Equity story of

FORTUM – For a cleaner world

Investor / Analyst material

April 2020
Disclaimer

This presentation does not constitute an invitation to underwrite, subscribe for, or otherwise acquire or dispose of any Fortum shares.

Past performance is no guide to future performance, and persons needing advice should consult an independent financial adviser.

Any references to the future represent the management’s current best understanding. However the final outcome may differ from them.
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**Fortum at a glance**

**Description of Fortum**
- A leading clean-energy company across the Nordic region, the Baltic countries, Poland, and Russia
- A circular economy champion, providing solutions for sustainable cities, including waste, recycling, and biomass
- Rated BBB/CreditWatch Negative and BBB/Rating Watch Negative by S&P and Fitch respectively
- In 2018, Fortum closed its tender offer to shareholders in Uniper (holding of 49.99% of the outstanding shares and voting rights as of 31.12.2018), in 2020 additional >20% stake to be closed

**Key shareholders**
- Listed on the Helsinki Stock Exchange since 1998
- Market capitalisation of ~EUR 12bn
- Finnish State is a majority owner

**Operations by business segment**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>50%</td>
</tr>
<tr>
<td>Consumer Solutions</td>
<td>8%</td>
</tr>
<tr>
<td>City Solutions</td>
<td>17%</td>
</tr>
<tr>
<td>Russia</td>
<td>25%</td>
</tr>
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</table>

**Production by source**

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>37%</td>
</tr>
<tr>
<td>Nuclear power</td>
<td>31%</td>
</tr>
<tr>
<td>Power</td>
<td>76.3 TWh</td>
</tr>
<tr>
<td>Hydropower</td>
<td>26%</td>
</tr>
<tr>
<td>Coal</td>
<td>18%</td>
</tr>
<tr>
<td>Waste</td>
<td>10%</td>
</tr>
<tr>
<td>Biomass</td>
<td>9%</td>
</tr>
<tr>
<td>Heat</td>
<td>26.4 TWh</td>
</tr>
<tr>
<td>Peat</td>
<td>1%</td>
</tr>
<tr>
<td>Others</td>
<td>2%</td>
</tr>
</tbody>
</table>

Note: All data as of FYE 2019 unless otherwise stated, Uniper will be consolidated from Q2/2020 onwards

(1) Comparable EBITDA defined as operating profit plus depreciation and amortisation less items affecting comparability
Fortum’s geographical footprint

**Nordic countries**
- Power generation: 45.5 TWh
- Heat sales: 5.9 TWh
- Electricity customers: 2.3 million

**Russia**
- PAO Fortum
  - Power generation: 29.3 TWh
  - Heat sales: 16.9 TWh

**Key figures 2019**
- Sales: EUR 5.4 bn
- Comparable EBITDA: EUR 1.8 bn
- Total assets: EUR 23 bn
- Personnel: 8,200

**Poland**
- Power generation: 0.6 TWh
- Heat sales: 3.3 TWh

**Baltic countries**
- Power generation: 0.7 TWh
- Heat sales: 1.5 TWh

**Sales by market area 2019**
- Poland: 7%
- Russia: 20%
- Other: 4%
- Nordics: 69%
- EUR 5.4 bn

Note: Ranking based on year 2018 pro forma figures
Source: Fortum, company data, shares of the largest actors
Three main drivers are shaping the future electricity markets

**Climate and Environment**
- Decarbonisation to reach Paris agreement targets
- Electrification in heating, transportation and key industrial processes
- Resource efficiency

**Politics and Regulation**
- National and international interests
- Market models
- Emission trading
- Geopolitical uncertainty

**Technology Development**
- Solar and wind
- Digitalisation and artificial intelligence
- Short-term and seasonal storage
- E-mobility ecosystem
- Demand response
Europe needs to eliminate CO₂ emissions to reach climate goals – this requires actions from all sectors

<table>
<thead>
<tr>
<th>Source</th>
<th>Sector</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
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<tbody>
<tr>
<td>Coal</td>
<td>Power</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>Transport¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Gas</td>
<td>Industry²</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Buildings³</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Others⁴</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Greenhouse gas emissions

- MtCO₂-eq

Sources: EEA, IEA, Fortum
¹ including international aviation and marine
² iron & steel and chemicals are among the biggest contributors
³ residential and commercial heating & cooling
⁴ non-energy related emissions: industrial processes and product use, waste management, agriculture, fugitive emissions
The decades of electricity will affect several sectors – and Fortum is well positioned for decarbonisation

<table>
<thead>
<tr>
<th>Sector</th>
<th>Future solutions, examples</th>
<th>Fortum’s current offering, examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>CO₂-free generation, hydrogen, batteries, demand response</td>
<td>Nuclear, hydro, solar, wind</td>
</tr>
<tr>
<td>Transport</td>
<td>Electric vehicles, hydrogen/biofuels for heavy transport</td>
<td>E-mobility, pyrolysis</td>
</tr>
<tr>
<td>Heating &amp; cooling</td>
<td>Low-CO₂ DH/CHP, heat pumps, hydrogen</td>
<td>Biofuel, waste-to-energy DH/CHP</td>
</tr>
<tr>
<td>Industry</td>
<td>Electrified processes, hydrogen, resource efficiency, CCS</td>
<td>B2B solutions</td>
</tr>
<tr>
<td>Other</td>
<td>Recycling, biomaterials (e.g. fractioning)</td>
<td>Plastic recycling</td>
</tr>
</tbody>
</table>

**Global climate challenge** (indicative)

- **4°C**
- **1.5°C**

**Electricity demand** (2018-2050)

- +
- +++

**DH/CHP** = District heating/combined heat and power

**CCS** = Carbon capture and storage
Building the utility of the future

FUTURE UTILITY

Power-to-Gas
- Sustainable hydrogen production
- Synthetic “clean” gas production

Hydrogen and methane for traffic and industrial use
- Hydrogen, methane and excess heat

Sustainable materials
- Recycling
- Energy recovery

CO₂-sink
- Carbon capture and storage
- Carbon capture and utilisation

CO₂-sink

Electricity

Decarbonising power and heat generation

Customer solutions

Bio economy
- Traffic fuels
- Bio-based material production

Raw material

Utility Today

Electricity

Heat
Volatility and uncertainty in the European power market increases the value of flexible assets

- Intermittent renewables
- Nuclear and coal closures
- Increasing role of gas
- Supply-demand balance
- Increased interconnection between Nordics and Continent
- Commodity and CO₂ prices
- Weather conditions
The MSR introduces tightness to carbon market

Linear reduction factor (LRF) tightens the market

- Linear reduction factor (LRF) is the percentage of baseline supply\(^1\) by which the annual supply of allowances (cap) is reduced every year. LRF is set at
  - 1.74% for 2013-2020 (equals to a reduction of 38 MtCO\(_2\)/year)
  - 2.2% for 2021-2030 (equals to a reduction of 48 MtCO\(_2\)/year)
- In total, emissions are set to decrease by 43% by 2030 vs. 2005
- Next LRF review is scheduled for 2024
- 3.03% LRF from 2030 onwards would deliver net zero emissions by 2050

Market stability reserve restores scarcity by reducing future auction volumes

- When TNAC\(^2\) > 833 Mt, MSR deducts 24% of the TNAC from the auction volume each year placing them into the reserve during 2019-2023
  - MSR rate is 12% during 2024-2030
  - When TNAC < 400 Mt, MSR releases 100 million EUAs annually from the reserve adding them to future auctions
  - 900 million back loaded allowances from 2014-2016 will be transferred into the MSR in 2019-2020
  - As from 2023, allowances in MSR above the total number of allowances auctioned during the previous year will be cancelled
  - Next MSR review is scheduled in 2021

Abatement from coal to gas switching depends on coal and gas prices, together represented by a switching range

- CO\(_2\) price has almost quadrupled since November 2017, when the final decision was reached on the future EU ETS rules, including the intake rate of the Market Stability Reserve, which became operational in January 2019
- Market tightness forces the EUA market to find ways to reducing demand, including by coal-to-gas switching, making the relative gas/coal price an important price anchor for CO\(_2\)
- Political risks also continue to play a role in EUA prices, with developments around Brexit and national coal phase-out policies in particular being closely watched

\(^1\) Average annual total quantity of allowances released in 2008-2012.

