



Equity story of

FORTUM – For a cleaner world

Investor / Analyst material

March 2020

Disclaimer

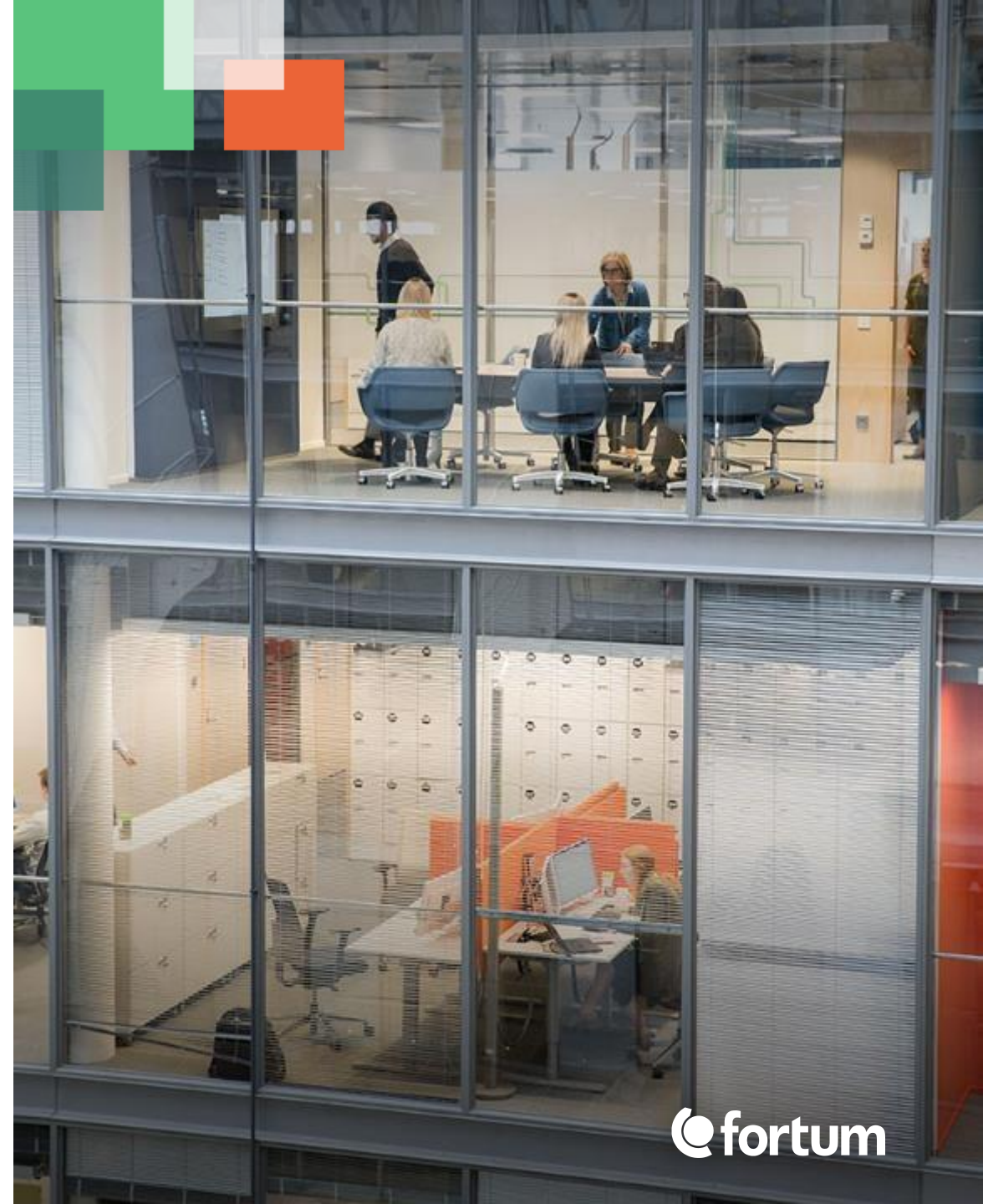
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Past performance is no guide to future performance, and persons needing advice should consult an independent financial adviser.

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

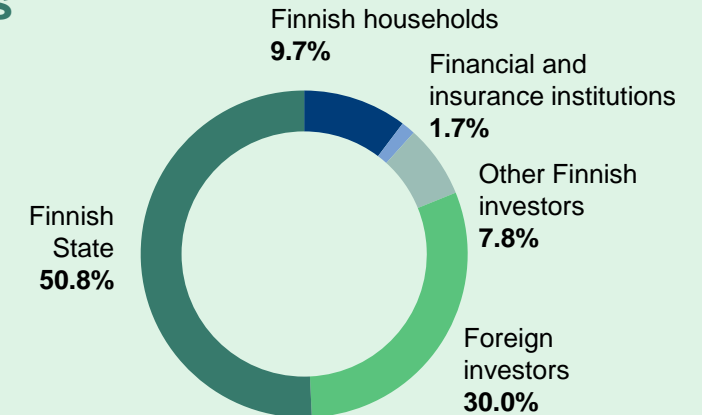
Description of Fortum

- 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

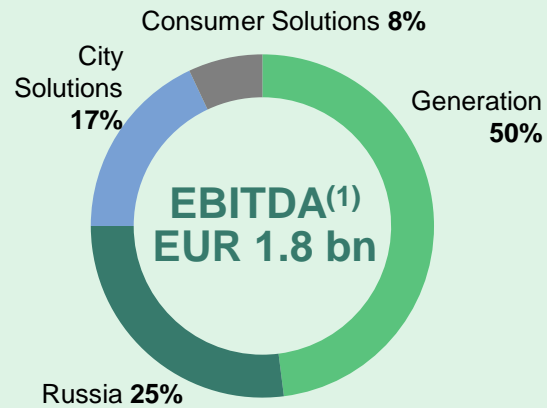
Key shareholders

- Listed on the Helsinki Stock Exchange since 1998
- Market capitalisation of ~EUR 20bn
- Finnish State is a majority owner

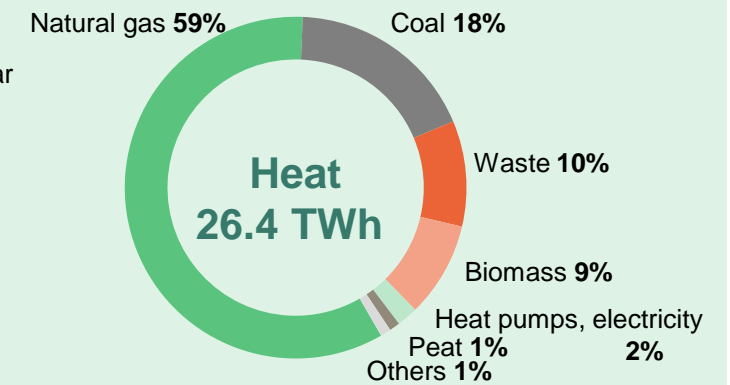
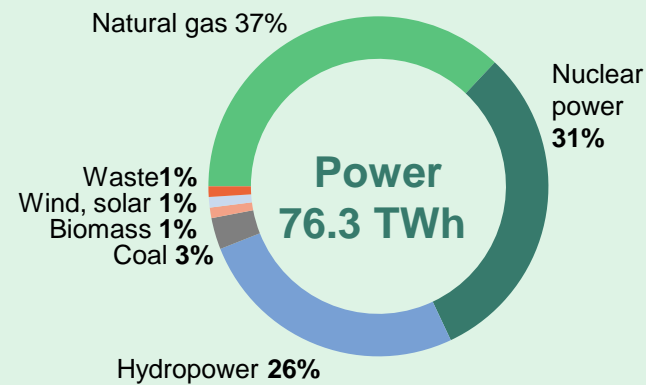
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Operations by business segment



Production by source



Note: All data as of FYE 2019 unless otherwise stated

(1) Comparable EBITDA defined as operating profit plus depreciation and amortisation less items affecting comparability

Fortum's geographical footprint



Nordic countries

- #3** Power generation
45.5 TWh
- #5** Heat sales
5.9 TWh
- #1** Electricity customers
2.3 million



Russia PAO Fortum

- #10** Power generation
29.3 TWh
- #7** 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

