Fitch Ratings

Fortum Oyj

Ratings

Rating Type	Rating	Outlook	Last Rating Action
Long-Term IDR	BBB	Negative	Affirmed 6 Apr 20
Short-Term IDR	F2		Affirmed 6 Apr 20

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The Negative Outlook on Fortum Oyj's Long-Term Issuer Default Rating (IDR) mainly reflects the execution risk embedded in the company's deleveraging plans after it acquired an additional 23% stake in Uniper SE and the resulting full consolidation of the German utility. According to our expectations, this will lead FFO net leverage to spike to 3.3x in 2020, while market conditions will affect the deleverage pattern mainly through low power prices.

The ratings reflect the company's profitable hydro and nuclear assets, its strong competitive positioning in the combined group's key countries and the management's commitment to the current rating (partially confirmed by already realised disposals). The affirmation also reflects the largely unregulated profile of the combined group's business, its sizeable coal exposure and fairly high starting leverage.

We have tightened Fortum's leverage guidelines by 0.2x, only to mirror the reduction in the company's leverage deriving from Fitch Ratings' change in the approach towards lease transactions (now fully considered as opex with no capitalisation, compared with the previous capitalisation of the rent through a multiple).

Key Rating Drivers

Rating Approach: Fortum now owns 73.4% of Uniper, up from 49.99% before the transactions closed, bringing the total amount invested in Uniper to about EUR6.5 billion. Fortum now fully consolidates Uniper in its accounts and we keep the same approach for rating purposes, due to Uniper's strategic importance for the company and Fortum's representation on Uniper's recently elected supervisory board.

Fortum has ruled out any domination or profit-and-loss transfer agreement or squeeze-out of minority shareholders until end-2021, and we assume no cash-out in this respect throughout the rating horizon. A sizeable increase of the stake held in Uniper would be credit-negative for Fortum.

Combined Business Profile: Fitch views Uniper's standalone business profile as riskier than Fortum's due to its higher proportion of thermal capacity and exposure to CO2 prices, challenges related to coal generation (including decommissioning) and the volatile gas midstream and commodity trading business. The combined installed capacity of the group is about 50GW, of which thermal sources are about 70%. The share of coal in total generation, currently negligible for Fortum, will be about 12% in the combined group.

The enlarged group has a very strong market positioning, in particular in Germany (second-ranked), Nordics (second) and Russia (third), with a sizeable presence also in the UK and Benelux. The group has the third-largest CO2 free generation fleet in Europe, and a sizeable gas fleet, which we believe will be important in the European energy transition.

Focus on Generation: Both Uniper's and Fortum's EBITDA (as reported to investors) for 2019 was EUR1.5 billion-1.8 billion, so they have a broadly similar weight in the assessment of the combined business risk profile. Uniper's generation business is much more exposed to thermal sources than Fortum's, a factor which is mitigated by some long-term contracts in Germany. The business in Russia, which contributes about EUR800 million EBITDA based on our estimates, has a similar fundamental risk for both companies, with margins derived mainly from capacity-supply agreements.

Applicable Criteria and Related Research

Fitch Removes Fortum's Ratings from Watch Negative; Affirms at 'BBB' with a Negative Outlook (April 2020)

Corporate Rating Criteria (May 2020)

Government-Related Entities Rating Criteria (November 2019)

Corporates Notching and Recovery Ratings Criteria (October 2019)

Short-Term Ratings Criteria (March 2020)

The Road Back: Post-Lockdown Assumptions for Global Corporates (June 2020)

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Uniper's commodity trading creates earnings volatility and Fitch does not assign any debt capacity to this business at investment-grade level. Electricity generation accounts for about 75% of the combined group's EBITDA, with the rest related to supply-and-trading and city solutions (mainly district heating and waste). We estimate a share of 30%-35% of contracted and incentivised EBITDA for the group.

ESG Influence: We have updated the Environmental, Social and Governance (ESG) relevance score for Energy and Fuel Management to 4, owing a high amount of coal in the generation mix - due to the Uniper acquisition - and this leads to higher exposure to carbon and commodity prices. This is one of the factors that led to a moderate tightening of the guidelines for the combined group (negative sensitivity at 3.2x, from 3.8x for Fortum standalone).

We are now updating the guidelines to 3.0x, but only to reflect the change in our approach to leases; therefore there is no impact on the company's headroom.

Deleveraging Capacity: We expect Fortum's funds from operations (FFO) net leverage to peak at 3.3x in 2020, due to the Uniper stake acquisition, partially compensated for by the cash-in of EUR780 million related to the sale of a district heating network in Finland and Nordics wind business. We expect the company to focus on deleveraging, and, in our rating case, we assume that Fortum will sell the assets under strategic review (district heating networks in Baltics, Poland and Jarvenpaa (Finland)), with leverage returning below our negative sensitivity of 3.0x in 2022.