\(^2\) TNAC = total number of allowances in circulation = supply – (demand + allowances in the MSR). According to the latest publication May 15, 2018 the TNAC corresponds to 1655 million allowances.

Energy market transition
Several Western European countries exiting coal over the next decade

- France to phase out coal from power sector at latest in 2022
- United Kingdom to exclude coal condense from capacity market by capping allowed emissions from 2025
- Netherlands’ new government aims at exit by 2030, regulation not yet in place
- Poland: investments in new coal generation, after 2025 will be based on CHP or other technologies, which will allow the emission standards on the level of 450kg CO₂ per MWh of generated energy
- Germany’s coal phaseout law was agreed by the cabinet in January and currently awaits for parliamentary approval
  - By end-2022, only 15 GW of hard coal and 15 GW of lignite is allowed in the market, compared to 21 GW and 18 GW at end-2019
    - By end-2030, 8 GW of hard coal and 9 GW of lignite allowed in the market
    - Full coal exit by end-2038, with an option for an early exit already in 2035
  - Compensation for hard coal operators is to based on reverse auctions set to start already in 2020, provided the draft enters into law
  - Compensation for lignite closures will be agreed on one-by-one basis and will follow a formula based on, inter alia, expected earnings
  - The government intends to cancel European Emission Allowances in order to neutralize the phaseout’s impact on the EU ETS
Positioning Fortum for the decade of electricity – For a cleaner world

1. **Pursue operational excellence and increased flexibility**

2. **Ensure value creation from investments and portfolio optimisation**

3. **Drive focused growth in the power value chain**

4. **Build options for significant new businesses**

The graph illustrates Fortum’s strategic route towards a cleaner world, focusing on profitability and increasing uncertainty towards the year 2030.
Fortum’s strategic priorities in a changing energy market

1. **Pursue operational excellence and increased flexibility**
   - Ensure benchmark performance
   - Focus on cash flow and efficient use of balance sheet

2. **Ensure value creation from investments and portfolio optimisation**
   - Increase shareholder value from Uniper
   - Optimise portfolio to fit the changing business environment

3. **Drive focused growth in the power value chain**
   - Grow in CO₂-free power generation
   - Develop value-adding offerings and solutions for customers

4. **Build options for significant new businesses**
   - Create new sizeable profit contributor independent of power prices
   - Build on industrial logic and synergies with current businesses and competences
Delivering on financial targets through operational excellence and portfolio optimisation in the short to mid term

Strategic priorities…

**Operational excellence**
- Continue productivity improvement
- Prioritise capital expenditure

**Increased flexibility**
- Maximise flexibility in current businesses and assets
- Develop new sources of flexibility

**Value creation and portfolio optimisation**
- Ensure competitive asset fit for changing business environment
- Focus on core businesses
- Selective investments

… creating value

- Benchmark performance
- Optimise cash flow
- Strengthen balance sheet
- Create financial flexibility
- Solid investment grade rating
Fortum is now the majority owner in Uniper, ownership to increase to a maximum of 73.4%

- Fortum now holds 69.6% of the shares and voting rights in Uniper following the closing of the first tranche of the share purchase from Elliott and Knight Vinke on 26 March 2020.
- Second tranche of 1.0% - 3.8% of the shares will be closed within two months from first tranche.
- The total investment in Uniper increases to a max of EUR 6.5 billion, total price for share transaction (both tranches) amounts to a max of EUR 2.6 billion.
- Financial position post-transaction is solid as S&P reconfirmed BBB rating for both companies.
Consolidated Fortum is the third largest CO₂ free generator in Europe

Source: Company information, Fortum analyses, 2018 figures pro forma.

EPH incl. LEAG
Scale, competences and resources to prosper, grow and lead European energy transition

2019 combined Comparable EBITDA(1)

Fortum EUR 3.3 bln
Uniper EUR 1.6 bln

Combined power generation assets(2)

Combined capacity split(3)

Coal phased out over time

Low + Zero emissions

Hydro
Nuclear
Gas
Other thermal
Other

22%
45%
9%
17%
7%

48.6 GW

(1) Comparable EBITDA is based on the Fortum's Comparable EBITDA and Uniper's Adjusted EBITDA as defined in Fortum’s and Uniper's financial statements. No impacts from the assumed transaction has been included.
(2) Market positions for Central-Europe/Europe and Nordics are based on total installed capacity; the market position in Russia is based on thermal capacity.
(3) Based on 31 Dec. 2019 capacity.
Fortum’s CO₂-free power generation to increase by ~60% as Uniper will be consolidated in 2020

Fortum and Uniper consolidated*:

- CO₂-free generation +60%
- Gas-fired power generation triples
- Share of coal-fired generation ~12%
- Share of coal of sales revenue ~1%

* based on 2019 reported figures
• Law to phase out lignite and hard coal latest by 2038 was approved by the government
  – The law still needs to be approved by the parliament
• As midway targets from current 39 GW, capacity to be cut to 30 GW by 2022 and 17 GW by 2030
  – For lignite units, a fixed exit path was agreed with the operators
  – For hard coal, exits until 2026 will be determined in voluntary auctions
  – Hard coal volumes to be closed are fixed at 4 GW in 2020 and 1.5 GW in 2021
• In 2032, assessment of potential full phase-out already in 2035
• Uniper announced shut down of 1.5 GW coal-fired generation in 2022 and 1.4 GW by the end of 2025 subject to implementation of proposed legislation

Current\(^1\) 39 GW to be reduced to 30 GW by 2022 and to 17 GW by 2030

1) Source: Bundesnetzagentur, status as of November 2019
Fortum is a forerunner in sustainability

We engage our customers and society to drive the change towards a cleaner world. Our role is to accelerate this change by reshaping the energy system, improving resource efficiency, and providing smart solutions. This way we deliver excellent shareholder value.

Increasing CO₂-free power generation
Annual CO₂-free power generation will increase appr. 60% from ~45 TWh to ~70 TWh when consolidating Uniper

Among the lowest specific emissions
96% of power generation in the EU and 59% of total power generation was CO₂-free in 2019. Fortum’s specific emissions from power generation in Europe were 27 gCO₂/kWh in 2019, total 183 gCO₂/kWh.