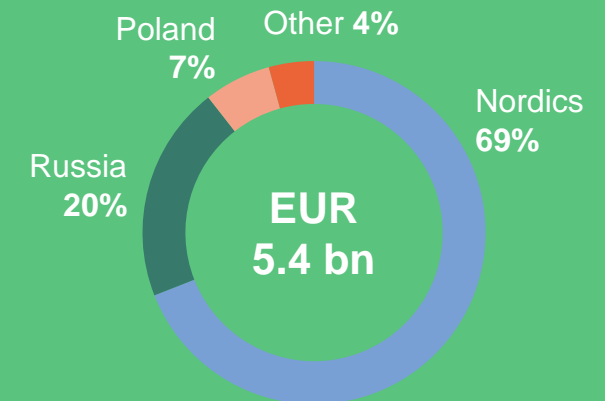


Baltic countries

Power generation
0.7 TWh

Heat sales
1.5 TWh

Sales by market area 2019



x

= Fortum market share ranking

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

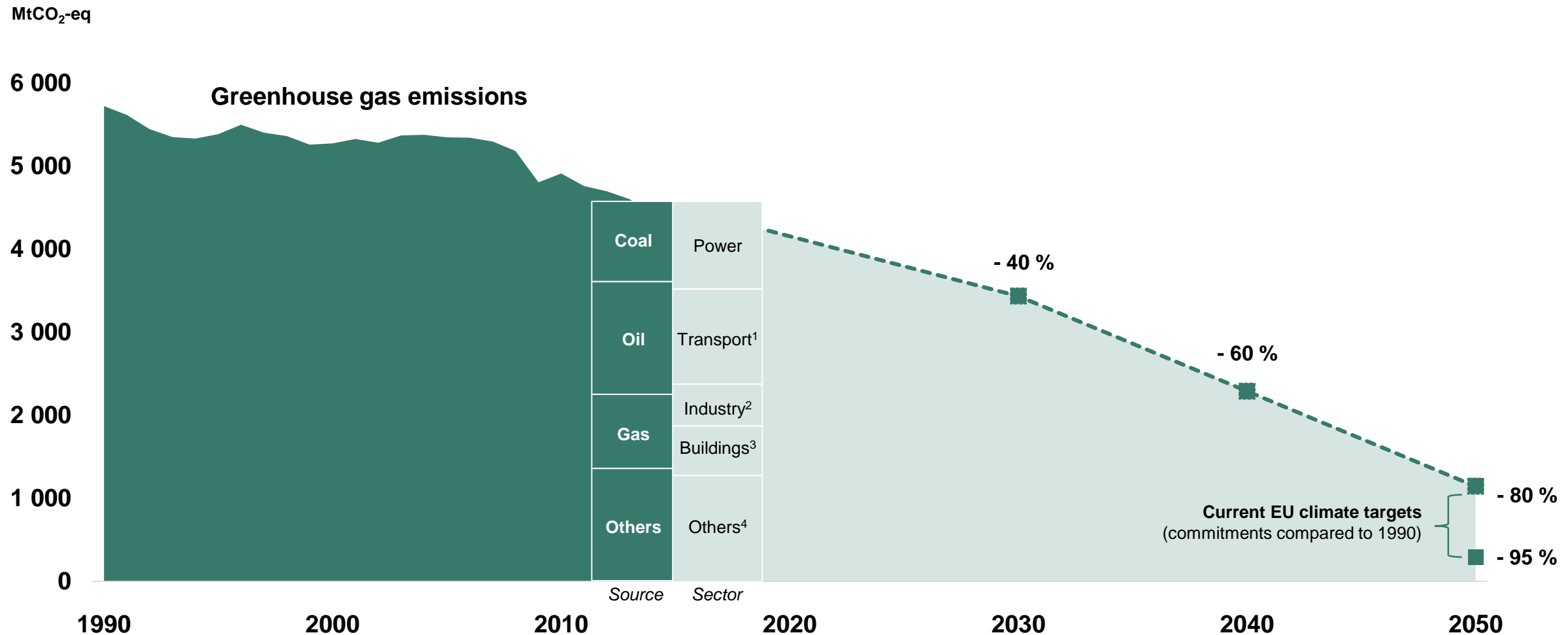
Politics and Regulation

- 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



Sources: European Environmental Agency (total emissions), IEA World Energy Outlook 2018 (fuel emissions), EURELECTRIC (sector emissions), Fortum Industrial Intelligence

¹ including international aviation and marine

² iron & steel and chemicals are among the biggest contributors

³ residential and commercial heating & cooling

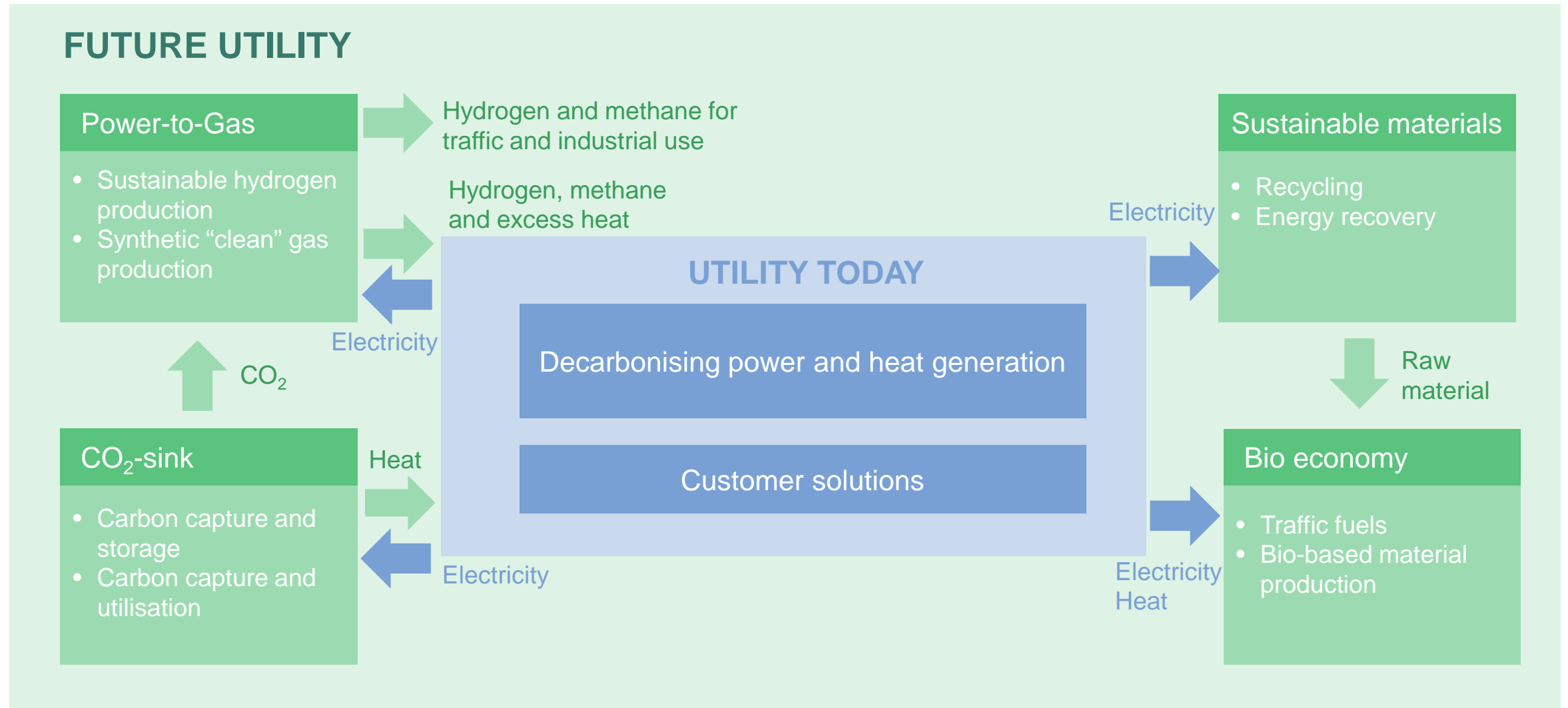
⁴ non-energy related emissions: industrial processes and product use, waste management, agriculture, fugitive emissions

The decades of electricity will affect several sectors – and Fortum is well positioned for decarbonisation

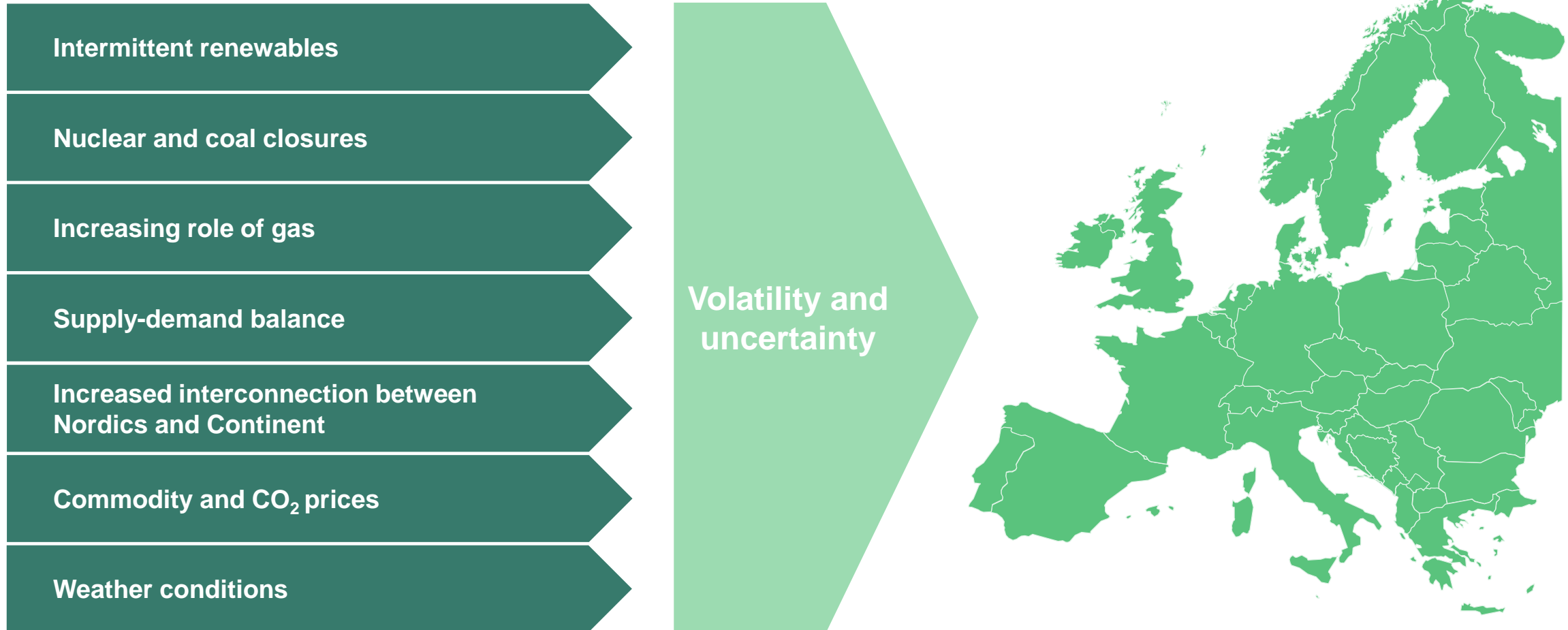
Global climate challenge (indicative)	Electricity demand (2018-2050)	Sector	Future solutions, examples	Fortum's current offering, examples
4°C	+	Power	CO ₂ -free generation, hydrogen, batteries, demand response	Nuclear, hydro, solar, wind
		Transport	Electric vehicles, hydrogen/biofuels for heavy transport	E-mobility, pyrolysis
		Heating & cooling	Low-CO ₂ DH/CHP, heat pumps, hydrogen	Biofuel, waste-to-energy DH/CHP
1.5°C	+++	Industry	Electrified processes, hydrogen, resource efficiency, CCS	B2B solutions
		Other	Recycling, biomaterials (e.g. fractioning)	Plastic recycling