Weak Price Environment: Our rating case takes into account recent electricity demand and price turmoil. This volatility in particular will hit price-taker technologies, such as hydro and nuclear, which are the largest producers for Fortum. This is mitigated by hedging positions at end-March 2020, covering 85% of 2020 output for Fortum and 95%-100% for Uniper; this decreases, respectively, to 50% and 55%-70% for 2021.

We believe the current economic crisis increases downside risks to our rating case, potentially through pressure on working capital and delays in concluding the strategic review of district heating networks. Our rating case does not envisage any major problems in operating the asset base. The management has the flexibility to counterbalance the impact of a particularly harsh market, for example through growth-capex postponement (we include an average of EUR1.1 billion capex in 2020-2022), the sale of additional assets, cost-cutting and dividends revision.

Growth Plans: Fortum's growth focuses mainly on renewables (about EUR200 million expected in 2020); the business model foresees the development of assets and the retention of a minority stake on-balance sheet, to take advantage of the company's technical know-how while limiting capital deployment. Uniper's plan foresees growth capex of more than EUR1.5 billion cumulatively in 2020-2022, related to some legacy projects (including the Datteln 4 coal-fired plant in Germany), the modernisation of the Russian fleet and the upgrade of some German thermal plants.

Stable 1Q20 Performance: Power prices dropped significantly on the back of an exceptionally mild and rainy winter as well as low commodity prices. However, Fortum's hedging position kept generation earnings stable with group EBITDA amounting to EUR543 million for 1Q20 (EUR545 million for 1Q19). Uniper posted strong results due to lower commodity prices and solid hedging position, with total EBITDA amounting to EUR811 million in 1Q20 (EUR356 million for 1Q19).

No GRE Impact: Fortum is 50.8%-owned by Finland (AA+/Stable). We assess all factors under our *Government-Related Entities (GRE) Ratings Criteria* as 'Weak' or 'Moderate', resulting in no uplift to Fortum's ratings.

Financial Summary

(EURm)	Dec 18	Dec 19	Dec 20F	Dec 21F
Gross revenue	5,242	5,447	86,161	87,884
Operating EBITDA margin (%)	29.1	32.0	3.1	3.0
FFO margin (%)	28.1	30.6	2.4	2.2
FFO interest coverage (x)	9.5	10.3	10.7	9.3
FFO net leverage (x)	3.4	2.8	3.3	3.0

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

Fortum's share of regulated and contracted income is among the lowest, compared with the wider top European utilities peer group. Fortum's good-quality fleet of mainly hydro and nuclear plants will weaken as a consequence of Uniper's large thermal exposure.

Among Nordic peers, Statkraft AS (BBB+/Stable) benefits from its long-term contracts and low-cost hydro asset base as well as a one-notch uplift for sovereign support. EDP - Energias de Portugal S.A. (BBB-/Positive) has a higher debt capacity due to a more defensive business mix, with networks and contracted renewables making up most activity, partially offset by a mix of weaker countries. EDP's lower rating is entirely due to higher leverage (on adjusted FFO basis 4.5x on average versus 3.2x for Fortum).

Navigator Peer Comparison

Issuer		Business profile						Financial profile		
	IDR/Outlook	Operating Environment	Management and Corporate Governance	Position and Cash Flow Profile	Regulation	Market Trends and Risks	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility
Alperia SpA	BBB/Sta	bbb+	bbb	bbb	a-	bbb	a-	bbb-	bbb+	a-
EDP	BBB-/Pos	a-	a-	bbb	bbb	bbb	a-	bbb	bbb-	bbb-
Fortum Oyj	BBB/Neg	aa-	a-	bbb-	a	bbb	bbb+	bbb	bbb	bbb+
RWE AG	BBB/Sta	aa	a-	bbb	bbb	bbb	bbb	bbb-	a	a-
Statkraft AS	BBB+/Sta	aa	a-	bbb-	a-	bbb	a-	bbb-	bbb+	bbb

Source: Fitch Ratings. Importance: Higher, Moderate, Lower

Issuer		Business profile						Financial profile		
Name	IDR/Outlook	Operating Environment	Management and Corporate Governance	Position and Cash Flow Profile	Regulation	Market Trends and Risks	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility
Alperia SpA	BBB/Sta	1.0	0.0	0.0	2.0	0.0	2.0	-1.0	1.0	2.0
EDP	BBB-/Pos	3.0	3.0	1.0	1.0	1.0	3.0	1.0	0.0	0.0
Fortum Oyj	BBB/Neg	5.0	2.0	-1.0	3.0	0.0	1.0	0.0	0.0	1.0
RWE AG	BBB/Sta	6.0	2.0	0.0	0.0	0.0	0.0	-1.0	3.0	2.0
Statkraft AS	BBB+/Sta	5.0	1.0	-2.0	1.0	-1.0	1.0	-2.0	0.0	-1.0

Source: Fitch Ratings. Worse positioned than IDR, In line with IDR, Better positioned than IDR

Rating Sensitivities

Developments That May, Individually or Collectively, Lead to Positive Rating Action/ Upgrade

Rating upside is limited due to risks related to the integration of the Uniper business and the incremental debt related to the acquisition. However, we could upgrade the rating with FFO net leverage lower than 1.5x and FFO interest coverage above 6.0x, all on a sustained basis.

