

Vattenfall AB

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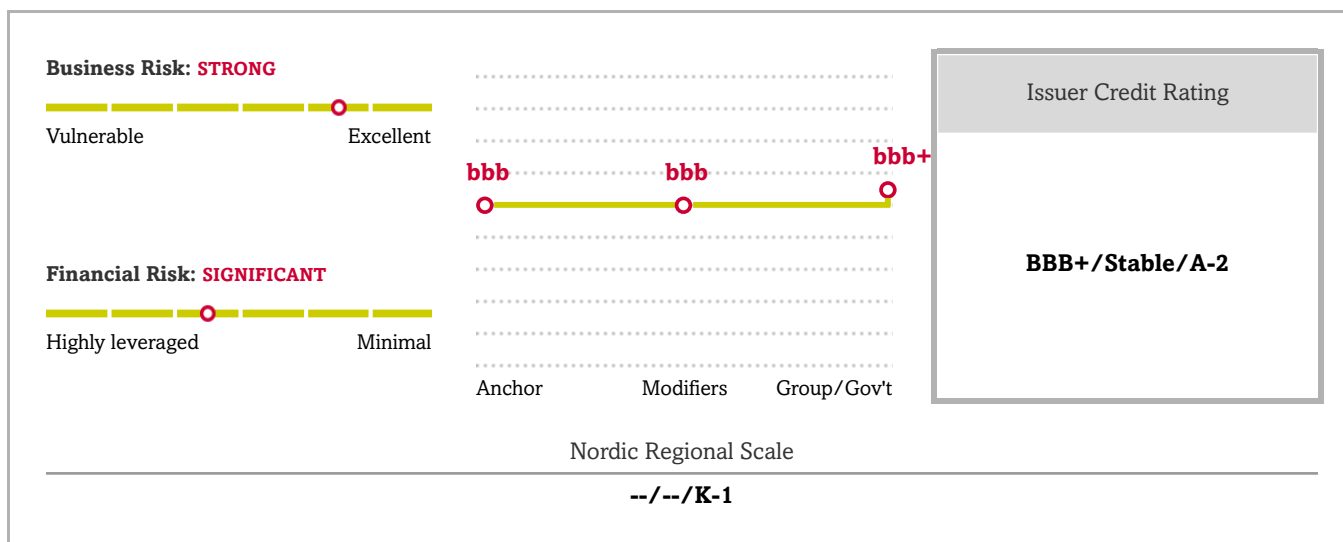
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Vattenfall AB



Credit Highlights

Overview

Key Strengths	Key Risks
About 30%-40% of EBITDA stems from stable and low-risk regulated electricity distribution networks and district heating operations.	Relatively high exposure to merchant hydro and nuclear power generation (34% of underlying EBITDA), with high sensitivity to volatile power prices.
Leading position in the Swedish power generation market supported by large nuclear fleet and flexible low-cost hydropower generation assets.	Increasing pressure on remuneration on regulated networks, combined with mounting remunicipalization trend in Germany.
Self-financed investment program and moderate dividend policy allowing for debt stabilization in the coming years	Large renewable capital expenditure (capex) program, notably in more risky offshore wind, which exposes Vattenfall to execution risks during the construction phase.
Increased cash contribution from subsidized, long-term contracted renewables (with wind representing about 22% of our 2018 adjusted EBITDA).	
Moderate likelihood of support from the 100% owner, the government of Sweden (AAA/Stable/A-1).	

We expect a stronger performance from merchant power generation activities. Average Nord Pool power prices were about 22% higher in first-quarter 2019 at about €47 per megawatt hour (/MWh) compared with €39/MWh in 2018. Vattenfall did not capture the full price increase during 2018 because of previous hedging contracts signed at low levels, but we expect it will achieve additional earnings from higher prices in 2019 and 2020. Higher prices, the removal of nuclear tax, and higher output from hydro and nuclear will support improvement in credit metrics.

Significant investment efforts in renewables will boost EBITDA over the next two years. We expect the offshore wind farm Horns Rev 3 to be fully commissioned during 2019, with a capacity of 407 MW. In 2019 and 2020, Vattenfall's capex program amounts to Swedish krona (SEK) 56 billion, about SEK32 billion of which is dedicated to growth investments, mainly into wind generation, in line with the group's climate-neutral strategy. We see higher execution risk during the construction phase of offshore wind projects, however, and Vattenfall announced in late March that one of their projects, Vesterhav Syd and Nord (350 MW), has been delayed for roughly two years.