DH/CHP = District heating/combined heat and power
CCS = Carbon capture and storage

Building the utility of the future

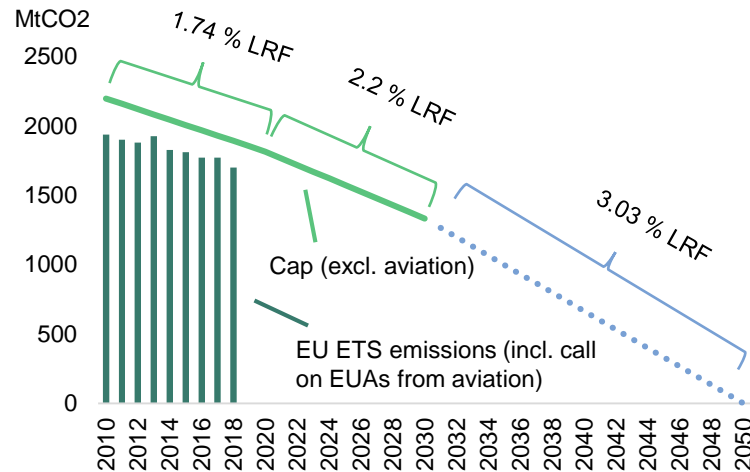


Volatility and uncertainty in the European power market increases the value of flexible assets



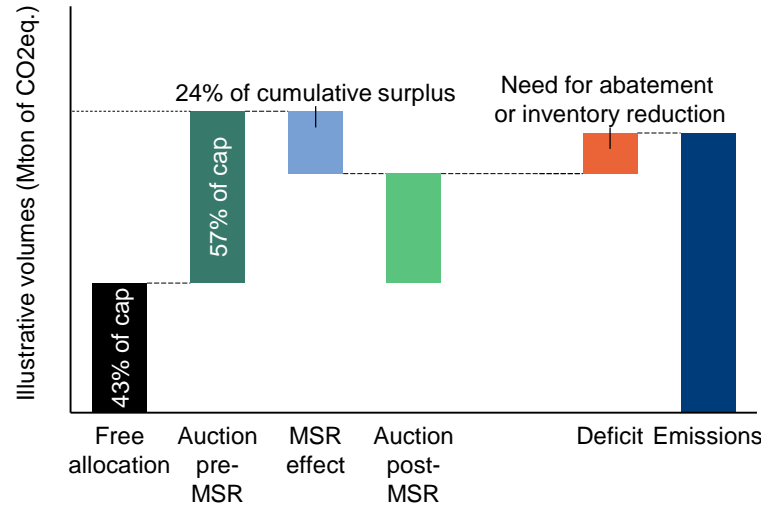
The MSR introduces tightness to carbon market

Linear reduction factor (LRF) tightens the market



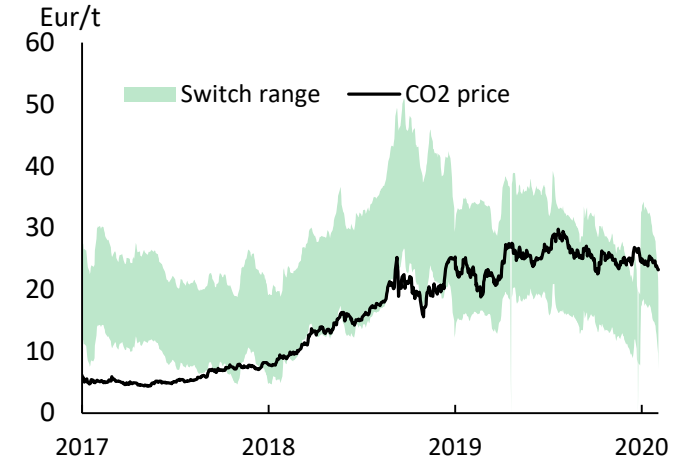
- Linear reduction factor (LRF) is the percentage of baseline supply¹ by which the annual supply of allowances (cap) is reduced every year. LRF is set at
 - 1.74% for 2013-2020 (equals to a reduction of 38 MtCO₂/year)
 - 2.2% for 2021-2030 (equals to a reduction of 48 MtCO₂/year)
- In total, emissions 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

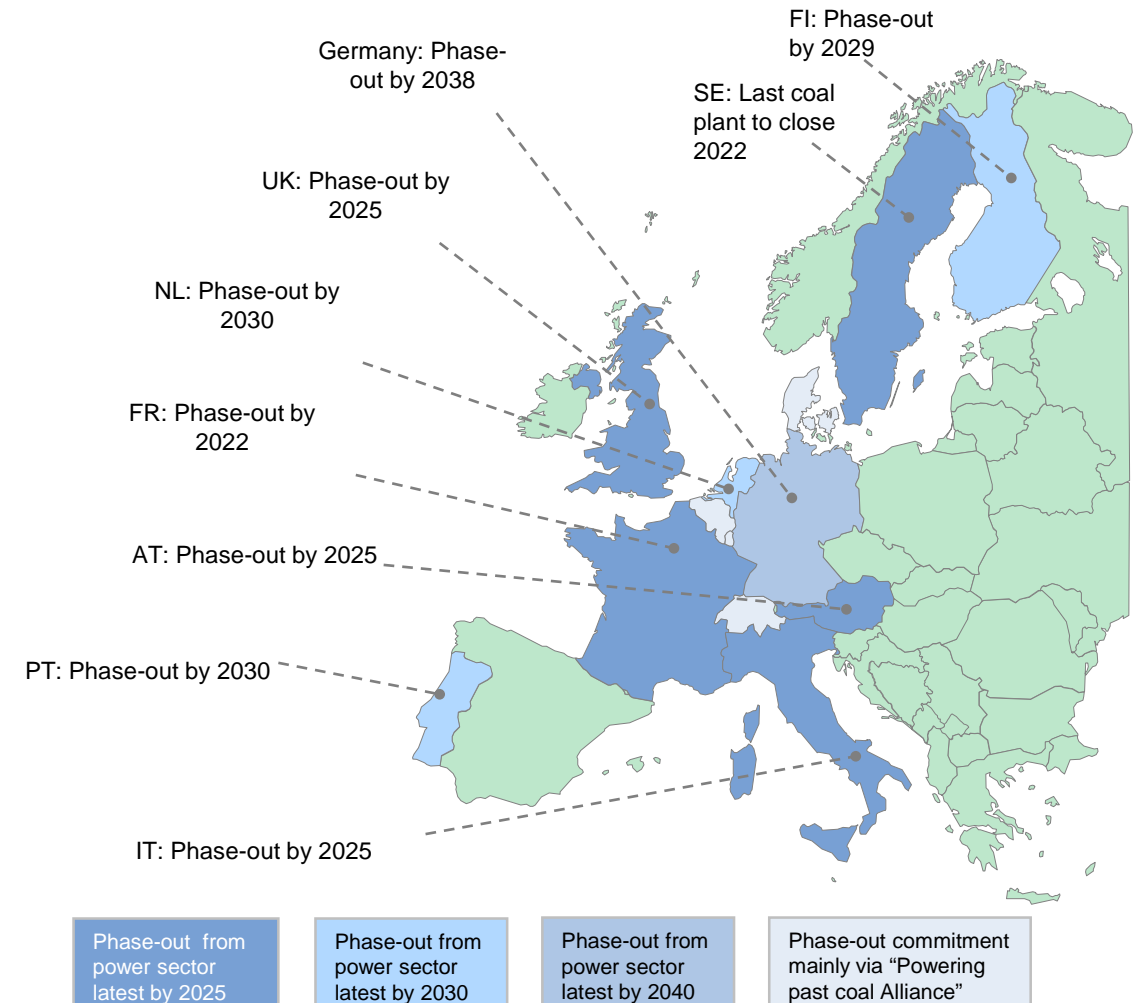
Abatement from coal to gas switching depends on coal and gas prices, together represented by a switching range



- CO₂ 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 CO₂
- 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