Growing in solar and wind
Targeting a multi-gigawatt wind and solar portfolio, which is subject to the capital recycling business model

Fortum is listed in several sustainability indices and ratings:

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Fortum’s long-term financial targets and dividend policy

Return on capital employed (ROCE) of at least 10%

Comparable Net debt/EBITDA ratio at around 2.5x

Having a solid investment grade rating is a key priority for Fortum

Fortum’s dividend policy is to pay a stable, sustainable, and over time increasing dividend of 50-80% of earnings per share, excluding one-time items
Strong operational performance in 2019 – Financial targets achieved

- Fortum’s achieved power price at EUR 36.8, up 2.2 EUR/MWh
  - Nordic spot power price down, -12%
- Comparable EBITDA at EUR 1,766 million, +16%
- Comparable operating profit at EUR 1,191 million, +21%
- Share of profits of associates and JVs at EUR 744 (38) million
- EPS at EUR 1.67 (0.95)
  - Items affecting comparability EUR -0.07 (0.15)
  - Uniper contribution EUR 0.71 (0)
- Strong cash flow from operating activities at EUR 2,015 (804) million
- Return on capital employed 10%
- Dividend proposal of EUR 1.10 per share
Solid and consistent strategy execution – determined coal phase-out actions

Agreement to buy >20% stake in Uniper – Fortum’s ownership to rise >70%

Divestment of 80% of Nordic wind portfolio, EUR 250 million

Divestment of Joensuu CHP plant, EUR 530 million

ROCE 10% – Net debt/EBITDA reached target level of around 2.5x

New reduced target for specific CO₂ emissions of 180 g/kWh (200 g/kWh)

Carbon neutral district heating in Espoo in 2020s, target to discontinue the use of coal by end of 2025

Coal capacity closures at Stockholm Exergi & TSE – Inkoo 1 GW plant decommissioned

Commissioning of a 250 MW solar plant in Pavagada, India

Commissioning of 50 MW of wind capacity, and 550 MW under construction in Russia

Strategic review of district heating in Poland, Baltics, and Järvenpää, Finland

Coal capacity closures at Stockholm Exergi & TSE – Inkoo 1 GW plant decommissioned

Full year 2019 results

TSE = Turun Seudun Energiantuotanto, Fortum associated company
Nordic water reservoirs

Reservoir content (TWh)

Source: Nord Pool, 2020 by country
Fuel and CO₂ allowance prices

Source: ICE, Refinitiv
Market prices 31 March 2020; 2020 future quotations
Wholesale power price

EUR/MWh

Nordic spot and forward prices

- **Realised system price**
- **Futures 31 March 2020**

Source: Nord Pool, Nasdaq Commodities
Achieved power price up despite lower spot prices

Changes refer to year-on-year difference (Q4 2019 versus Q4 2018)
NOTE: Achieved power price (includes capacity payments) in roubles increased by 1%
**Generation**

**Q4 2019**
- Higher achieved power price, +0.4 EUR/MWh, +1%
- Good operational performance and load factor at a good level
  - Higher hydro and nuclear volumes

**2019**
- Higher achieved power price, +2.2 EUR/MWh, +6%
- Good operational performance
  - Higher hydro and nuclear volumes
- Nuclear load factor at the highest level in Fortum’s history

<table>
<thead>
<tr>
<th></th>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td></td>
<td>583</td>
<td>557</td>
<td>2,141</td>
<td>1,842</td>
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<tr>
<td>Comparable EBITDA</td>
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<td>225</td>
<td>939</td>
<td>763</td>
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<tr>
<td>Comparable operating profit</td>
<td></td>
<td>239</td>
<td>188</td>
<td>794</td>
<td>628</td>
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<tr>
<td>Comparable net assets</td>
<td></td>
<td>6,147</td>
<td>6,485</td>
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</tr>
<tr>
<td>Comparable RONA %</td>
<td></td>
<td>12.8</td>
<td>10.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross investments</td>
<td></td>
<td>77</td>
<td>92</td>
<td>260</td>
<td>262</td>
</tr>
</tbody>
</table>
City Solutions

Q4 2019
- Positive one-time items
- Norwegian heating and cooling business improved clearly
- Somewhat weaker performance in the recycling and waste business

2019
- Strong result improvement in Norwegian heating and cooling business
- Recycling and waste business’ result close to level in 2018
- In 2018, EUR 26 million of profit from sale of solar stake

Strategy review of selected district heating and cooling businesses

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>366</td>
<td>359</td>
<td>1,200</td>
<td>1,110</td>
</tr>
<tr>
<td>Comparable EBITDA</td>
<td>129</td>
<td>109</td>
<td>309</td>
<td>310</td>
</tr>
<tr>
<td>Comparable operating profit</td>
<td>80</td>
<td>64</td>
<td>121</td>
<td>135</td>
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<tr>
<td>Comparable net assets</td>
<td></td>
<td></td>
<td>3,892</td>
<td>3,794</td>
</tr>
<tr>
<td>Comparable RONA %</td>
<td></td>
<td></td>
<td>4.7</td>
<td>5.5</td>
</tr>
<tr>
<td>Gross investments</td>
<td>61</td>
<td>85</td>
<td>322</td>
<td>242</td>
</tr>
</tbody>
</table>
Consumer Solutions

Q4 2019

- Higher sales margin
  - Active development of product and service offering
- Continued competition with high customer churn in the Nordics

2019

- Higher sales margins
- Full synergies of EUR 10 million from Hafslund integration achieved
- Improving EBITDA for nine consecutive quarters

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>510</td>
<td>555</td>
<td>1,835</td>
<td>1,759</td>
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<tr>
<td>Comparable EBITDA</td>
<td>35</td>
<td>31</td>
<td>141</td>
<td>110</td>
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<tr>
<td>Comparable operating profit</td>
<td>19</td>
<td>17</td>
<td>79</td>
<td>53</td>
</tr>
<tr>
<td>Comparable net assets</td>
<td></td>
<td></td>
<td>640</td>
<td>648</td>
</tr>
<tr>
<td>Customer base, million</td>
<td></td>
<td></td>
<td>2.38</td>
<td>2.47</td>
</tr>
<tr>
<td>Gross investments</td>
<td>15</td>
<td>14</td>
<td>55</td>
<td>47</td>
</tr>
</tbody>
</table>
Russia

Q4 2019
• Improved result in heat business
• Lower available CSA capacity and electricity volumes due to unplanned outages
• FX impact EUR 6 million

2019
• Higher electricity margins and received CSA payments
• Lower bad-debt provisions
• FX impact EUR 4 million

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>306</td>
<td>305</td>
<td>1,071</td>
<td>1,069</td>
</tr>
<tr>
<td>Comparable EBITDA</td>
<td>136</td>
<td>127</td>
<td>469</td>
<td>417</td>
</tr>
<tr>
<td>Comparable operating profit</td>
<td>94</td>
<td>89</td>
<td>316</td>
<td>271</td>
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<tr>
<td>Comparable net assets</td>
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<td></td>
<td>3,205</td>
<td>2,789</td>
</tr>
<tr>
<td>Comparable RONA %</td>
<td></td>
<td></td>
<td>12.3</td>
<td>10.3</td>
</tr>
<tr>
<td>Gross investments</td>
<td>98</td>
<td>66</td>
<td>133</td>
<td>117</td>
</tr>
</tbody>
</table>

CSA=Capacity Supply Agreement
Q4 2019 – strong performance and improved results

Comparative operating profit

- 1.0 TWh higher hydro volumes
- 0.2 TWh higher nuclear volumes
- 0.4 EUR/MWh higher achieved price