There is some pressure on network activities from lower regulated revenues and remunicipalization in Germany. For the next regulatory period, which starts in 2020 for distribution system operator (DSO) activities in Sweden, the weighted-average cost of capital (WACC) will be lowered to about 3% from 5.85%, resulting in a lower contribution from Vattenfall's network activities (21% of total EBITDA in 2018). In addition, its German network activities are also under pressure following the nonrenewal of its concession in Berlin, which was instead awarded to a municipality-owned company. We continue to expect the EBITDA contribution from regulated activities to remain at about 35% in the next two years, however.

We expect headroom in credit metrics in the coming years. From 2019, we expect funds from operations (FFO) to debt to be sustainably above 22% and debt to EBITDA to be around 3x-4x. In addition, we expect planned capex and dividends to be covered by operating cash flows. In addition, we expect Vattenfall to conclude the divestment of the district heating business in Hamburg during 2019, resulting in €6250 million of proceeds for Vattenfall's 74.9% share.

Outlook: Stable

The stable outlook reflects our assumption that Vattenfall's significant investments in low-risk electricity distribution and district heating networks, and its growing portfolio of wind farms, will translate into solid earnings growth. This should enable the group to maintain a financial risk profile in line with our expectations for the rating. The company's flexibility in making dividend payouts may mitigate any potential operating underperformance. Given the group's significant share of stable cash flows from electricity distribution and district heating, we consider an FFO-to-debt ratio of above 20% appropriate for the rating.

Downside scenario

We could lower the rating if we considered that Vattenfall's position in the power generation business was weakening; for example, if power prices deteriorate or if the planned expansion of the wind portfolio is delayed or unsuccessful. These factors could have negative financial consequences for Vattenfall and, unless countermeasures are implemented, could lead to weakening credit measures such as FFO to debt falling below 20%. We could also downgrade Vattenfall if we see signs of weakening government support; for example, if the government privatized a significant part of its ownership in Vattenfall. However, we consider this to be unlikely over the near-to-medium term.

Upside scenario

We see an upgrade as unlikely, but it could occur if the financial risk profile strengthened, with FFO to debt increasing toward 25% on a sustainable basis. This could occur if power prices strengthen more than we expect.

Our Base-Case Scenario

Assumptions	Key Metrics			
<ul style="list-style-type: none"> The impact of power prices in the Nordic region above €29/MWh will not be fully felt in the near term due to hedges. We assume continued high growth investments in renewables, specifically wind; growth capex comprises almost 60% of total capex, wind about 75% of growth capex. Hamburg district heating will be divested by year-end 2019, generating proceeds of €625 million. We expect Vattenfall's 70.4%-owned nuclear facility Ringhals 2 to be decommissioned by the end of 2019, with Ringhals 1 to follow in 2020. The net capacity of Ringhals 2 is about 810 MW and that of Ringhals 1 is 880 MW. We expect Vattenfall to continue operating the Berlin DSO activities during 2019 and 2020. The reduction of Swedish hydro real estate tax over 2017-2020 will continue. The Swedish corporate tax rate will reduce to 20.6% by January 2021 from 21.4% today. We forecast dividends in line with the company's policy of 40%-70% of profit after tax. 				
		2018A	2019E	2020E
	EBITDA (bil. SEK)	34.2	34-35	32-35
	FFO/debt (%)	25.0	24.0-26.0	22.0-24.0
	Debt (bil. SEK)	109.0	105-108	108-112
	Debt/EBITDA (x)	3.2	3-4	3-4
	<p>Note: All figures are S&P Global Ratings-adjusted. A--Actual. E--Estimate. FFO--Funds from operations. SEK--Swedish krona.</p>			

Base-case projections

EBITDA around SEK32 billion-SEK 35 billion in coming years. Given the increasing power prices, we expect Vattenfall to maintain stable EBITDA, with somewhat lower margins.