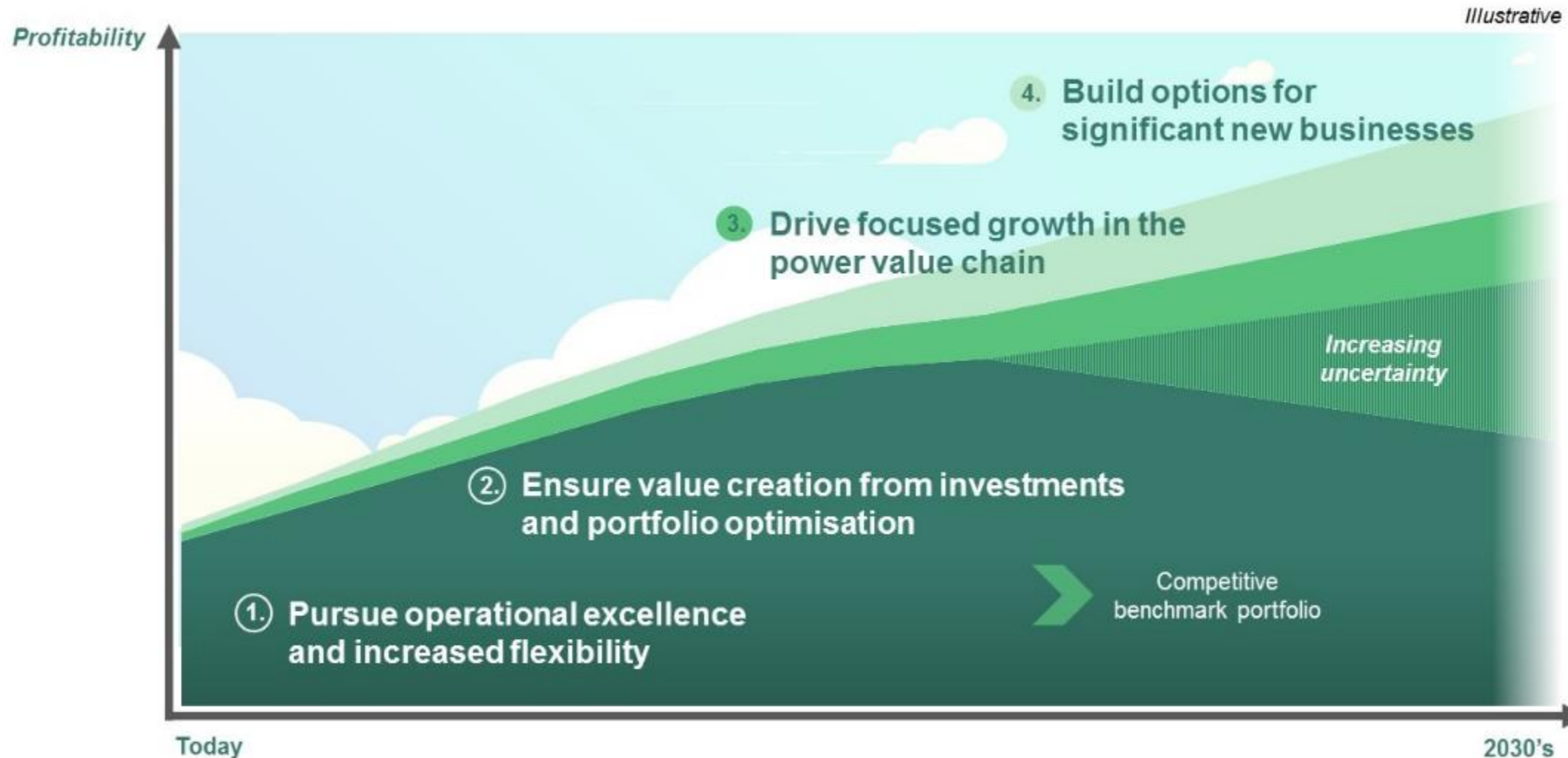
Several Western European countries exiting coal over the next decade

- 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 to set a binding coal exit date
 - Closure of 12.5 GW by 2022 (compared to 42.5 GW in 2017), additional 13 GW by 2030, latest 2038 all remaining capacity
 - Compensation for hard coal operators expected to be based on auctions, lignite operators negotiate compensations directly with the government
 - Coal regions to receive EUR 40 billion over next 20 years
 - EUR 2 billion annual compensation to customers in lower grid fees and/or taxes proposed
 - Respective amount of CO₂ allowances to be cancelled in the EU Emission Trading Scheme (ETS)



Positioning Fortum for the decade of electricity

– *For a cleaner world*



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

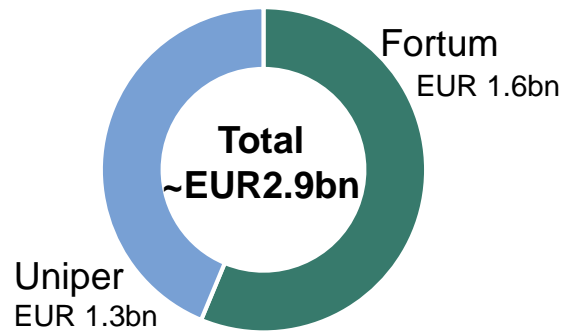
- Ensure competitive asset fit for changing business environment
- Focus on core businesses
- Selective investments

... creating value

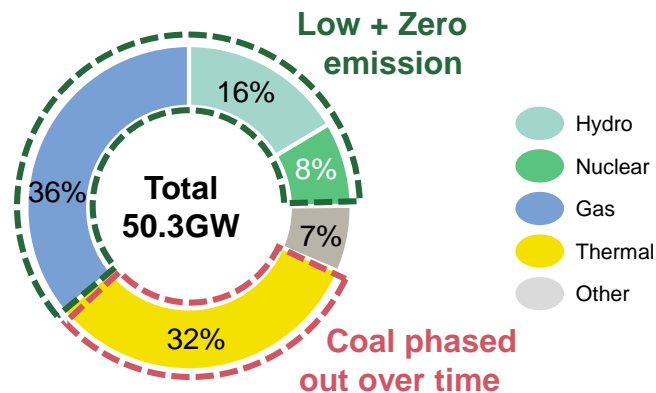
- Benchmark performance
- Optimise cash flow
- Strengthen balance sheet
- Create financial flexibility
- Solid investment grade rating

Scale, competences and resources to prosper, grow and lead European energy transition

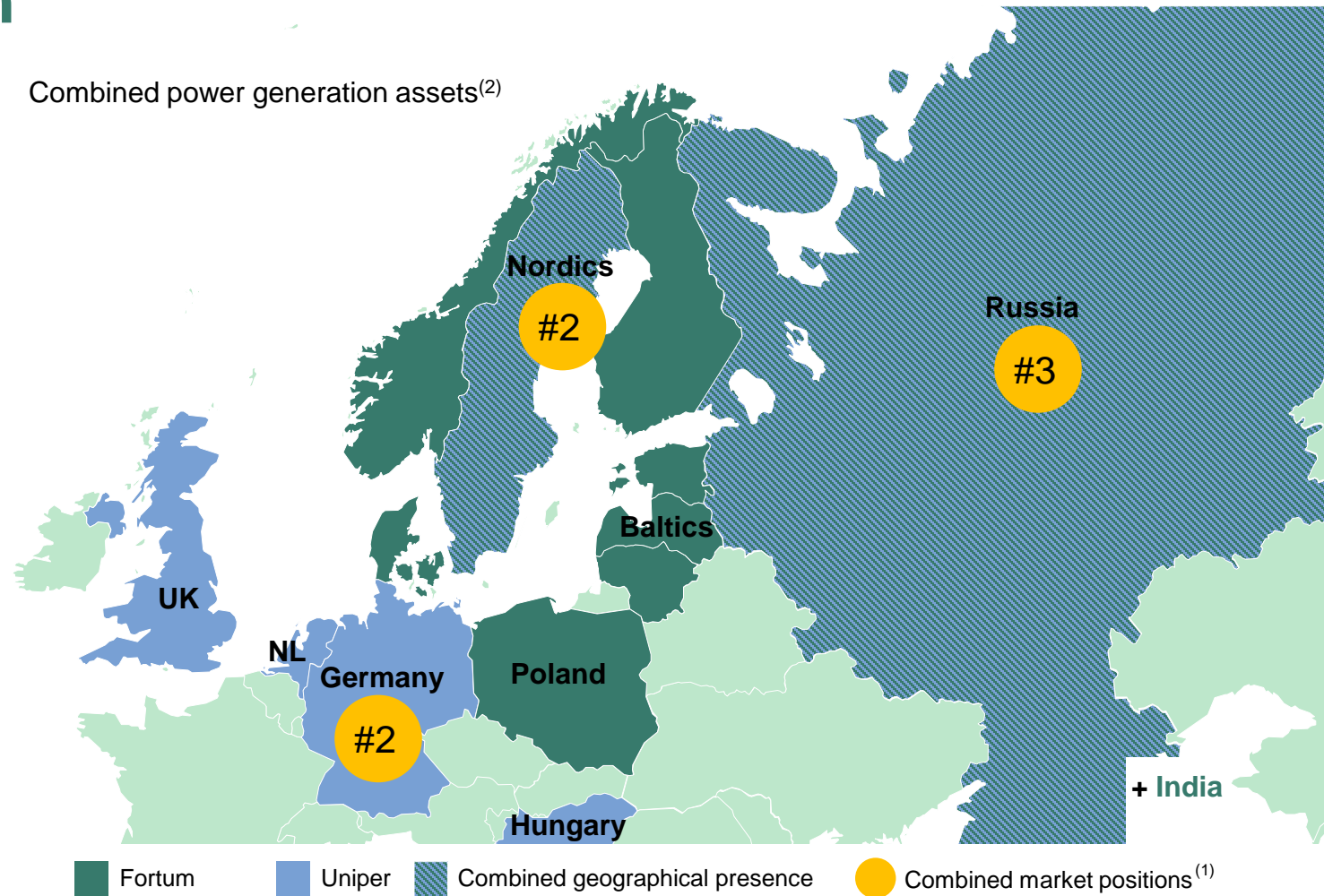
Q2 2019 LTM combined
Comparable EBITDA⁽¹⁾



Combined capacity split⁽³⁾



Combined power generation assets⁽²⁾



(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. 2018 capacity.