- Positive one-time effects
- Norwegian heating and cooling business improved clearly
- Somewhat weaker performance in recycling and waste business

- Higher sales margins

- Improved result in heat business
- Lower availability of CSA capacity and electricity volumes
- FX effect EUR 6 million

Comparable operating profit by segment

<table>
<thead>
<tr>
<th>EUR million</th>
<th>IV/19</th>
<th>IV/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>239</td>
<td>188</td>
</tr>
<tr>
<td>City Solutions</td>
<td>60</td>
<td>64</td>
</tr>
<tr>
<td>Consumer Solutions</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Russia</td>
<td>94</td>
<td>89</td>
</tr>
<tr>
<td>Other Operations</td>
<td>-34</td>
<td>-26</td>
</tr>
<tr>
<td>Total</td>
<td>398</td>
<td>333</td>
</tr>
</tbody>
</table>
FY 2019 – solid operational performance in all businesses

Comparative operating profit
EUR million

- 1191
- 26
- 14
166
987

- Higher sales margin, part of improvement temporary in H1/2019
- Active development of product and service offering
- Higher electricity margin
- Lower bad-debt provisions
- Higher CSA payments
- FX effect EUR 4 million
- Increased spend on Business Technology including internal and external ventures

- 2.2 EUR/MWh higher achieved price
- 1.2 TWh lower hydro volumes
- 0.7 TWh higher nuclear volume
- EUR 26 million profit from sold solar stake
- Result improvement in Norwegian H&C business
- One-time effects

Comparable operating profit by segment
EUR million

<table>
<thead>
<tr>
<th>Segment</th>
<th>IV/19</th>
<th>IV/18</th>
<th>2019</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generation</td>
<td>239</td>
<td>105</td>
<td>764</td>
<td>623</td>
</tr>
<tr>
<td>City Solutions</td>
<td>80</td>
<td>64</td>
<td>121</td>
<td>135</td>
</tr>
<tr>
<td>Consumer Solutions</td>
<td>19</td>
<td>17</td>
<td>59</td>
<td>53</td>
</tr>
<tr>
<td>Russia</td>
<td>94</td>
<td>89</td>
<td>316</td>
<td>271</td>
</tr>
<tr>
<td>Other Operations</td>
<td>-34</td>
<td>28</td>
<td>-119</td>
<td>-99</td>
</tr>
<tr>
<td>Total</td>
<td>398</td>
<td>333</td>
<td>1,191</td>
<td>987</td>
</tr>
</tbody>
</table>

Full year 2019 results
### Key financials

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,553</td>
<td>1,599</td>
<td>5,447</td>
<td>5,242</td>
</tr>
<tr>
<td>Comparable EBITDA</td>
<td>552</td>
<td>473</td>
<td>1,766</td>
<td>1,523</td>
</tr>
<tr>
<td>Comparable operating profit</td>
<td>398</td>
<td>333</td>
<td>1,191</td>
<td>987</td>
</tr>
<tr>
<td>Operating profit</td>
<td>444</td>
<td>309</td>
<td>1,110</td>
<td>1,138</td>
</tr>
<tr>
<td>Share of profits of associates and joint ventures</td>
<td>65</td>
<td>-44</td>
<td>744</td>
<td>38</td>
</tr>
<tr>
<td>Profit before income taxes</td>
<td>454</td>
<td>261</td>
<td>1,728</td>
<td>1,040</td>
</tr>
<tr>
<td>Earnings per share, EUR</td>
<td>0.40</td>
<td>0.22</td>
<td>1.67</td>
<td>0.95</td>
</tr>
<tr>
<td>Net cash from operating activities</td>
<td>261</td>
<td>38</td>
<td>2,015</td>
<td>804</td>
</tr>
</tbody>
</table>

### Full year 2019

- Comparable operating profit supported by good results in Generation and Russia
- Share of profits from associates driven by Uniper result contribution
  - Uniper EUR 632 million:
    - EUR 160 million underlying result
    - EUR 392 million non-operating result
    - EUR 48 million UK capacity market
    - EUR 31 million reversal of fair value adjustment
- EPS EUR 1.67 (0.95)
  - Items affecting comparability -0.07 (0.15)
  - Uniper share of result 0.71 (0)
- Very strong cash flow
## Income statement

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>1,553</td>
<td>1,599</td>
<td>5,447</td>
<td>5,242</td>
</tr>
<tr>
<td>Other income</td>
<td>45</td>
<td>41</td>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>Materials and services</td>
<td>-745</td>
<td>-870</td>
<td>-2,721</td>
<td>-2,795</td>
</tr>
<tr>
<td>Employee benefits</td>
<td>-125</td>
<td>-119</td>
<td>-480</td>
<td>-459</td>
</tr>
<tr>
<td>Depreciations and amortisation</td>
<td>-154</td>
<td>-139</td>
<td>-575</td>
<td>-536</td>
</tr>
<tr>
<td>Other expenses</td>
<td>-176</td>
<td>-178</td>
<td>-591</td>
<td>-594</td>
</tr>
<tr>
<td><strong>Comparable operating profit</strong></td>
<td><strong>398</strong></td>
<td><strong>333</strong></td>
<td><strong>1,191</strong></td>
<td><strong>987</strong></td>
</tr>
<tr>
<td>Items affecting comparability</td>
<td>46</td>
<td>-24</td>
<td>-81</td>
<td>151</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td><strong>444</strong></td>
<td><strong>309</strong></td>
<td><strong>1,110</strong></td>
<td><strong>1,138</strong></td>
</tr>
<tr>
<td>Share of profits/loss of associates and joint ventures</td>
<td>65</td>
<td>-44</td>
<td>744</td>
<td>38</td>
</tr>
<tr>
<td>Finance costs - net</td>
<td>-55</td>
<td>-4</td>
<td>-125</td>
<td>-136</td>
</tr>
<tr>
<td><strong>Profit before income tax</strong></td>
<td><strong>454</strong></td>
<td><strong>261</strong></td>
<td><strong>1,728</strong></td>
<td><strong>1,040</strong></td>
</tr>
<tr>
<td>Income tax expense</td>
<td>-88</td>
<td>-64</td>
<td>-221</td>
<td>-181</td>
</tr>
<tr>
<td><strong>Profit for the period</strong></td>
<td><strong>367</strong></td>
<td><strong>197</strong></td>
<td><strong>1,507</strong></td>
<td><strong>858</strong></td>
</tr>
</tbody>
</table>

### Full year 2019 results

- Comparable operating profit +21%
- Reported operating profit impacted by items affecting comparability, mainly fair value changes of derivatives
- Uniper contribution in share of profits, EUR 632 (-2) million
- Finance costs, net
  - Net interest expenses of EUR 139 (114) million impacted by EUR 13 million costs related to repayment of bridge financing for Uniper investment
**Cash flow statement**