We expect Vattenfall to invest about SEK27 billion annually in the coming two years. We estimate that capex in 2019 to 2020 will remain high at around SEK27 billion annually, resulting in debt to EBITDA at about 3x-4x and FFO to debt at 24% to 26% in 2019. In 2020, we expect earnings to deteriorate because of the decommissioning of Ringhals 2 by end of 2019, the divestment of Hamburg district heating in 2019, and lower revenues from Swedish distribution.

Company Description

Vattenfall is one of the largest electricity and heat producers in Europe and is 100% owned by the Swedish state. At year-end 2018, Vattenfall posted sales of about SEK155 billion and EBITDA of about SEK34 billion on an S&P Global Ratings' adjusted basis. Following the sale of the German lignite operations in 2016, Vattenfall's business portfolio is now split between liberalized power generation and supply, mainly in Sweden, the Netherlands, and Germany (34% of 2018 underlying EBITDA), electricity distribution networks in Sweden and Germany (25%), and heat business in

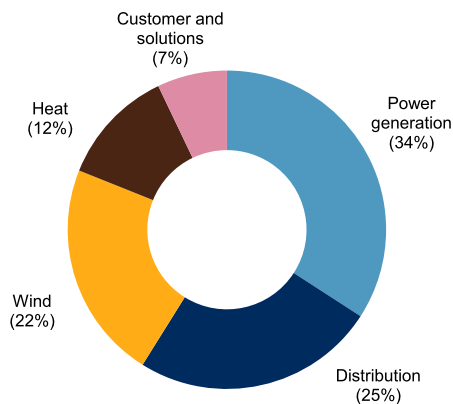
Germany, Sweden, Denmark, and The Netherlands (12%). The company is also expanding its largely subsidized wind generation network (22%). The group generated about 130 terawatt-hours (TWh) of electricity and sold about 20 TWh of heat in 2018.

Vattenfall's generation portfolio comprises about 90 hydro plants (38% of installed capacity in 2018), 10 nuclear power plants (23%), fossil-based power primarily including gas, hard coal and oil (30%), growing capacity from wind (8%) and solar and biomass peat (1%). The group serves about 10 million customers through its power supply activities and is one of Europe's largest producers and distributors of heat. Its heating network activities serve another 2.1 million customers, mainly in growing metropolitan areas in northwestern Europe, including Berlin, Amsterdam, and Uppsala.

Its power distribution network activities are in Sweden and Germany (Berlin) and comprised 170,000 kilometers of network lines in 2018. The regulatory asset base was SEK55.5 billion at year-end 2018.

Chart 1

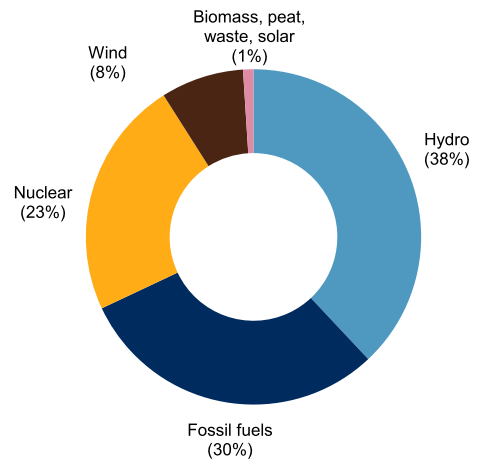
Vattenfall Operating Segments As % Of Underlying EBITDA



Note: Data pertains to continuing operations excluding lignite operations. Underlying operating profit before amortization and impairment, excluding items affecting comparability. Source: 2018 annual report. Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

Chart 2

Vattenfall Power Generation Capacity



Source: 2018 annual report. Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

Business Risk: Strong

Vattenfall has maintained its position as a leading electricity generator in northern European countries, especially in Sweden, where it generates about 50% of all electricity and its market share of electricity sales is nearly 30%. In the Nordics, Vattenfall has an attractive asset mix, primarily consisting of low-cost and flexible hydropower and nuclear power, both of which are well placed on the merit order.

In our view, the overall business mix significantly improved after the company divested its lignite assets. Rather than conventional generation dominating the portfolio, regulated activities (distribution and heat) now represent about 37% of underlying EBITDA. This, combined with a significant expansion into wind, has increased the stability of the company's earnings. Wind power represents more than half of growth investments and roughly 80% of wind projects are under known, locked-in subsidy schemes that will last the next 10 years.