We would affirm the rating:

- If the company is on track to achieve FFO net leverage below 3.0x on a sustained basis;
- If FFO interest coverage is above 5.0x on a sustained basis; and
- In the absence of significant deterioration of the political, economic or regulatory environment in Russia or significant structural decline in Nord Pool power prices.

Developments That May, Individually or Collectively, Lead to Negative Rating Action/ Downgrade

- FFO net leverage above 3.0x on a sustained basis, FFO interest coverage cover below 5.0x on a sustained basis;
- Significant deterioration of the political, economic or regulatory environment in Russia or significant structural decline in Nord Pool power prices; and
- Problems with Uniper's integration leading to a change in our view of a consolidated perimeter for the ratings or a change in debt capacity.

Liquidity and Debt Structure

Strong Liquidity: Cash and cash equivalents were EUR4 billion at end-March 2020, and with total committed undrawn credit lines of about EUR6.4 billion (of which EUR2.8 billion matures in 2021 and the rest in 2023-2024), total available liquidity was EUR10.4 billion for the combined group. This compares with short-term maturities of about EUR1.2 billion (excluding lease liabilities).

We expect free cash flow to remain neutral for the current year due to adequate hedging positions of both companies, despite the weak power prices. Uniper was consolidated into Fortum's accounts from end-March 2020.

ESG Considerations

Fortum Oyj has an ESG Relevance Score of 4 for Energy Management due to an increased share of coal-fired power generation subject to carbon and commodity prices, which has a negative impact on the credit profile, and is relevant to the ratings in conjunction with other factors.

Except for the matters discussed above, the highest level of ESG credit relevance, if present, is a score of 3. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or to the way in which they are being managed by the entity.

For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Liquidity and Debt Maturity Scenario with No Refinancing

Liquidity Analysis

(EUR Mil.)	2020F	2021F
Available Liquidity		
Beginning Cash Balance	1,432	111
Rating Case FCF After Acquisitions and Divestitures	(2,573)	1,222
March 2020 drawdown under acquisition facilities	*2,000*	
Total Available Liquidity (A)	**859**	**1,332**
Liquidity Uses		
Debt Maturities	(551)	(526)
Uniper's debt maturities (excl. lease liabilities)	(197)	(46)
Total Liquidity Uses (B)	**(748)**	**(572)**
Liquidity Calculation		
Ending Cash Balance (A+B)	111	760
Revolver Availability[a]	6,400	3,600
Ending Liquidity	**6,511**	**4,360**
Liquidity Score (x)	9.5	9.4

F – Forecast.

Source: Fitch Ratings, Fitch Solutions

Scheduled Debt Maturities (Fortum)	**Original**
(EUR Mil.)	**12/31/2019**
2020	551
2021	526
2022	1,036
2023	1,094
2024	303
Thereafter	3,071
Total	**6,581**

[a]Includes EUR 1.8bn credit facilities of both Fortum and Uniper maturing in 2023, and an additional EUR 2.8bn facility for Fortum maturing in 2021

Source: Fitch Ratings, Fitch Solutions

Key Assumptions

Fitch's Key Assumptions Within Our Rating Case for the Issuer

- EBITDA (excluding IFRS 16 impact) of the new group of EUR2.6 billion-2.7 billion in 2020-2023
- Annual capex at about EUR1.1 billion on average in 2020-2022
- Disposal of assets currently under strategic review and other non-core assets
- Dividends distributed by Fortum at about EUR1 billion per year
- Minority dividends related to Uniper of about EUR150 million-300 million