<table>
<thead>
<tr>
<th>MEUR</th>
<th>Q4 2019</th>
<th>Q4 2018</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparable EBITDA</strong></td>
<td>552</td>
<td>473</td>
<td>1,766</td>
<td>1,523</td>
</tr>
<tr>
<td>Realised FX gains/losses</td>
<td>3</td>
<td>26</td>
<td>14</td>
<td>231</td>
</tr>
<tr>
<td>Paid net financial costs, income taxes and other</td>
<td>-73</td>
<td>-62</td>
<td>-327</td>
<td>-341</td>
</tr>
<tr>
<td>Dividends received</td>
<td>0</td>
<td>7</td>
<td>239</td>
<td>61</td>
</tr>
<tr>
<td>Change in working capital</td>
<td>-234</td>
<td>-180</td>
<td>-33</td>
<td>61</td>
</tr>
<tr>
<td>Change in settlements for futures</td>
<td>14</td>
<td>-226</td>
<td>356</td>
<td>-524</td>
</tr>
<tr>
<td><strong>Net cash from operating activities</strong></td>
<td><strong>261</strong></td>
<td><strong>38</strong></td>
<td><strong>2,015</strong></td>
<td><strong>804</strong></td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>-166</td>
<td>-185</td>
<td>-695</td>
<td>-579</td>
</tr>
<tr>
<td>Acquisitions of shares</td>
<td>-70</td>
<td>-175</td>
<td>-107</td>
<td>-4,088</td>
</tr>
<tr>
<td>Divestments of shares and capital returns</td>
<td>1</td>
<td>2</td>
<td>53</td>
<td>259</td>
</tr>
<tr>
<td>Change in cash collaterals and restricted cash</td>
<td>-9</td>
<td>51</td>
<td>311</td>
<td>-36</td>
</tr>
<tr>
<td>Other investing activities</td>
<td>37</td>
<td>15</td>
<td>69</td>
<td>46</td>
</tr>
<tr>
<td><strong>Cash flow from investing activities</strong></td>
<td><strong>-207</strong></td>
<td><strong>-292</strong></td>
<td><strong>-369</strong></td>
<td><strong>-4,398</strong></td>
</tr>
<tr>
<td><strong>Cash flow before financing activities</strong></td>
<td><strong>55</strong></td>
<td><strong>-254</strong></td>
<td><strong>1,646</strong></td>
<td><strong>-3,594</strong></td>
</tr>
<tr>
<td>Paid dividends to the owners of the parent</td>
<td>0</td>
<td>0</td>
<td>-977</td>
<td>-977</td>
</tr>
<tr>
<td>Paid dividends to non-controlling interests</td>
<td>0</td>
<td>0</td>
<td>-23</td>
<td>-5</td>
</tr>
</tbody>
</table>

**Full year 2019**

- Cash flow strengthened due to
  - Improvement in comparable EBITDA of EUR 243 million
  - Change in settlements for futures EUR 356 (-524) million
  - Dividends received from associates EUR 239 (61) million
- Acquisition of shares in 2018 mainly Uniper
- Release of pledged cash from collateral arrangement EUR 310 million
Long-term financial targets achieved

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparable EBITDA, MEUR</td>
<td>1,766</td>
<td>1,523</td>
<td></td>
</tr>
<tr>
<td>Interest-bearing net debt, MEUR</td>
<td>5,260</td>
<td>5,509</td>
<td></td>
</tr>
<tr>
<td>Comparable net debt/EBITDA ratio 1)</td>
<td>3.0x</td>
<td>3.6x</td>
<td>Around 2.5x ✓</td>
</tr>
<tr>
<td>Return on capital employed (ROCE), %</td>
<td>10.0</td>
<td>6.7</td>
<td>At least 10% ✓</td>
</tr>
</tbody>
</table>

Total loans of EUR 6,580 million
- Average interest of 2.3% (2.4%)
- Portfolio mainly in euros with average interest cost of 1.6% (1.7%)
- EUR 787 million (686) swapped to RUB, average interest cost including cost for hedging 7.8% (8.3%)
- Short-term debt includes a new non-cash collateral arrangement for the Nordic power exchange collaterals and settlement

1) Adjusting the year-end comparable net debt-to-EBITDA with the total consideration of the Joensuu transaction, the leverage target of around 2.5x was achieved in January 2020.
2) In addition, Fortum has received EUR 65 million based on Credit Support Annex agreements with several counterparties. This amount has been booked as a short term liability.
Fortum’s key objective is to have a solid investment-grade rating of at least BBB

- Comparable EBITDA at EUR 1,766 million
  - EPS at EUR 1.67
- Strong cash flow from operating activities of EUR 2,015 million
- ROCE target achieved at 10%
- Comparable Net debt/EBITDA at 3.0x (LTM)
  - Fortum’s long term target of around 2.5x achieved when adjusting for the divestments of Joensuu district heating and Nordic wind
- Prioritising investments
  - 2020 capex expected to be ~EUR 700 million, including ~EUR 200 million of investments in renewables subject to capital recycling
## Outlook

<table>
<thead>
<tr>
<th>Demand growth</th>
<th>Hedging</th>
<th>2020 estimated annual capital expenditure,</th>
<th>Targeted cost synergies of Hafslund transaction</th>
<th>Taxation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity demand in the Nordics is expected to grow by ~0.5% on average</td>
<td>2020: ~75% at EUR 34 per MWh (Q3: 70% at EUR 33)</td>
<td>of ~EUR 700 million including maintenance of ~EUR 300 million and excluding acquisitions, including ~EUR 200 million of investments in renewables, subject to capital recycling.</td>
<td>City Solution synergies of EUR 5-10 million gradually materialising, fully by the end of 2020.</td>
<td>In Sweden, hydro assets real estate tax rate to decrease over a four-year period (2017-2020)</td>
</tr>
<tr>
<td>2021: ~40% at EUR 33 per MWh (Q3: 35% at EUR 33)</td>
<td></td>
<td></td>
<td>Consumer Solutions synergies of EUR 10 million achieved in 2019</td>
<td>In 2020 ~EUR 15 million lower from the 2019 level</td>
</tr>
</tbody>
</table>

---

### Solberg, Sweden
Still a highly fragmented Nordic power market
Fortum has the largest electricity customer base in the Nordics

Power generation in 2018
400 TWh
>350 companies

Electricity retail
16 million customers
~350 companies

Source: Fortum, company data, shares of the largest actors, pro forma 2018 figures
Norlys was formed through the merger of the companies SE and Eniig in Denmark
Väre was formed through the merger of the retail businesses of Savon Voima, Jyväskylän Energia, Kuopion Energia and Lappeenrannan Energia in Finland
Fortum mid-sized European power generation player – major producer in global heat

**Power generation**
Largest producers in Europe and Russia, 2018

<table>
<thead>
<tr>
<th>TWh</th>
<th>EDF</th>
<th>Rosenergoatom</th>
<th>RWE</th>
<th>Enel</th>
<th>Gazprom</th>
<th>RusHydro</th>
<th>Inter RAO UES</th>
<th>Uniper</th>
<th>Vattenfall</th>
<th>ENGIE</th>
<th>EPH</th>
<th>NNEGC Energoat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 100 200 300 400 500 600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Heat production**
Largest global producers, 2018

<table>
<thead>
<tr>
<th>TWh</th>
<th>Gazprom</th>
<th>T Plus</th>
<th>Sibgenco</th>
<th>Inter RAO UES</th>
<th>Veolia</th>
<th>RusHydro</th>
<th>En+ EDF</th>
<th>Fortum</th>
<th>Quadra</th>
<th>TGC-2</th>
<th>KHD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 20 40 60 80 100 120 140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Customers**
Electricity customers in Europe, 2018

<table>
<thead>
<tr>
<th>Millions</th>
<th>Enel</th>
<th>EDF</th>
<th>E.ON</th>
<th>Iberdrola</th>
<th>E.ON</th>
<th>EnBW</th>
<th>Vattenfall</th>
<th>EDP</th>
<th>ENGIE</th>
<th>DEI</th>
<th>CEZ</th>
<th>Vattenfall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>En+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company information, Fortum analyses, 2018 figures pro forma.
EPH incl. LEAG, E.ON incl. Innogy customers. No data from China.
Wholesale power prices

Source: Nord Pool, Bloomberg Finance LP, ATS, NP "Market Council", Fortum

* Including weighted average capacity price
Nordic year forwards

Source: Nasdaq Commodities, Bloomberg
German and Nordic forward prices softened

Spot price
- During Q4 2019, the average spread was -2.1 EUR/MWh with the Nordic system average price at 38.6 EUR/MWh and the German spot price at 36.6 EUR/MWh.
- Declining gas price and slightly below normal demand were weighing on German spot price. Nordic prices were supported by the hydrological deficit and weak wind power output during October and November.
- During 2012-2019, the average realised German-Nordic spot spread was 3.9 EUR/MWh, fluctuating on an annual level in the range of -1…15 EUR/MWh.