However, we acknowledge that Vattenfall's contribution from regulated activities could reduce in coming years. This is partly because of the City of Hamburg exercising its call to acquire the district heating from Vattenfall for €625 million. We expect the transaction to close during 2019. This segment's contribution to Vattenfall's EBITDA amounts to about SEK710 million annually (2% of total EBITDA in 2018).

We also expect a lower contribution from Vattenfall's DSO activities in Sweden because of the lower WACC for the new regulatory period starting 2020. The WACC is expected to be about 3% compared with 5.85% currently. We also understand that DSOs in Sweden will not be able to carry forward uncollected revenues from 2012-2015, which could result in lower revenues from distribution.

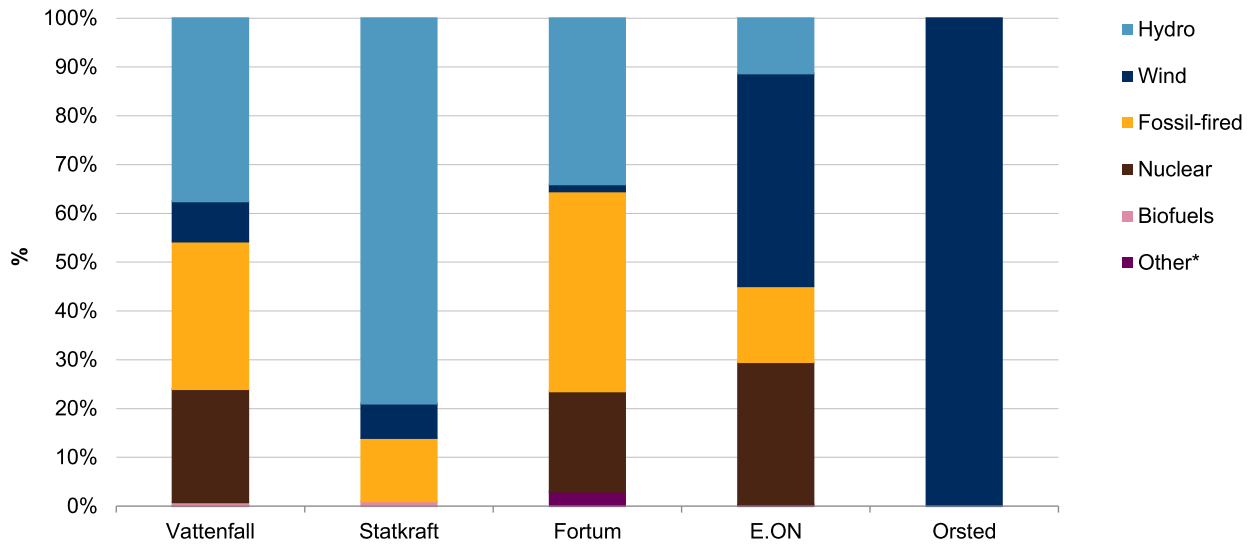
The third possible cause of regulated activities making a lower revenue contribution is Berlin's decision not to renew Vattenfall's concession for the DSO activities in the city, which could reduce EBITDA by about SEK1.9 billion (6% of total EBITDA in 2018). However, we understand that a transfer of the assets is not likely in coming two years, as Vattenfall has appealed the decision.

A material recovery in Nord Pool power prices, which reached historical lows in early 2016, has affected cash flows in the power generation business. Nordic system spot prices averaged €44/MWh on average during 2018, 50% higher than average prices at €29/MWh in 2017. The higher price level has continued during 2019, with average prices at €47/MWh for the first three months. These strong price improvements mainly stem from higher fuel and carbon dioxide prices, combined with a lower hydrological balance. Vattenfall has not fully captured the price increases due to the high Nordic hedge ratio of about 70% one-year ahead and with prices at €29/MWh, as per the end of March 2019, compared to a hedge ratio of about 80% at €27/MWh for the corresponding period in 2018.

In the short term, we expect EBITDA from generation and wind to increase as a result of higher power prices. We expect wind to contribute about 24%-26% of total EBITDA by 2020.

Chart 3

Vattenfall Installed Power Capacity Breakdown Versus Rated Nordic Peers



*Including solar power. Source: Company data.