Financial Data

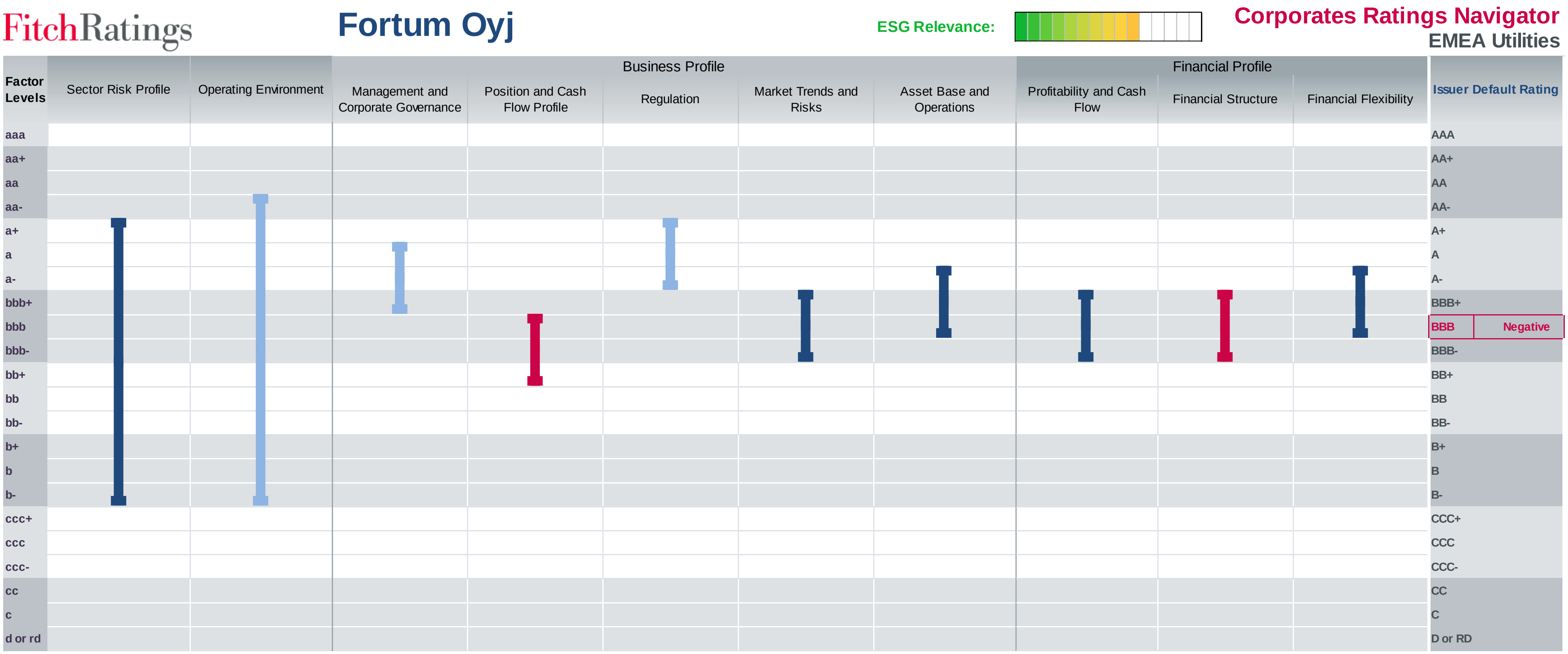
	Historical			Forecast		
(EURm)	**Dec 17**	**Dec 18**	**Dec 19**	**Dec 20F**	**Dec 21F**	**Dec 22F**
Summary income statement						
Gross revenue	4,520	5,242	5,447	86,161	87,884	89,642
Revenue growth (%)	24.4	16.0	3.9	1,481.8	2.0	2.0
Operating EBITDA (before income from associates)	1,275	1,524	1,745	2,702	2,635	2,619
Operating EBITDA margin (%)	28.2	29.1	32.0	3.1	3.0	2.9
Operating EBITDAR	1,308	1,547	1,765	2,860	2,793	2,777
Operating EBITDAR margin (%)	28.9	29.5	32.4	3.3	3.2	3.1
Operating EBIT	811	988	1,170	1,539	1,560	1,529
Operating EBIT margin (%)	17.9	18.8	21.5	1.8	1.8	1.7
Gross interest expense	-180	-148	-167	-214	-228	-216
Pretax income (including associate income/loss)	1,111	1,040	1,708	1,964	1,599	1,472
Summary balance sheet						
Readily available cash and equivalents	3,790	564	1,432	2,520	1,208	2,564
Total debt with equity credit	4,885	6,093	6,580	9,997	7,464	7,453
Total adjusted debt with equity credit	5,149	6,277	6,740	11,261	8,728	8,717
Net debt	1,095	5,529	5,148	7,477	6,256	4,889
Summary cash flow statement						
Operating EBITDA	1,275	1,524	1,745	2,702	2,635	2,619
Cash interest paid	-187	-171	-177	-214	-228	-216
Cash tax	-83	-94	-165	-342	-393	-320
Dividends received less dividends paid to minorities (inflow/(out)flow)	58	61	216	-58	-89	-187
Other items before FFO	-187	131	21	-22	-35	-73
Funds flow from operations	911	1,474	1,669	2,067	1,891	1,824
Ffo margin (%)	20.2	28.1	30.6	2.4	2.2	2.0
Change in working capital	81	-670	323	100	50	-46
Cash flow from operations (Fitch defined)	992	804	1,992	2,167	1,941	1,778
Total non-operating/non-recurring cash flow	0	0	0			
Capital expenditure	-657	-579	-802			
Capital intensity (capex/revenue) (%)	14.5	11.0	14.7			
Common dividends	-977	-977	-977			
Free cash flow	-642	-752	213			
Net acquisitions and divestitures	-223	-3,791	88			
Other investing and financing cash flow items	46	-81	390	244	0	0
Net debt proceeds	-440	1,313	160	3,417	-2,533	-11
Net equity proceeds	0	0	0	0	0	0
Total change in cash	-1,259	-3,311	851	1,088	-1,311	1,356
Leverage ratios						
Total net debt with equity credit/operating EBITDA (x)	0.8	3.5	2.6	2.8	2.5	2.0
Total adjusted debt/operating EBITDAR (x)	3.8	3.9	3.4	4.0	3.2	3.4
Total adjusted net debt/operating EBITDAR (x)	1.0	3.6	2.7	3.1	2.8	2.4
Total debt with equity credit/operating EBITDA (x)	3.7	3.8	3.4	3.8	2.9	3.1
FFO adjusted leverage (x)	4.7	3.8	3.7	4.6	3.8	4.0
FFO adjusted net leverage (x)	1.2	3.5	2.9	3.6	3.3	2.8
FFO leverage (x)	4.6	3.8	3.6	4.4	3.5	3.7
FFO net leverage (x)	1.0	3.4	2.8	3.3	3.0	2.4
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-1,857	-5,347	-1,691	-4,740	-719	-411
Free cash flow after acquisitions and divestitures	-865	-4,543	301	-2,573	1,222	1,367
Free cash flow margin (after net acquisitions) (%)	-19.1	-86.7	5.5	-3.0	1.4	1.5
Coverage ratios						
FFO interest coverage (x)	5.7	9.5	10.3	10.7	9.3	9.5
FFO fixed charge coverage (x)	5.0	8.5	9.3	6.6	5.9	5.9
Operating EBITDAR/interest paid + rents (x)	6.2	8.3	10.1	7.5	7.0	6.9
Operating EBITDA/interest paid (x)	7.1	9.3	11.1	12.4	11.2	11.3
Additional metrics						
CFO-capex/total debt with equity credit (%)	6.9	3.7	18.1	10.3	9.4	11.3
CFO-capex/total net debt with equity credit (%)	30.6	4.1	23.1	13.8	11.2	17.3