Illustrative combined key financials

Financial information in the table below is derived and based on Fortum's Half-year Financial Report January-June 2019 and Financials 2018 and Uniper's Half-year Interim Report 2019 and Annual Report 2018

EUR million	Fortum LTM Q2 2019	Uniper LTM Q2 2019	Impact from transaction ⁽⁴⁾	Combined LTM Q2 2019
Sales	5,404	78,928		84,332
Comparable EBITDA ⁽¹⁾	1,621	1,260		2,881
Capex ⁽²⁾	715	638		1,353
Interest-bearing liabilities, 30 June 2019 ⁽³⁾	6,719	1,570	2,253	10,542
Liquid funds, 30 June 2019 ⁽³⁾	1,297	717		2,014
Net interest-bearing liabilities, 30 June 2019 ⁽³⁾	5,422	853	2,253	8,528
Number of employees, 30 June 2019	8,383	11,962		20,345

Combined key financials are presented for illustrative purposes only and they do not include possible impacts from aligning differences in accounting principles, effects from co-owned power companies or eliminations of sales, purchases, receivables and payables between the Groups.

(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) Capex is based on Fortum's reported Capex and Uniper's reported Investments.

(3) Fortum's interest-bearing liabilities and liquid funds as defined in Fortum's financial statements. Uniper's Interest-bearing liabilities includes 'Financial liabilities and liabilities from leases' as defined in Uniper's financial statements (but excludes 'Margining liabilities' amounting to EUR 1,002 million). Liquid funds as defined in Uniper's financial statements. Please see further information regarding Fortum's Net debt and Uniper's Net financial position and Economic net debt in their respective financial statements.

(4) 'Impact from transaction' is based on the acquisition of approximately 20.5% of Uniper's outstanding share capital at a price of EUR 29.93 per share.

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 has almost tripled from 15 TWh in 1990 to 43 TWh in 2018

Among the lowest specific emissions

96% of its power generation in the EU and 57% of its total power generation was CO₂-free in 2018. Fortum's specific emissions from power generation in the EU were 28 gCO₂/kWh in 2018, total 174 gCO₂/kWh.

Growing in solar and wind

Targeting a multi-gigawatt portfolio in solar and wind

Fortum listed in several sustainability indexes and ratings:



FTSE4Good



Fortum's long-term financial targets and dividend policy

Return on capital employed
(ROCE) of at least

10%

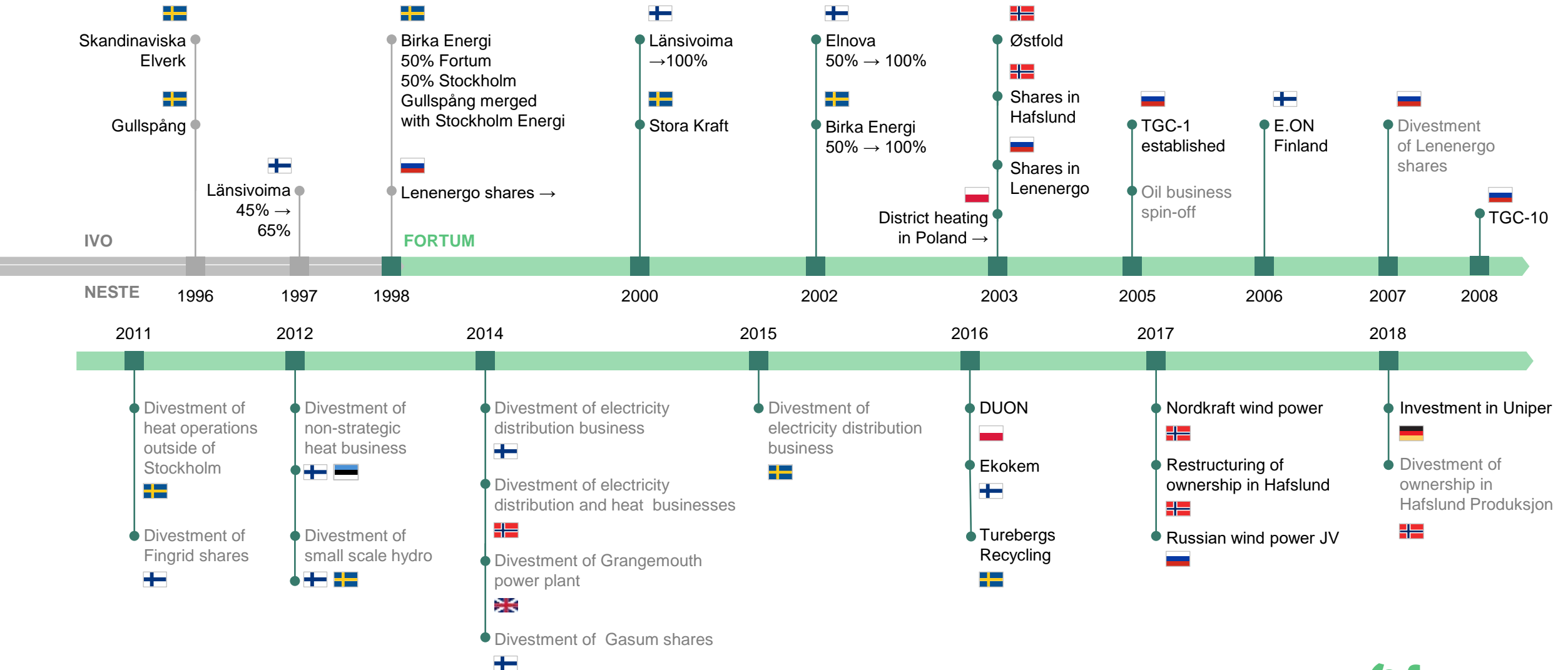
Comparable
Net debt/EBITDA ratio
at around

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

Fortum's evolution and historical strategic route





Financial Statements 2019

Fortum Corporation
6 February 2020

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



Joensuu CHP, Finland

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
Joensuu CHP plant,
EUR 530 million

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

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

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

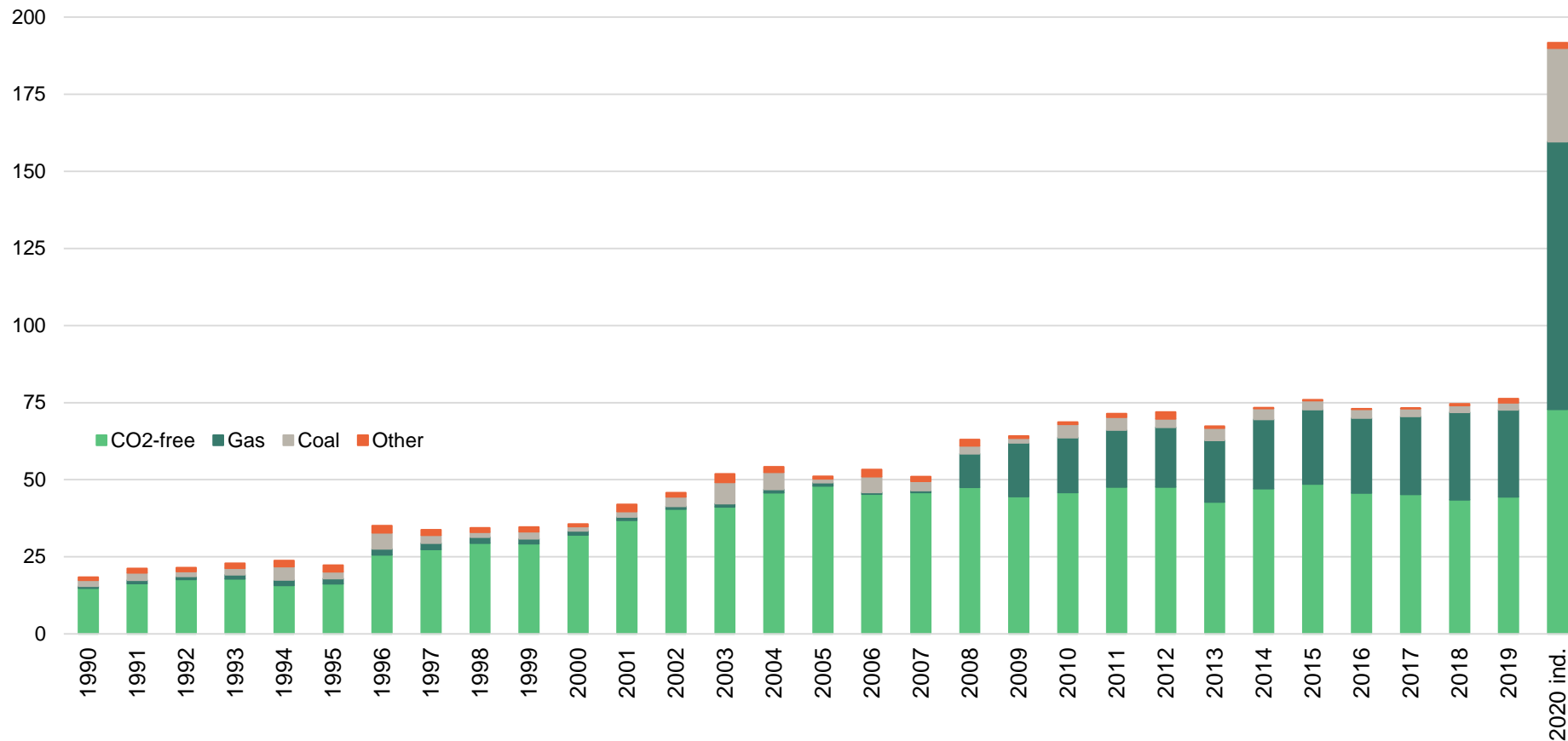
Commissioning of
a 250 MW solar
plant in Pavagada,
India