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Peer comparison

Among its Nordic peers, Vattenfall has the strongest market position, followed by Statkraft. Vattenfall is the market leader in the Nordic region (Sweden in particular) and has a strong position in both Germany (at least currently) and the Netherlands. Vattenfall's portfolio is the most geographically diversified among its peers, although it has become less so over the past few years, and we expect the German presence to shrink because of forced divestments. Vattenfall also has the most diverse portfolio by procurement, with a mix between renewables (mainly low cost flexible hydro and wind), low cost nuclear, and thermal (coal and gas).

Table 1

Vattenfall AB -- Peer Comparison				
Industry Sector: Energy				
	Vattenfall AB	Fortum Oyj	Orsted A/S	Statkraft AS
Rating as of June 3, 2019	BBB+/Stable/A-2	BBB/Negative/A-2	BBB+/Stable/A-2	A-/Stable/A-2
--Fiscal year ended Dec. 31, 2018--				
(Mil. SEK)				
Revenues	156,824.0	53,335.9	104,880.9	59,401.6
EBITDA	34,162.0	15,938.7	21,866.7	24,839.4
FFO	27,245.4	13,145.3	14,068.4	19,919.9
Interest expense	4,114.1	2,111.7	3,535.0	1,179.9

Table 1

Vattenfall AB -- Peer Comparison (cont.)				
Cash interest paid	3,218.6	1,837.0	3,208.9	1,222.9
Cash flow from operations	41,693.4	8,353.0	13,864.0	15,014.3
Capital expenditures	21,807.0	5,891.2	19,285.7	4,822.5
Free operating cash flow	19,886.4	2,461.8	(5,421.8)	10,191.9
Discretionary cash flow	16,251.4	(7,478.9)	(11,557.5)	3,944.1
Cash and short-term investments	40,071.0	5,962.4	37,391.1	24,320.5
Debt	109,029.0	69,222.8	22,722.6	16,050.3
Equity	113,513.0	122,880.1	106,993.0	100,493.6
Adjusted ratios				
EBITDA margin (%)	21.8	29.9	20.8	41.8
Return on capital (%)	8.0	5.9	11.0	18.0
EBITDA interest coverage (x)	8.3	7.5	6.2	21.1
FFO cash interest coverage (x)	9.5	8.2	5.4	17.3
Debt/EBITDA (x)	3.2	4.3	1.0	0.6
FFO/debt (%)	25.0	19.0	61.9	124.1
Cash flow from operations/debt (%)	38.2	12.1	61.0	93.5
Free operating cash flow/debt (%)	18.2	3.6	(23.9)	63.5
Discretionary cash flow/debt (%)	14.9	(10.8)	(50.9)	24.6

Financial Risk: Significant

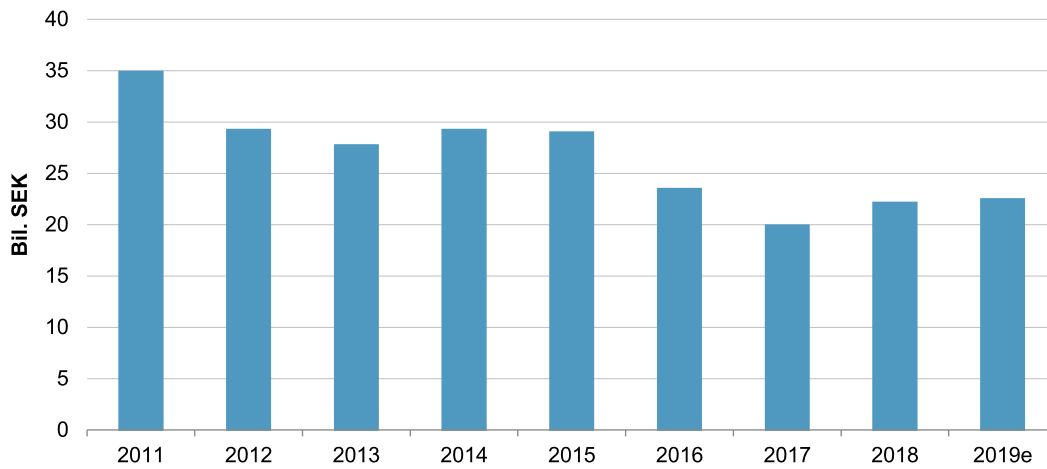
We base our assessment of Vattenfall's financial risk profile on our assumption that adjusted FFO to debt will remain above 20% over the near-to-medium term. Although we anticipate that power prices will rise, we do not expect Vattenfall to capture the full benefit of this in the short term because of its high hedge ratio.