Source: Fitch Ratings, Fitch Solutions

How to Interpret the Forecast Presented

The forecast presented is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

Ratings Navigator



FitchRatings

Fortum Oyj

Corporates Ratings Navigator
EMEA Utilities

Operating Environment

aa	Economic Environment	a	Strong combination of countries where economic value is created and where assets are located.
aa-	Financial Access	aa	Very strong combination of issuer-specific funding characteristics and the strength of the relevant local financial market.
	Systemic Governance	aa	Systemic governance (eg rule of law, corruption, government effectiveness) of the issuer's country of incorporation consistent with 'aa'.
b-			
ccc+			

Management and Corporate Governance

a+	Management Strategy	bbb	Strategy may include opportunistic elements but soundly implemented.
a	Governance Structure	a	Experienced board exercising effective checks and balances. Ownership can be concentrated among several shareholders.
a-	Group Structure	a	Group structure has some complexity but mitigated by transparent reporting.
bbb+	Financial Transparency	a	High-quality and timely financial reporting.
bbb			

Position and Cash Flow Profile

bbb+	Market Presence and Integration	bbb	Top-tier position in at least one market. Partially integrated (typically including generation, distribution and supply).
bbb	Earnings from Regulated Network Assets	b	Minimal EBITDA comes from high-quality regulated networks or quasi-regulated assets.
bbb-	Quasi-Regulated Earnings	bbb	10%-20% of EBITDA comes from quasi-regulated assets or from long-term contracted sales with creditworthy counterparties.
bb+			
bb			

Regulation

aa-	Regulatory Framework and Policy Risk	a	Transparent frameworks with strong track record and multi-year predictable tariffs set by independent regulators; little political risk.
a+	Cost Recovery and Risk Exposure		n.a.
a			
a-			
bbb+			

Market Trends and Risks

a-	Fundamental Market Trends	bbb	Markets with emerging structural challenges.
bbb+	Generation and Supply Positioning	bbb	Average position in the merit order; short term hedging. Generation largely balanced with medium position in supply and services.
bbb	Customer Base and Counterparty Risk	a	Economy of area served provides structurally stable background; low counterparty risk; high collection rates for supply operations.
bbb-			
bb+			

