderate

[1] Standard adjustments in accordance with "Rating Methodology: Moody's Approach to Global Standard Adjustments in the Analysis of Financial Statements for Non-Financial Corporations, Part 1, Part 2 and Part 3." [2] Average ratios for 2007-2009; Source: Moody's Financial MetricsTM



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