Vattenfall plans capex of SEK56 billion for 2019-2020, of which about 57% will be on growth investments. During the first three months of 2019, the majority of capex went into renewables and 21% into distribution networks. The remainder was split between thermal, nuclear, hydro, and other investments. We expect a similar mix of capex going forward.

We understand that most growth investments over the next five years will be dedicated to renewables. A significant share will go into wind production under different supportive subsidy schemes and Vattenfall will also invest in stable district heating and electricity distribution. We view this as credit positive.

Chart 4

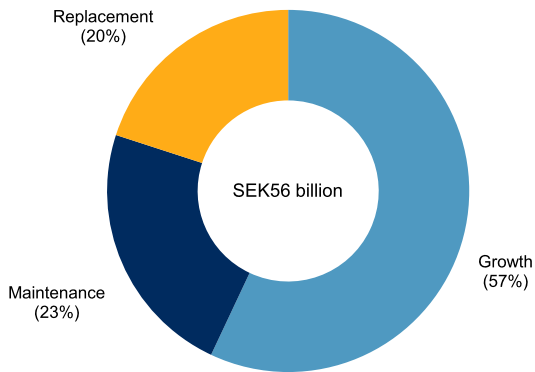
Vattenfall Investment Levels



e--Estimate. SEK--Swedish krona. Source: Annual reports.
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Chart 5

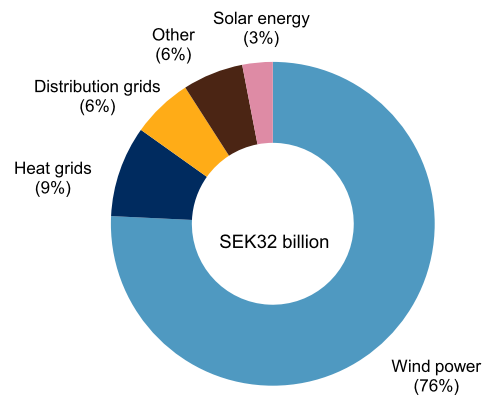
Vattenfall Investment Plan 2019-2020



Source: 2018 annual report.
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Chart 6

Total Growth Investments 2019-2020



Source: 2018 annual report.
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Financial summary

Table 2

Vattenfall AB Financial Summary

Industry Sector: Energy

	--Fiscal year ended Dec. 31--				
	2018	2017	2016	2015	2014
(Mil. SEK)					
Revenues	156,824.0	135,295.0	139,208.0	164,510.0	165,945.0
EBITDA	34,162.0	37,904.5	36,698.5	32,692.0	44,197.0
FFO	27,245.4	29,692.2	34,408.4	27,285.5	36,976.6
Interest expense	4,114.1	7,091.3	7,134.6	7,252.5	8,258.4
Cash interest paid	3,218.6	4,994.3	3,580.1	4,066.5	4,052.4
Cash flow from operations	41,693.4	26,133.2	31,088.4	41,036.5	40,165.6
Capital expenditures	21,807.0	19,573.0	23,024.0	28,232.0	28,202.0
Free operating cash flow	19,886.4	6,560.2	8,064.4	12,804.5	11,963.6
Discretionary cash flow	16,251.4	5,373.2	6,860.9	12,240.5	11,620.5
Cash and short-term investments	40,071.0	26,897.0	43,292.0	44,256.0	45,068.0
Gross available cash	40,071.0	26,897.0	43,292.0	44,256.0	45,068.0
Debt	109,029.0	120,359.3	120,114.3	133,553.6	154,917.5
Equity	113,513.0	103,604.0	93,382.0	125,229.0	133,154.5
Adjusted ratios					
EBITDA margin (%)	21.8	28.0	26.4	19.9	26.6
Return on capital (%)	8.0	10.6	4.5	(8.1)	0.5
EBITDA interest coverage (x)	8.3	5.3	5.1	4.5	5.4
FFO cash interest coverage (x)	9.5	6.9	10.6	7.7	10.1
Debt/EBITDA (x)	3.2	3.2	3.3	4.1	3.5
FFO/debt (%)	25.0	24.7	28.6	20.4	23.9
Cash flow from operations/debt (%)	38.2	21.7	25.9	30.7	25.9
Free operating cash flow/debt (%)	18.2	5.5	6.7	9.6	7.7
Discretionary cash flow/debt (%)	14.9	4.5	5.7	9.2	7.5

FFO--Funds from operations.