Forward price
- During Q4 2019, the spread for 2021 delivery traded in the range 10.9-15.8 EUR/MWh, average at 12.5 EUR/MWh. At the end of December, it traded at 11.5 EUR/MWh as the German forwards were pressured by the weak gas.
- The German-Nordic spread is essentially determined by the supply-demand balance in the Nordics and on Continental Europe, in combination with available interconnector capacity. Thus investments in interconnectors, demand growth, expansion of renewable capacity, as well as phasing out of nuclear and coal capacity all play a key role.
Nordic, Baltic, Continental and UK markets are integrating – Interconnection capacity growing to over 13 GW by end-2023

- Several interconnectors are currently under construction or decided to be built
- New interconnections will increase the Nordic export capacity from the current 6.9 GW to over 13 GW by end of 2023

![Diagram showing interconnection projects and capacities from 2019 to 2024](image)

- 700 MW COBRAcable from DK to NL has been taken into operation in September 2019
- New 400 MW Zealand – DE connection via Kriegers Flak offshore wind area due in June 2020
- EU’s Connecting Europe Facility co-financing 3rd EE-LV transmission line, due to be ready by end-2020
- DK1-DE capacity will grow by 860 MW by end-2020, with further 1,000 MW increase by end-2023
- 1,400 MW NordLink as first direct NO-DE link is due to start commercial operation in March 2021
- 700 MW COBRAcable from DK to NL has been taken into operation in September 2019
- 1,400 MW NordLink as first direct NO-DE link is due to start commercial operation in March 2021
- Norway - UK 1,400 MW North Sea Link (NSL) is due to be ready by end-2021
- 1,400 MW DK-UK Viking Link has been contracted to be built by end-2023
- 700 MW LT-PL Harmony Link to be built by 2025 as a part of the Baltic synchronisation project
- 700 MW Hansa PowerBridge DC link between Sweden and Germany by 2026/2027
- 800 MW with first measures on SE2-SE3 by 2023
- 800 MW 3rd 400 kV line SE1-FI ready in 2025

Years in the chart above refer to a snapshot of 1st of January each year. Source: Fortum Market Intelligence

<table>
<thead>
<tr>
<th>NORDICS</th>
<th>BALTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>TWh</td>
</tr>
<tr>
<td>Hydro</td>
<td>*212</td>
</tr>
<tr>
<td>Nuclear</td>
<td>88</td>
</tr>
<tr>
<td>Fossil fuel</td>
<td>28</td>
</tr>
<tr>
<td>Biomass</td>
<td>26</td>
</tr>
<tr>
<td>Waste</td>
<td>3</td>
</tr>
<tr>
<td>Wind</td>
<td>40</td>
</tr>
<tr>
<td>Solar</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total generation</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

Net export: 2 TWh
Net import: 9 TWh

*) Normal annual Nordic hydro generation 200 TWh, variation +/- 40 TWh.
Fortum’s power generation and heat production by source

Fortum’s power generation in 2019

- Total power generation: 76.3 TWh
- Natural gas: 37%
- Nuclear power: 31%
- Hydropower: 26%
- Wind, solar, biomass, coal: 1%

Fortum’s heat production in 2019

- Total heat production: 26.4 TWh
- Natural gas: 59%
- Waste: 10%
- Coal: 18%
- Others: 1%
- Peat: 1%
- Heat pumps, electricity: 2%
- Biomass: 9%

Note: Fortum’s power generation capacity 14,230 MW (hydro 4,677, nuclear 2,821, CHP 5,689, condensing 565, wind 194 and solar 285) and heat production capacity 13,249 MW at the end of 2019.
Fortum’s Nordic, Baltic and Polish generation capacity

The capacity includes the 52 MW Joensuu CHP plant in Finland, which has been sold in January 2020.

**NORDIC, BALTIc AND POLISH generation capacity**

**GENErATION CAPACITY**

- Hydro: 4,677 MW
- Nuclear: 2,821 MW
- CHP: 831 MW
- Other thermal: 565 MW
- Wind: 159 MW

Nordic, Baltic and Polish generation capacity: 9,053 MW

Figures 31 December 2019

---

**SWEDEN**

- Price areas
  - SE2, Hydro: 1,550 MW
  - SE2, Wind: 75 MW
  - SE3, Hydro: 1,574 MW
  - SE3, Nuclear: 1,334 MW
  - SE3, CHP: 9 MW
- Generation capacity: 4,542 MW

---

**FINLAND**

- Price areas
  - NO4, Wind: 82 MW
  - NO1, CHP: 20 MW
- Generation capacity: 102 MW

---

**BALTICS AND POLAND**

- Generation capacity, CHP
  - in Estonia: 49 MW
  - in Latvia: 34 MW
  - in Lithuania: 18 MW
  - in Poland: 233 MW
  - in Latvia, Wind: 2 MW

---

**DENMARK, DK1**

- Generation capacity, CHP: 16 MW

---
Fortum is growing towards gigawatt scale target in solar and wind power generation