Asset Base and Operations

a	Asset Quality	a	High asset quality likely to benefit opex and capex requirements compared with peers.
a-	Asset Diversity	bbb	Partial diversification by geography, generation source, supplied product.
bbb+	Carbon Exposure	bbb	Energy production balanced between clean and thermal sources; medium carbon exposure (< 450gCO2/kWh).
bbb			
bbb-			

Profitability and Cash Flow

a-	Free Cashflow	bbb	Structurally neutral to negative FCF across the investment cycle.
bbb+	Volatility of Profitability	bbb	Stability and predictability of profits in line with utility peers.
bbb			
bbb-			
bb+			

Financial Structure

a-	FFO Leverage	bbb	5.0x
bbb+	FFO Net Leverage	bbb	4.5x
bbb			
bbb-			
bb+			

Financial Flexibility

a	Financial Discipline	bbb	Financial policies less conservative than peers but generally applied consistently.
a-	Liquidity		Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb+	FFO Interest Coverage		5.0x
bbb	FX Exposure	bbb	Some FX exposure on profitability and/or debt/cash flow match. Effective hedging.
bbb-			

Credit-Relevant ESG Derivation

Overall ESG

Fortum Oyj has 1 ESG rating driver and 11 ESG potential rating drivers

- Fuel use to generate energy
- Emissions from operations
- Impact of waste from operations
- Plants' and networks' exposure to extreme weather
- Product affordability and access
- Quality and safety of products and services; data security

Showing top 6 issues

key driver	0	issues	5
driver	1	issues	4
potential driver	11	issues	3
not a rating driver	2	issues	2
	0	issues	1

For further details on Credit-Relevant ESG scoring, see page 3.

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

FitchRatings

Fortum Oyj

Corporates Ratings Navigator
EMEA Utilities

Credit-Relevant ESG Derivation

Fortum Oyj has 1 ESG rating driver and 11 ESG potential rating drivers

- Fortum Oyj has exposure to energy productivity risk which, in combination with other factors, impacts the rating.
- Fortum Oyj has exposure to emissions regulatory risk but this has very low impact on the rating.
- Fortum Oyj has exposure to waste & impact management risk but this has very low impact on the rating.
- Fortum Oyj has exposure to extreme weather events but this has very low impact on the rating.
- Fortum Oyj has exposure to access/affordability risk but this has very low impact on the rating.
- Fortum Oyj has exposure to customer accountability risk but this has very low impact on the rating.

Showing top 6 issues

			Overall ESG Scale
key driver	0	issues	5
driver	1	issues	4
potential driver	11	issues	3
not a rating driver	2	issues	2
	0	issues	1

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	3	Emissions from operations	Asset Base and Operations; Profitability and Cash Flow
Energy Management	4	Fuel use to generate energy	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Water & Wastewater Management	2	Water used by hydro plants or by other generation plants; effluent management	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Waste & Hazardous Materials Management; Ecological Impacts	3	Impact of waste from operations	Asset Base and Operations; Profitability and Cash Flow
Exposure to Environmental Impacts	3	Plants' and networks' exposure to extreme weather	Asset Base and Operations; Profitability and Cash Flow

E Scale: 5, 4, 3, 2, 1

Social (S)

General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	3	Product affordability and access	Profitability and Cash Flow; Regulation
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Quality and safety of products and services; data security	Profitability and Cash Flow
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Employee Wellbeing	2	Worker safety and accident prevention	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Exposure to Social Impacts	3	Social resistance to major projects that leads to delays and cost increases	Asset Base and Operations; Profitability and Cash Flow

S Scale: 5, 4, 3, 2, 1

Governance (G)

General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Strategy development and implementation	Management and Corporate Governance
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance
Group Structure	3	Complexity, transparency and related-party transactions	Management and Corporate Governance
Financial Transparency	3	Quality and timing of financial disclosure	Management and Corporate Governance

G Scale: 5, 4, 3, 2, 1

How to Read This Page
ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies the some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