Liquidity: Strong

We assess Vattenfall's liquidity position as strong, based on our expectation that the group will maintain liquidity sources that exceed liquidity uses by 1.5x over the near term. We also assume that liquidity sources will exceed uses even if EBITDA were to decrease by 30%, and we understand that Vattenfall's credit facilities are free from onerous financial covenants. We also view Vattenfall as having solid relationships with its banks, a high standing in credit markets, and prudent risk management.

Principal Liquidity Sources	Principal Liquidity Uses
<p>According to our calculations, Vattenfall's liquidity sources as of March 31, 2019, comprised:</p> <ul style="list-style-type: none"> • Available cash and marketable securities of about SEK22.2 billion; • Access to committed credit lines of about SEK21.5 billion; and • Forecast FFO of about SEK26.3 billion. 	<ul style="list-style-type: none"> • Capital expenditures of about SEK28 billion in 2019 and about SEK27 billion in 2020; and • Dividends of about SEK4.6 billion over the coming 12 months.

Debt maturities

Vattenfall has debt maturities of about SEK25 billion in the coming 12 months and about SEK13 billion in the subsequent 12 months.

Government Influence

The ratings on Vattenfall benefit from one notch of uplift, owing to our view of a moderate likelihood of timely and sufficient extraordinary government support for Vattenfall in case of financial distress. This reflects our assessment of Vattenfall's:

- Strong link with the Swedish government, which owns 100% of Vattenfall through the Ministry of Enterprise and Innovation, and the government's influence on the group's high-level strategic decision-making; and
- Limited role for the state, given the group's strong, but not dominant, market position in Sweden, significant exposure to non-Nordic markets, and its operations in a fully liberalized electricity market, which implies that it could conceivably be replaced by a private-sector entity.

Environmental, Social, And Governance

In line with its strategy of becoming climate neutral (generating zero net greenhouse gas emissions) in the Nordic area by 2030, Vattenfall is massively investing in renewables, the bulk of which benefits from a long-term remuneration framework. As a government-owned company, Vattenfall aligns with the Swedish government's environmental and climate goals. However, merchant and fossil-fuel generation still accounts for a significant share of its production (31.6 TWh, or 24% of production in 2018) and its carbon footprint is thus substantial (about 22 million tons). In addition, the company operates four nuclear power plants in Sweden (7.2 GW) and Germany. While German reactors will close in the next five years, Sweden has been more supportive of nuclear and has recently revised its remuneration framework to allow sufficient returns on investment for the life extension of the reactors. The operator is responsible in Sweden for having reliable solutions to manage dismantling and nuclear waste, while in Germany, the responsibility for intermediate and long-term storage has been transferred from nuclear operators to the government.

We believe the company is also exposed to extreme weather conditions, which could affect the operation both of its generation assets and network. In early 2019, a severe snow storm affected its network north of Stockholm, which led to significant outages and as a result exposed the company to penalties and extra costs. Yet the company has a good track record of meeting the regulator's targets on network service quality, and we believe it manages its regulatory environment well.

Issue Ratings - Subordination Risk Analysis

Capital structure

Vattenfall's capital structure consisted of SEK109 billion of unsecured debt as of Dec. 31, 2018.

Analytical conclusions

We rate Vattenfall's senior unsecured debt at the same level as the 'BBB+' long-term issuer credit rating (ICR) because all the debt is issued by the parent company.

We rate Vattenfall's commercial paper program at 'A-2' global scale and 'K-1' Nordic regional scale, which aligns with our 'BBB+' long-term ICR on Vattenfall. We rate Vattenfall's euro medium-term note program (senior unsecured at ICR level and senior subordinated one notch below the ICR), although Vattenfall has not issued any subordinated debt under the program. All senior unsecured debt is rated at ICR level.

Vattenfall's hybrid bonds (SEK19.2 billion), which we assess as having intermediate equity content (50%), are rated 'BB+', two notches lower than the SACP. The difference stems from our deduction from the 'bbb' SACP level of:

- One notch for the notes' subordination; and
- Another notch for payment flexibility to reflect that the deferral of interest is optional.