<table>
<thead>
<tr>
<th>PORTFOLIO</th>
<th>TECHNOLOGY</th>
<th>STATUS</th>
<th>CAPACITY</th>
<th>FORTUM SHARE, MW</th>
<th>SUPPLY STARTS/STARTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINLAND</td>
<td>Wind</td>
<td>Under construction</td>
<td>90</td>
<td>90</td>
<td>Q1 2021</td>
</tr>
<tr>
<td>NORWAY</td>
<td>Wind</td>
<td>Operational</td>
<td>32</td>
<td>32</td>
<td>2006 and 2011</td>
</tr>
<tr>
<td>Anstadbåtheia</td>
<td>Wind</td>
<td>Operational</td>
<td>50</td>
<td>50</td>
<td>2018</td>
</tr>
<tr>
<td>Serfford</td>
<td>Wind</td>
<td>Under construction</td>
<td>97</td>
<td>97</td>
<td>Q4 2019-Q3 2020</td>
</tr>
<tr>
<td>SWEDEN</td>
<td>Wind</td>
<td>Operational</td>
<td>76</td>
<td>76</td>
<td>2018</td>
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<tr>
<td>RUSSIA</td>
<td>Solar</td>
<td>Operational</td>
<td>15</td>
<td>15</td>
<td>2016-2017</td>
</tr>
<tr>
<td>Pleshanovsk</td>
<td>Solar</td>
<td>Operational</td>
<td>10</td>
<td>10</td>
<td>2017</td>
</tr>
<tr>
<td>Grachevsk</td>
<td>Solar</td>
<td>Operational</td>
<td>10</td>
<td>10</td>
<td>2017</td>
</tr>
<tr>
<td>Russia</td>
<td>Solar</td>
<td>Under development</td>
<td>110+6</td>
<td>110+6</td>
<td>2021-2022</td>
</tr>
<tr>
<td>Ulyanovsk</td>
<td>Wind</td>
<td>Operational</td>
<td>35</td>
<td>35</td>
<td>2018</td>
</tr>
<tr>
<td>Ulyanovsk 2</td>
<td>Wind</td>
<td>Operational</td>
<td>50</td>
<td>25 (50%)</td>
<td>1.1.2019</td>
</tr>
<tr>
<td>Rostov</td>
<td>Wind</td>
<td>Operational/Under construction</td>
<td>100+200</td>
<td>50+100 (50%)</td>
<td>1.3.2020 / H1 2020</td>
</tr>
<tr>
<td>Kalmykia</td>
<td>Wind</td>
<td>Under construction</td>
<td>200</td>
<td>100 (50%)</td>
<td>Q4 2020</td>
</tr>
<tr>
<td>Rostov</td>
<td>Wind</td>
<td>Under construction</td>
<td>50</td>
<td>25 (50%)</td>
<td>Q4 2020</td>
</tr>
<tr>
<td>Rusnano JV</td>
<td>Wind</td>
<td>Under development</td>
<td>1,223</td>
<td>612 (50%)</td>
<td>2018-2023</td>
</tr>
<tr>
<td>INDIA</td>
<td>Solar</td>
<td>Operational</td>
<td>5</td>
<td>2 (44%)</td>
<td>2012</td>
</tr>
<tr>
<td>Kapeli</td>
<td>Solar</td>
<td>Operational</td>
<td>10</td>
<td>4 (44%)</td>
<td>2014</td>
</tr>
<tr>
<td>Bhadla</td>
<td>Solar</td>
<td>Operational</td>
<td>70</td>
<td>31 (44%)</td>
<td>2017</td>
</tr>
<tr>
<td>Pavagada</td>
<td>Solar</td>
<td>Operational</td>
<td>100</td>
<td>44 (44%)</td>
<td>2017</td>
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<tr>
<td>Pavagada 2</td>
<td>Solar</td>
<td>Operational</td>
<td>250</td>
<td>250</td>
<td>Q3 2019</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>Solar</td>
<td>Under construction</td>
<td>250</td>
<td>250</td>
<td>Q4 2020</td>
</tr>
<tr>
<td>TOTAL</td>
<td>Under development</td>
<td>1,339</td>
<td>728</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Under construction</td>
<td>887</td>
<td>662</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operational</td>
<td>813</td>
<td>634</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*) NOTE: Table numbers not accounting; tells the size of renewables projects. All not consolidated to Fortum capacities. All figures in MW and rounded to nearest megawatt. Additionally, target to invest 200 – 400 million euros in India solar and create partnership for operating assets. Under construction includes investment decisions made.
# Fortum’s nuclear fleet

<table>
<thead>
<tr>
<th></th>
<th>LOVIISA</th>
<th>OLKILUOTO</th>
<th>OSKARSHAMN</th>
<th>FORSMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>operation started</td>
<td>Unit 1: 1977</td>
<td>Unit 1: 1978</td>
<td>Unit 1: 1972*</td>
<td>Unit 1: 1980</td>
</tr>
<tr>
<td></td>
<td>Unit 3: (Under construction)</td>
<td>Unit 3: 1985</td>
<td>Unit 3: 1985</td>
<td>Unit 3: 1985</td>
</tr>
<tr>
<td>Generation Capacity</td>
<td>Unit 1: 507 MW</td>
<td>Unit 1: 890 MW</td>
<td>Unit 1: 473 MW*</td>
<td>Unit 1: 988 MW</td>
</tr>
<tr>
<td></td>
<td>Unit 2: 507 MW</td>
<td>Unit 2: 890 MW</td>
<td>Unit 2: 638 MW*</td>
<td>Unit 2: 1,118 MW</td>
</tr>
<tr>
<td></td>
<td>Total: 1,014 MW</td>
<td>(Unit 3: 1,600 MW)</td>
<td>Unit 3: 1,400 MW</td>
<td>Unit 3: 1,172 MW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 1,780 MW (3,380 MW)</td>
<td>Total: 1,400 MW</td>
<td>Total: 3,278 MW</td>
</tr>
<tr>
<td></td>
<td>27% 473 MW (873 MW)</td>
<td>43% 602 MW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fortum’s share</td>
<td>100% 1,014 MW</td>
<td>15 TWh</td>
<td>11 TWh</td>
<td>25 TWh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 TWh</td>
<td>5 TWh</td>
<td>6 TWh</td>
</tr>
<tr>
<td>Yearly production</td>
<td>8 TWh</td>
<td>15 TWh</td>
<td>11 TWh</td>
<td>25 TWh</td>
</tr>
<tr>
<td>Fortum’s share of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Majority owner</td>
<td>Fortum</td>
<td>Pohjolan Voima</td>
<td>Uniper</td>
<td>Vattenfall</td>
</tr>
<tr>
<td>Fortum’s share</td>
<td></td>
<td>26.6%</td>
<td>43.4%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Operated by</td>
<td>Fortum</td>
<td>Teollisuuden Voima (TVO)</td>
<td>OKG Aktiebolag</td>
<td>Forsmarks Kraftgrupp</td>
</tr>
</tbody>
</table>

**RESPONSIBILITIES**

**Lovisa**: Fortum is the owner, licensee and operator with all the responsibilities specified in the Nuclear Energy Act, Nuclear Liability Act, and other relevant nuclear legislation.

**Other units**: Fortum is solely an owner with none of the responsibilities assigned to the licensee in the nuclear legislation. Other responsibilities are specified in the Companies Act and the Articles of Association and are mostly financial.
## Fortum's nuclear power in the Nordics