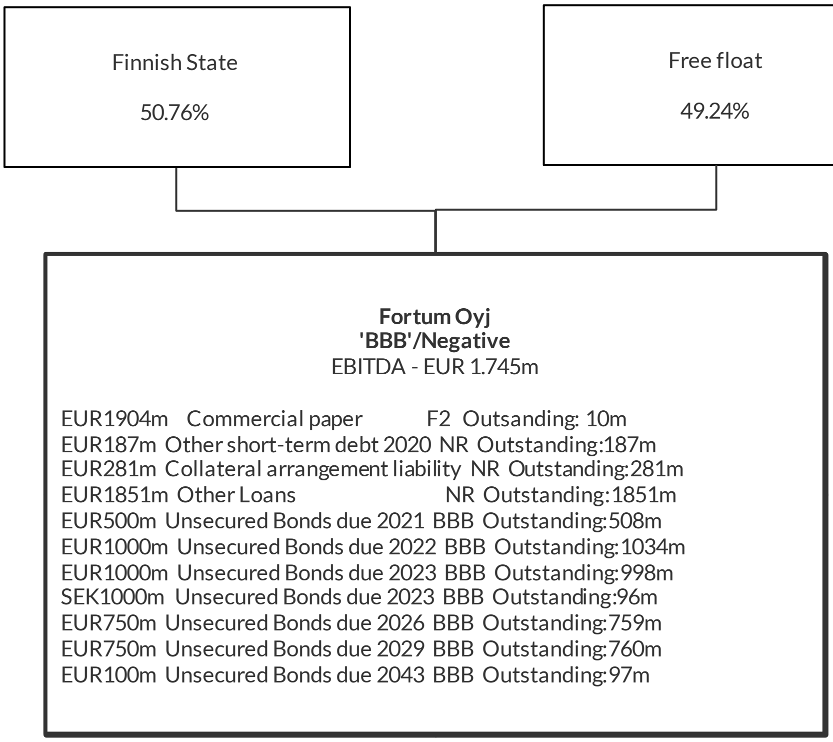
Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Priniciples for Responsible Investing (PRI) and the Sustainability Accounting Standards Board(SASB).

CREDIT-RELEVANT ESG SCALE

How relevant are E, S and G issues to the overall credit rating?

5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

Simplified Group Structure Diagram



Source: Fitch Ratings, Fitch Solutions, Fortum

Peer Financial Summary

Company	IDR	Financial Statement Date	Gross Revenue (EURm)	Operating EBITDAR Margin (%)	FFO Margin (%)	FFO Fixed Charge Coverage (x)	FFO Adjusted Net Leverage (x)
Fortum Oyj	BBB						
	BBB	2019	5,447	32.4	30.6	9.3	2.9
	BBB	2018	5,242	29.5	28.1	8.5	3.5
	BBB+	2017	4,520	28.9	20.2	5.0	1.2
Statkraft AS	BBB+						
	BBB+	2019	4,412	44.6	24.5	9.9	1.4
	BBB+	2018	5,762	33.8	30.0	13.5	0.8
	BBB+	2017	5,454	28.9	16.8	6.6	2.7
Alperia SpA	BBB						
	BBB	2018	1,272	15.8	11.2	9.5	2.6
	BBB	2017	1,124	13.5	12.0	9.1	2.9
		2016	1,224	12.8	9.6	6.7	4.1
RWE AG	BBB						
	BBB	2019	13,125	19.3	12.8	5.7	-0.5
	BBB	2018	12,288	7.0	3.7	2.1	-6.4
	BBB	2017	15,522	8.9	8.0	4.1	-1.4
EDP - Energias de Portugal, S.A.	BBB-						
	BBB-	2018	15,278	22.4	14.9	4.0	4.8
	BBB-	2017	15,746	23.2	12.3	3.0	5.3
	BBB-	2016	14,595	26.2	14.6	3.1	5.5

Source: Fitch Ratings, Fitch Solutions

Reconciliation of Key Financial Metrics

(EUR Millions, As reported)	31 Dec 2019
Income Statement Summary	
Operating EBITDA	1,745
+ Recurring Dividends Paid to Non-controlling Interest	(23)
+ Recurring Dividends Received from Associates	239
+ Additional Analyst Adjustment for Recurring I/S Minorities and Associates	0
= Operating EBITDA After Associates and Minorities (k)	**1,961**
+ Operating Lease Expense Treated as Capitalised (h)	**20**
= Operating EBITDAR after Associates and Minorities (j)	**1,981**
Debt & Cash Summary	
Total Debt with Equity Credit (l)	**6,580**
+ Lease-Equivalent Debt	160
+ Other Off-Balance-Sheet Debt (p)	0
= Total Adjusted Debt with Equity Credit (a)	**6,740**
Readily Available Cash [Fitch-Defined]	1,432
+ Readily Available Marketable Securities [Fitch-Defined]	0
= Readily Available Cash & Equivalents (o)	**1,432**
Total Adjusted Net Debt (b)	**5,308**
Cash-Flow Summary	
Preferred Dividends (Paid) (f)	**0**
Interest Received	29
+ Interest (Paid) (d)	**(177)**
= Net Finance Charge (e)	**(148)**
Funds From Operations [FFO] (c)	**1,669**
+ Change in Working Capital [Fitch-Defined]	323
= Cash Flow from Operations [CFO] (n)	**1,992**
Capital Expenditures (m)	**(802)**
Multiple applied to Capitalised Leases	**8.0**
Gross Leverage	
Total Adjusted Debt / Op. EBITDAR* [x] (a/j)	**3.4**
FFO Adjusted Gross Leverage [x] (a/(c-e+h-f))	**3.7**
Total Adjusted Debt/(FFO - Net Finance Charge + Capitalised Leases - Pref. Div. Paid)	
FFO Leverage [x] ((l+p)/(c-e-f))	**3.6**
(Total Debt + Other Off-Balance-Sheet Debt)/(FFO - Net Finance Charge - Pref. Div. Paid)	
Total Debt With Equity Credit / Op. EBITDA* [x] (l/k)	**3.4**
(CFO-Capex)/Total Debt with Equity Credit (%)	**18.1%**
Net Leverage	
Total Adjusted Net Debt / Op. EBITDAR* [x] (b/j)	**2.7**
FFO Adjusted Net Leverage [x] (b/(c-e+h-f))	**2.9**
Total Adjusted Net Debt/(FFO - Net Finance Charge + Capitalised Leases - Pref. Div. Paid)	
FFO Net Leverage [x] ((l+p-o)/(c-e-f))	**2.8**
(Total Debt + Other Off-Balance-Sheet Debt - Cash)/(FFO - Net Finance Charge - Pref. Div. Paid)	
Total Net Debt / (CFO - Capex) [x] ((l-o)/(n+m))	**4.3**
(CFO-Capex)/Total Net Debt with Equity Credit (%)	**23.1%**