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

Imatra HPP, Finland

Fortum's CO₂-free power generation to increase by ~60% as Uniper will be consolidated in 2020

Fortum's power generation, TWh



Uniper consolidated 2020:

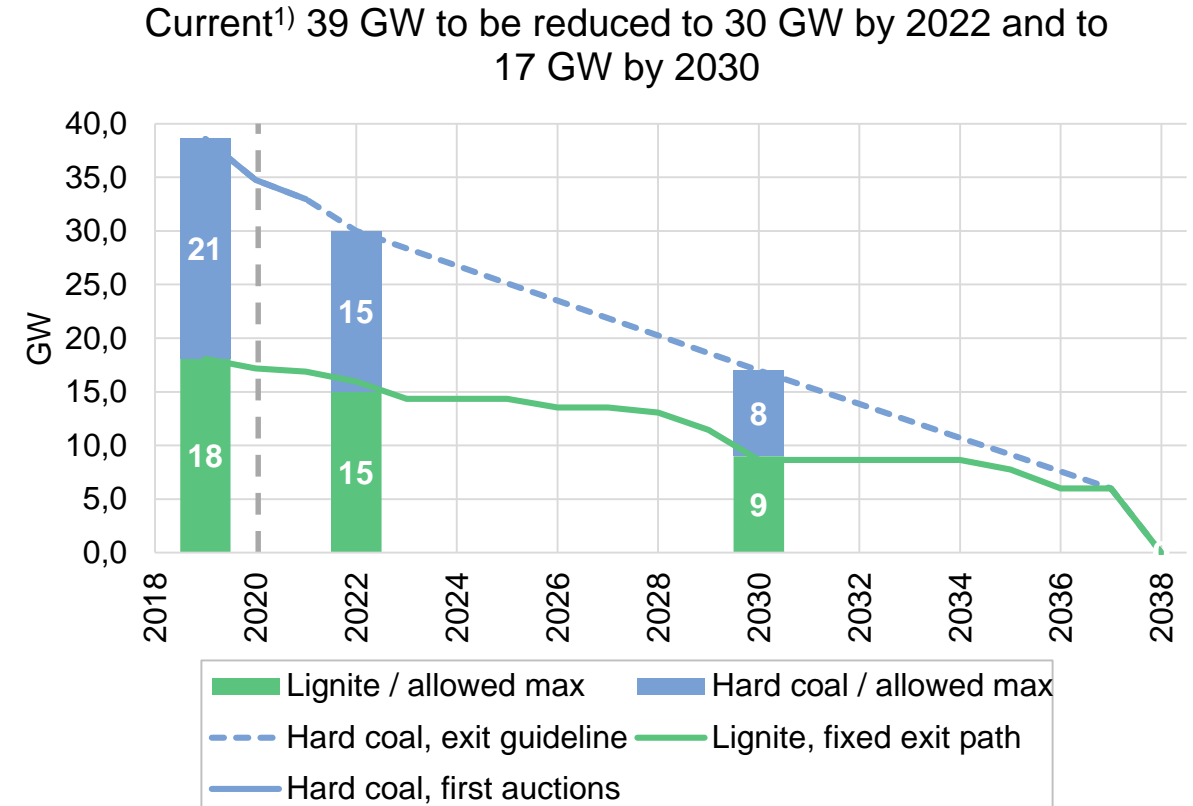
- ~60% increase in total CO₂-free generation
- ~200% increase in gas fired power generation
- ~16% of total generation is coal-fired
- ~2% of consolidated sales revenue derives from coal

INDICATIVE GENERATION FOR 2020, NOT OFFICIAL GUIDANCE.

Note: Fortum actuals 1990-2019 excluding associated company Stockholm Exergi. 2020 indicative figures adjusted for Nordic wind and Joensuu CHP assets sold in 2020. Uniper's disclosed 2018 numbers used for indicative consolidation 2020 with the following corrections/assumptions: normal hydrological year, accounting view adjusted to pro forma, French coal assets sold, Datteln 4 approximately 2.2 TWh in 2020, no net increase in generation from Beresovskaya 3, coal-to-gas switch 2 TWh, Ringhals 2 closed on 31 Dec 2019.

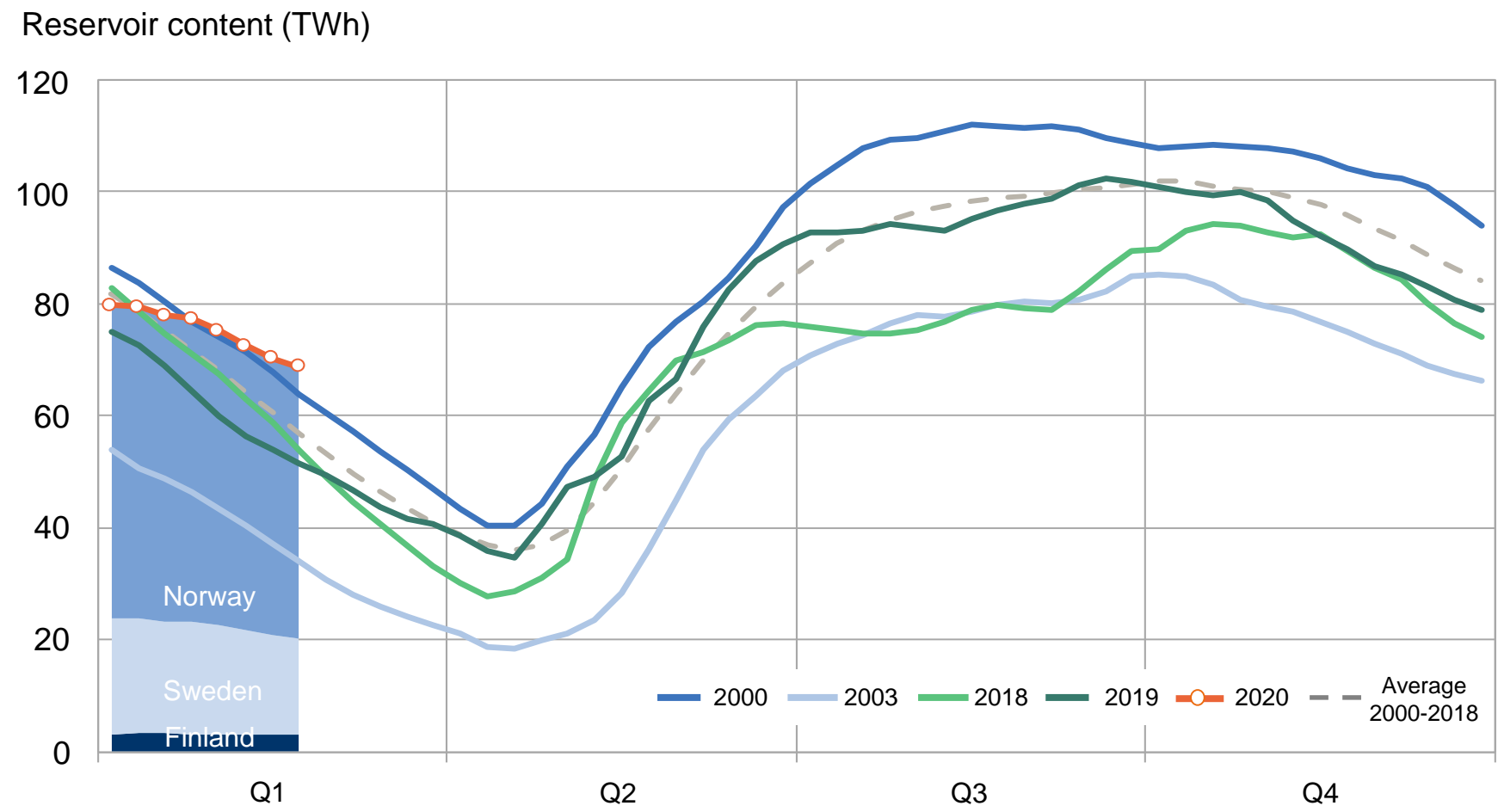
German coal phase-out law and related plans by Uniper