Reconciliation

Table 3

Reconciliation Of Vattenfall AB Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. SEK)

--Fiscal year ended Dec. 31, 2018--

Vattenfall AB reported amounts

	Debt	Shareholders' equity	EBITDA	Operating income	Interest expense	S&P Global Ratings' adjusted EBITDA	Cash flow from operations	Dividends	Capital expenditure
	88,275.0	88,096.0	34,341.0	17,619.0	3,206.0	34,162.0	41,054.0	3,299.0	22,136.0
S&P Global Ratings' adjustments									
Cash taxes paid	--	--	--	--	--	(3,698.0)	--	--	--
Cash taxes paid - Other	--	--	--	--	--	--	--	--	--
Cash interest paid	--	--	--	--	--	(3,046.0)	--	--	--
Operating leases	4,239.5	--	887.0	254.6	254.6	(254.6)	632.4	--	--
Intermediate hybrids reported as debt	(9,916.0)	9,916.0	--	--	(342.5)	336.0	336.0	336.0	--
Postretirement benefit obligations/deferred compensation	35,417.1	--	31.0	31.0	844.0	--	--	--	--
Accessible cash & liquid investments	(32,039.0)	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	254.0	(254.0)	(254.0)	--	(254.0)
Capitalized development costs	--	--	(75.0)	(30.0)	--	--	(75.0)	--	(75.0)
Dividends received from equity investments	--	--	98.0	--	--	--	--	--	--
Asset retirement obligations	35,617.4	--	--	--	(102.0)	--	--	--	--
Income (expense) of unconsolidated companies	--	--	(320.0)	--	--	--	--	--	--
Nonoperating income (expense)	--	--	--	580.0	--	--	--	--	--
Noncontrolling interest/minority interest	--	15,501.0	--	--	--	--	--	--	--
Debt - Other	(12,565.0)	--	--	--	--	--	--	--	--
EBITDA - Gain/(loss) on disposals of PP&E	--	--	(956.0)	(956.0)	--	--	--	--	--
EBITDA - Derivatives	--	--	156.0	156.0	--	--	--	--	--
D&A - Impairment charges/(reversals)	--	--	--	136.0	--	--	--	--	--

Table 3

Reconciliation Of Vattenfall AB Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. SEK) (cont.)

Total adjustments	20,754.0	25,417.0	(179.0)	171.6	908.1	(6,916.6)	639.4	336.0	(329.0)
S&P Global Ratings' adjusted amounts									
	Debt	Equity	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Dividends paid	Capital expenditures
	109,029.0	113,513.0	34,162.0	17,790.6	4,114.1	27,245.4	41,693.4	3,635.0	21,807.0

Ratings Score Snapshot

Issuer Credit Rating

BBB+/Stable/A-2

Business risk: Strong

- **Country risk:** Very low
- **Industry risk:** Intermediate
- **Competitive position:** Strong

Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: bbb

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb

- **Related government rating:** AAA
- **Likelihood of government support:** Moderate (+1 notch from SACP)

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology And Assumptions: Assigning Equity Content To Hybrid Capital Instruments Issued By Corporate Entities And Other Issuers Not Subject To Prudential Regulation, Jan. 16, 2018

- General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables, Aug. 14, 2017
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: National And Regional Scale Credit Ratings, Sept. 22, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
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Business And Financial Risk Matrix						
Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of June 6, 2019)*

Vattenfall AB

Issuer Credit Rating	BBB+/Stable/A-2
<i>Nordic Regional Scale</i>	--/--/K-1
Commercial Paper	A-2
<i>Nordic Regional Scale</i>	K-1
Junior Subordinated	BB+
Senior Unsecured	BBB+
Subordinated	BBB

Issuer Credit Ratings History

07-Jun-2017		BBB+/Stable/A-2
19-May-2016		BBB+/Negative/A-2
26-Feb-2016		BBB+/Watch Neg/A-2
28-Sep-2015		BBB+/Negative/A-2
24-Jul-2015		A-/Watch Neg/A-2
19-May-2016	<i>Nordic Regional Scale</i>	--/--/K-1
26-Feb-2016		--/Watch Neg/K-1
02-Sep-2010		--/--/K-1

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

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