Coverage	
Op. EBITDAR / (Interest Paid + Lease Expense)* [x] (j/(-d+h))	**10.1**
Op. EBITDA / Interest Paid* [x] (k/(-d))	**11.1**
FFO Fixed Charge Cover [x] ((c-e+h-f)/(-d+h-f))	**9.3**
(FFO - Net Finance Charge + Capit. Leases - Pref. Div Paid) / (Gross Int. Paid + Capit. Leases - Pref. Div. Paid)	
FFO Gross Interest Coverage [x] ((c-e-f)/(-d-f))	**10.3**
(FFO - Net Finance Charge - Pref. Div Paid) / (Gross Int. Paid - Pref. Div. Paid)	

* EBITDA/R after Dividends to Associates and Minorities
Source: Fitch, based on information from company reports.

Source: Fitch Ratings, Fitch Solutions, Fortum

Fitch Adjustment Reconciliation

	Reported Values 31 Dec 19	Sum of Fitch Adjustments	Preferred Dividends, Associates and Minorities Cash Adjustments	CORP - Lease Treatment	Adjusted Values
Income Statement Summary					
Revenue	5,447	0			5,447
Operating EBITDAR	1,765	0			1,765
Operating EBITDAR after Associates and Minorities	1,765	216	216		1,981
Operating Lease Expense	0	20		20	20
Operating EBITDA	1,765	(20)		(20)	1,745
Operating EBITDA after Associates and Minorities	1,765	196	216	(20)	1,961
Operating EBIT	1,190	(20)		(20)	1,170
Debt & Cash Summary					
Total Debt With Equity Credit	6,688	(108)		(108)	6,580
Total Adjusted Debt With Equity Credit	6,688	52		52	6,740
Lease-Equivalent Debt	0	160		160	160
Other Off-Balance Sheet Debt	0	0			0
Readily Available Cash & Equivalents	1,432	0			1,432
Not Readily Available Cash & Equivalents	0	0			0
Cash-Flow Summary					
Preferred Dividends (Paid)	0	0			0
Interest Received	29	0			29
Interest (Paid)	(177)	0			(177)
Funds From Operations [FFO]	1,453	216	216		1,669
Change in Working Capital [Fitch-Defined]	323	0			323
Cash Flow from Operations [CFO]	1,776	216	216		1,992
Non-Operating/Non-Recurring Cash Flow	0	0			0
Capital (Expenditures)	(802)	0			(802)
Common Dividends (Paid)	(977)	0			(977)
Free Cash Flow [FCF]	(3)	216	216		213
Gross Leverage					
Total Adjusted Debt / Op. EBITDAR* [x]	3.8				3.4
FFO Adjusted Leverage [x]	4.2				3.7
FFO Leverage [x]	4.2				3.6
Total Debt With Equity Credit / Op. EBITDA* [x]	3.8				3.4
CFO-Capex/Total Debt with Equity Credit (%)	14.6%				18.1%
Net Leverage					
Total Adjusted Net Debt / Op. EBITDAR* [x]	3.0				2.7
FFO Adjusted Net Leverage [x]	3.3				2.9
FFO Net Leverage [x]	3.3				2.8
Total Net Debt / (CFO - Capex) [x]	5.4				4.3
CFO-Capex/Total Net Debt with Equity Credit (%)	18.5%				23.1%

Coverage		
Op. EBITDAR / (Interest Paid + Lease Expense)* [x]	10.0	10.1
Op. EBITDA / Interest Paid* [x]	10.0	11.1
FFO Fixed Charge Coverage [x]	9.0	9.3
FFO Interest Coverage [x]	9.0	10.3

Source: Fitch Ratings, Fitch Solutions, Fortum

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.