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oskarshamn 1*</td>
<td>80</td>
<td>51</td>
<td>63</td>
<td>85</td>
<td>68</td>
<td>77</td>
<td>72</td>
<td>1</td>
<td>12</td>
<td>74</td>
<td>60</td>
<td>81</td>
<td>82</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oskarshamn 2*</td>
<td>90</td>
<td>78</td>
<td>76</td>
<td>86</td>
<td>75</td>
<td>90</td>
<td>77</td>
<td>81</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oskarshamn 3</td>
<td>85</td>
<td>95</td>
<td>88</td>
<td>70</td>
<td>17</td>
<td>31</td>
<td>68</td>
<td>69</td>
<td>77</td>
<td>75</td>
<td>79</td>
<td>83</td>
<td>77</td>
<td>87</td>
<td>89</td>
</tr>
<tr>
<td>Forsmark 1</td>
<td>85</td>
<td>76</td>
<td>81</td>
<td>88</td>
<td>88</td>
<td>93</td>
<td>79</td>
<td>88</td>
<td>87</td>
<td>94</td>
<td>79</td>
<td>95</td>
<td>88</td>
<td>94</td>
<td>85</td>
</tr>
<tr>
<td>Forsmark 2</td>
<td>94</td>
<td>72</td>
<td>85</td>
<td>79</td>
<td>64</td>
<td>38</td>
<td>94</td>
<td>82</td>
<td>89</td>
<td>89</td>
<td>91</td>
<td>75</td>
<td>82</td>
<td>87</td>
<td>86</td>
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<tr>
<td>Forsmark 3</td>
<td>95</td>
<td>92</td>
<td>88</td>
<td>69</td>
<td>86</td>
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<td>85</td>
<td>93</td>
<td>88</td>
<td>83</td>
<td>58</td>
<td>82</td>
<td>86</td>
<td>81</td>
<td>92</td>
</tr>
<tr>
<td>Loviisa 1</td>
<td>95</td>
<td>93</td>
<td>94</td>
<td>86</td>
<td>96</td>
<td>93</td>
<td>94</td>
<td>84</td>
<td>92</td>
<td>92</td>
<td>93</td>
<td>88</td>
<td>93</td>
<td>91</td>
<td>93</td>
</tr>
<tr>
<td>Loviisa 2</td>
<td>95</td>
<td>88</td>
<td>96</td>
<td>93</td>
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<td>94</td>
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<td>Olkiluoto 1</td>
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<td>97</td>
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<td>91</td>
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<td>97</td>
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<tr>
<td>Olkiluoto 2</td>
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<td>97</td>
<td>94</td>
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<td>97</td>
<td>89</td>
<td>94</td>
<td>81</td>
<td>94</td>
<td>92</td>
</tr>
</tbody>
</table>

Source: Fortum
*) Out of operation; on decommissioning phase

### Finnish units world class in availability

**Overview of production and consumption:**

[www.fortum.com/investors](http://www.fortum.com/investors) - energy related links
### Thermal power generation capacity in Russia on 31 Dec 2019

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SUPPLY STARTS</th>
<th>POWER PLANT</th>
<th>FUEL TYPE</th>
<th>CCS CAPACITY</th>
<th>CSA CAPACITY</th>
<th>PRODUCTION TYPE</th>
<th>TOTAL CAPACITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2011</td>
<td></td>
<td>Tyumen CHP-2</td>
<td>Gas</td>
<td>755</td>
<td></td>
<td>CHP/Condensing</td>
<td>755</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chelyabinsk CHP-2</td>
<td>Gas, coal</td>
<td>320</td>
<td></td>
<td>CHP/Condensing</td>
<td>320</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Argayash CHP</td>
<td>Coal</td>
<td>256</td>
<td></td>
<td>CHP/Condensing</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chelyabinsk CHP-1</td>
<td>Gas</td>
<td>134</td>
<td></td>
<td>CHP/Condensing</td>
<td>134</td>
</tr>
<tr>
<td>2011</td>
<td>Feb/2011</td>
<td>Tyumen CHP-1</td>
<td>Gas</td>
<td>472</td>
<td>210</td>
<td>CHP/Condensing</td>
<td>682</td>
</tr>
<tr>
<td></td>
<td>Jun/2011</td>
<td>Chelyabinsk CHP-3</td>
<td>Gas</td>
<td>360</td>
<td>233</td>
<td>CHP/Condensing</td>
<td>593</td>
</tr>
<tr>
<td>2013</td>
<td>Apr/2013</td>
<td>Nyagan 1 GRES</td>
<td>Gas</td>
<td>453</td>
<td></td>
<td>Condensing</td>
<td>453</td>
</tr>
<tr>
<td></td>
<td>Dec/2013</td>
<td>Nyagan 2 GRES</td>
<td>Gas</td>
<td>453</td>
<td></td>
<td>Condensing</td>
<td>453</td>
</tr>
<tr>
<td>2015</td>
<td>Jan/2015</td>
<td>Nyagan 3 GRES</td>
<td>Gas</td>
<td>455</td>
<td></td>
<td>Condensing</td>
<td>455</td>
</tr>
<tr>
<td></td>
<td>Dec/2015</td>
<td>Chelyabinsk 1 GRES</td>
<td>Gas</td>
<td>247</td>
<td></td>
<td>CHP/Condensing</td>
<td>247</td>
</tr>
<tr>
<td>2016</td>
<td>Mar/2016</td>
<td>Chelyabinsk 2 GRES</td>
<td>Gas</td>
<td>248</td>
<td></td>
<td>CHP/Condensing</td>
<td>248</td>
</tr>
<tr>
<td>2017</td>
<td>Nov/2017</td>
<td>Chelyabinsk 3 GRES</td>
<td>Gas</td>
<td>263</td>
<td></td>
<td>CHP/CCGT</td>
<td>263</td>
</tr>
</tbody>
</table>

**TOTAL:** 2,560 MW, 2,298 MW, 4,858 MW
Day ahead wholesale market prices in Russia

Key electricity, capacity and gas prices in the PAO Fortum area

<table>
<thead>
<tr>
<th></th>
<th>IV/19</th>
<th>IV18</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity spot price (market price), Urals hub, RUB/MWh</td>
<td>1,081</td>
<td>1,099</td>
<td>1,117</td>
<td>1,043</td>
</tr>
<tr>
<td>Average regulated gas price, Urals region, RUB 1000 m³</td>
<td>3,937</td>
<td>3,883</td>
<td>3,910</td>
<td>3,801</td>
</tr>
<tr>
<td>Average capacity price for CCS, tRUB/MW/month</td>
<td>166</td>
<td>158</td>
<td>154</td>
<td>148</td>
</tr>
<tr>
<td>Average capacity price for CSA, tRUB/MW/month</td>
<td>1,186</td>
<td>1,196</td>
<td>1,096</td>
<td>1,075</td>
</tr>
<tr>
<td>Average capacity price, tRUB/MW/month</td>
<td>684</td>
<td>682</td>
<td>624</td>
<td>609</td>
</tr>
<tr>
<td>Achieved power price for Fortum in Russia, RUB/MWh</td>
<td>2,003</td>
<td>1,982</td>
<td>1,990</td>
<td>1,888</td>
</tr>
<tr>
<td>Achieved power price for Fortum in Russia, EUR/MWh</td>
<td>28.2</td>
<td>26.0</td>
<td>27.3</td>
<td>25.6</td>
</tr>
</tbody>
</table>

In addition to the power price generators receive a capacity payment.
Hedging improves stability and predictability – principles based on risk mitigation

Realised prices quarterly since 2000

- Achieved power price
- Spot price, SE&FI avg.

2009 onwards thermal and import from Russia excluded
Capital returns: 2019 EUR 1.10 per share ~ EUR 1 billion

Fortum's target is to pay a stable, sustainable, and over time increasing dividend of 50-80% of earnings per share excluding one-off items.

Fortum’s dividend policy is based on the following preconditions:

- The dividend policy ensures that shareholders receive a fair remuneration for their entrusted capital, supported by the company’s long-term strategy that aims at increasing earnings per share and thereby the dividend.
- When proposing the dividend, the Board of Directors looks at a range of factors, including the macro environment, balance sheet strength as well as future investment plans.

Since 1998 Fortum has paid dividends totaling EUR 16.5 billion.
For more information, please visit www.fortum.com/investors

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Next events:
The AGM on 23 of April 2020
The ex-dividend date 24 of April 2020
The dividend payment day 5 of May 2020
January-March Interim Report on 15 May
January-June Half-year Financial Report on 19 August
January-September Interim Report on 17 November
The CMD planned for 3 December 2020

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