- 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

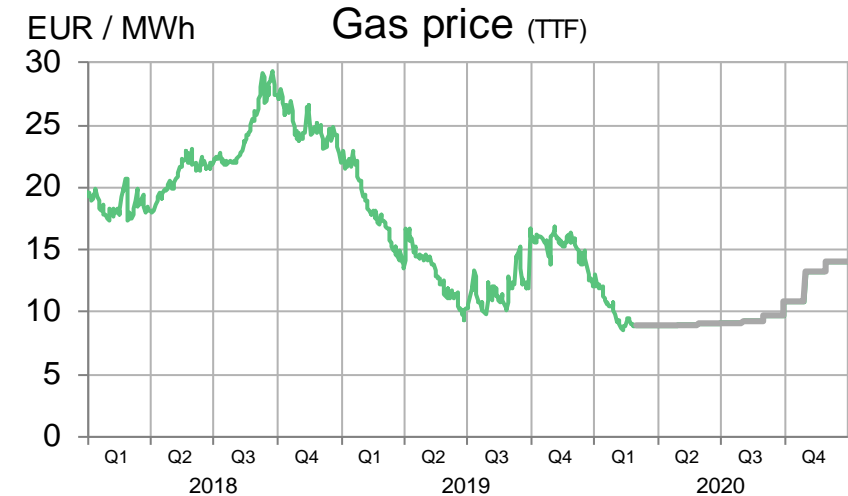
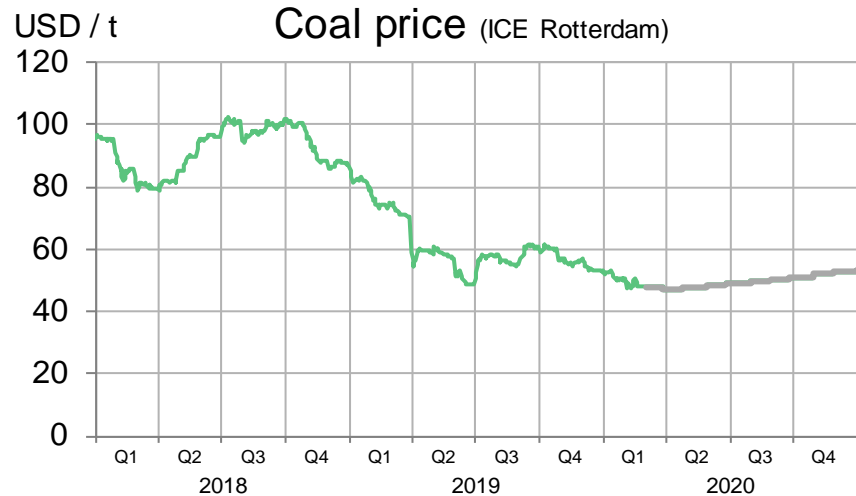
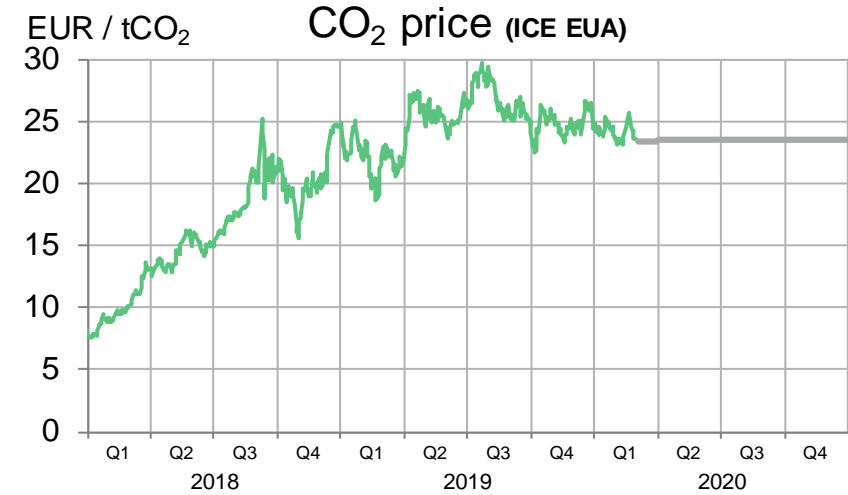
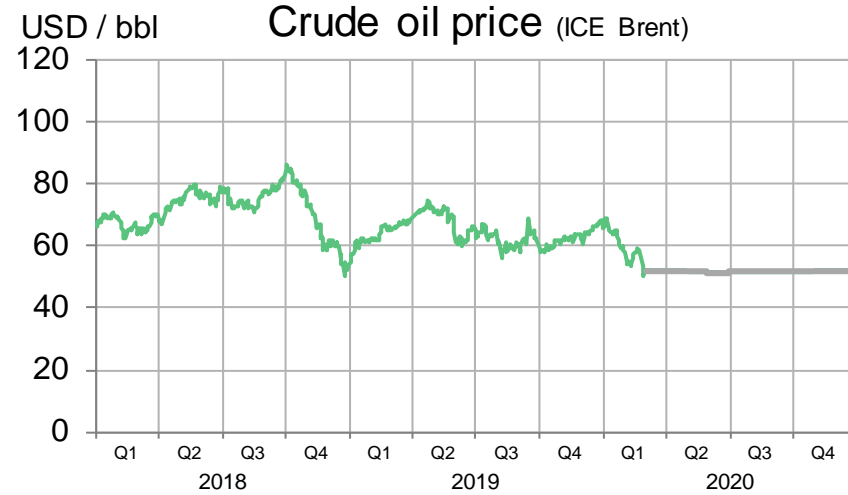


1) Source: Bundesnetzagentur, status as of November 2019

Nordic water reservoirs



Fuel and CO₂ allowance prices



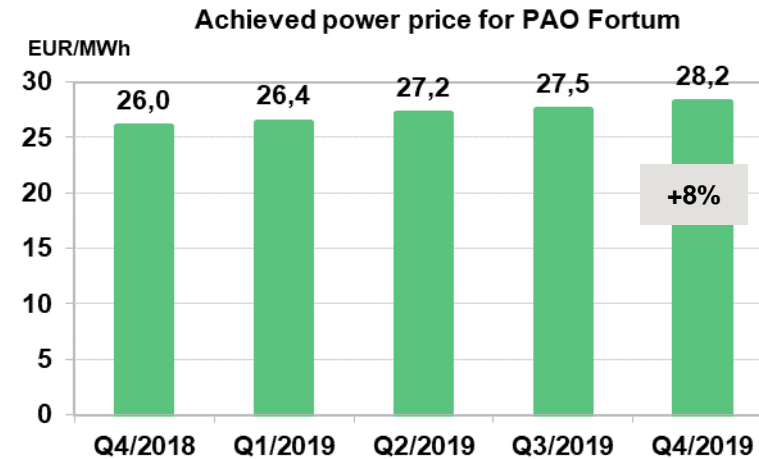
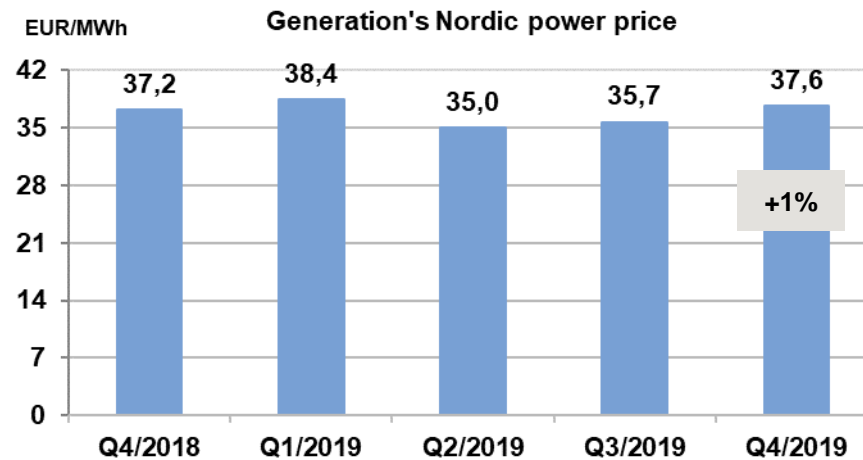
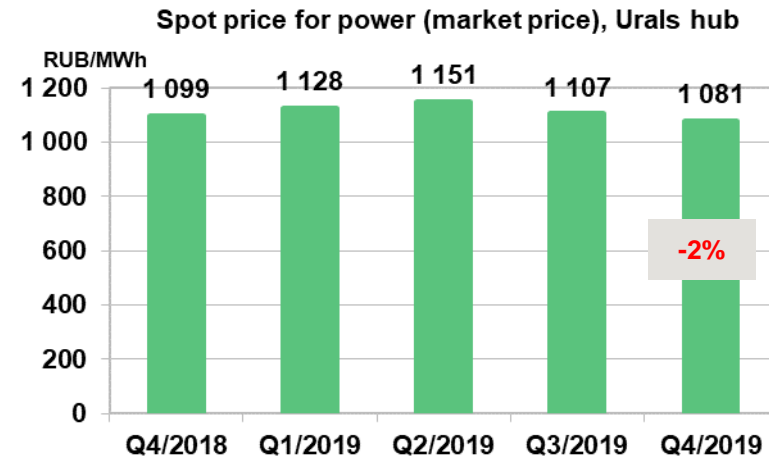
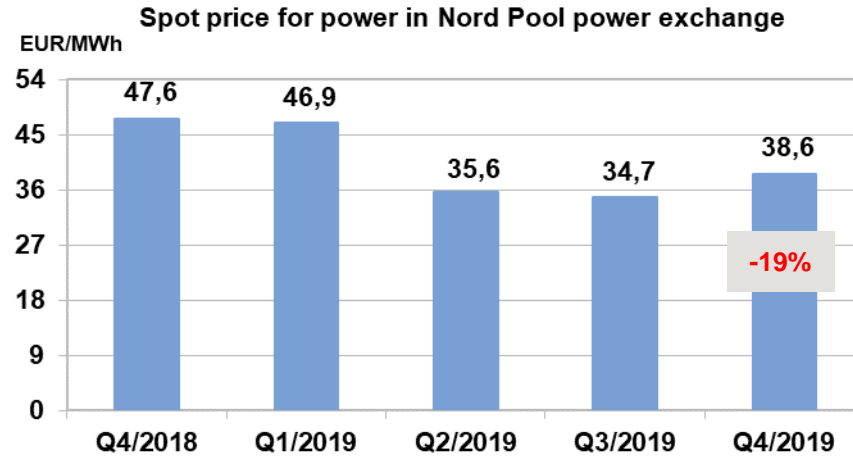
Source: ICE, Refinitiv

Market prices 2 March 2020; 2020 future quotations

Wholesale power price



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

MEUR	Q4 2019	Q4 2018	2019	2018
Sales	583	557	2,141	1,842
Comparable EBITDA	278	225	939	763
Comparable operating profit	239	188	794	628
Comparable net assets			6,147	6,485
Comparable RONA %			12.8	10.8
Gross investments	77	92	260	262



Loviisa, Finland

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

MEUR	Q4 2019	Q4 2018	2019	2018
Sales	366	359	1,200	1,110
Comparable EBITDA	129	109	309	310
Comparable operating profit	80	64	121	135
Comparable net assets			3,892	3,794
Comparable RONA %			4.7	5.5
Gross investments	61	85	322	242



Klaipeda, Lithuania

Consumer Solutions

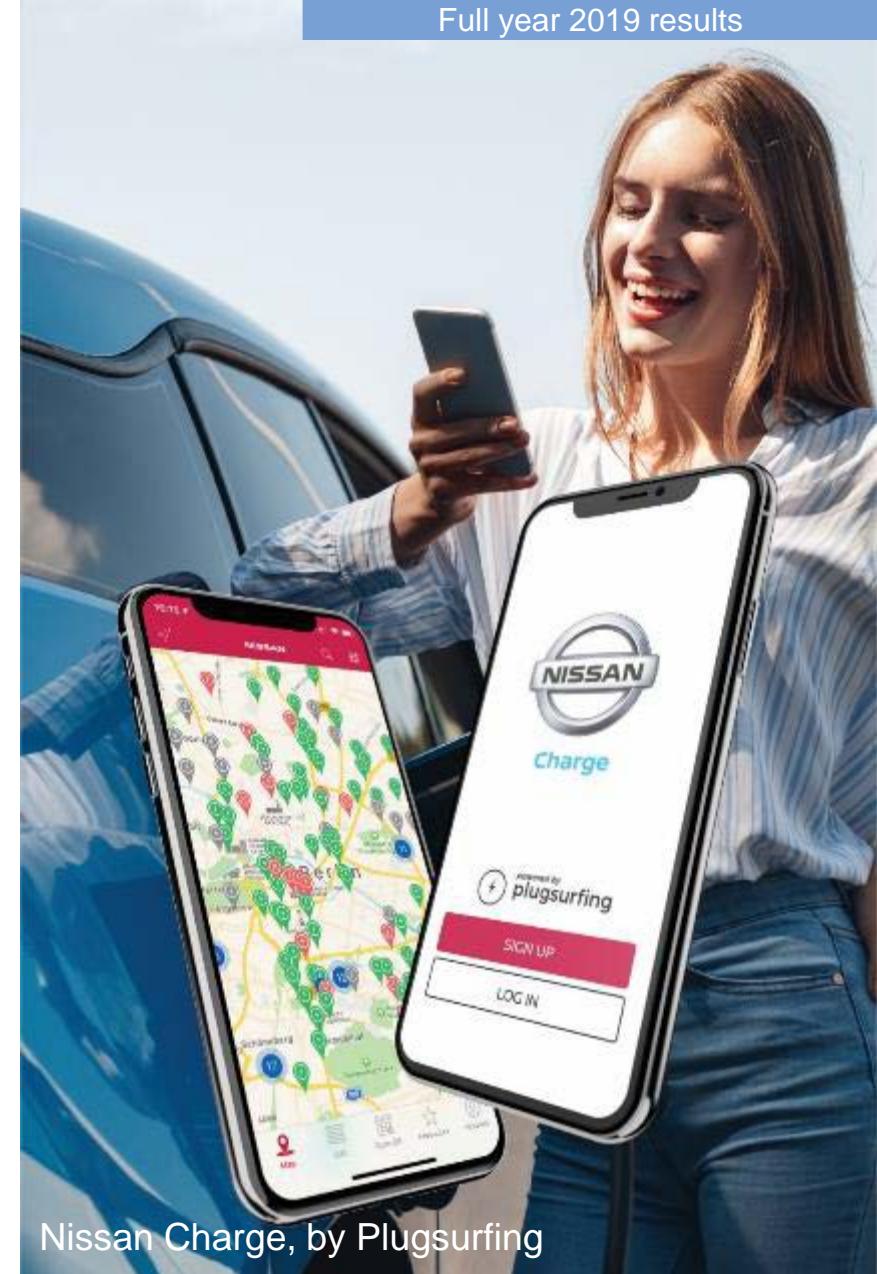
Q4 2019

- 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

MEUR	Q4 2019	Q4 2018	2019	2018
Sales	510	555	1,835	1,759
Comparable EBITDA	35	31	141	110
Comparable operating profit	19	17	79	53
Comparable net assets			640	648
Customer base, million			2.38	2.47
Gross investments	15	14	55	47



Nissan Charge, by Plugsurfing

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

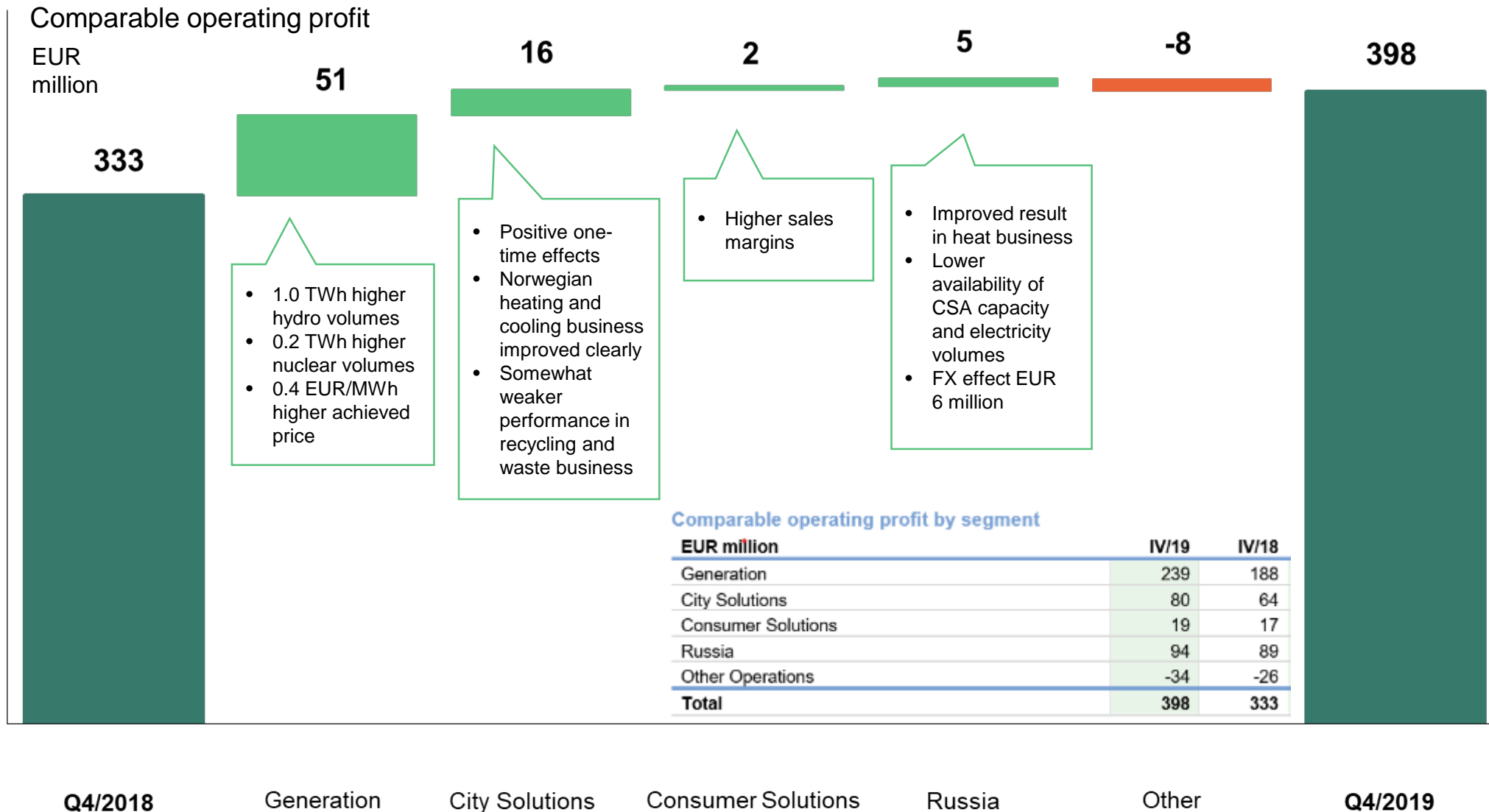
MEUR	Q4 2019	Q4 2018	2019	2018
Sales	306	305	1,071	1,069
Comparable EBITDA	136	127	469	417
Comparable operating profit	94	89	316	271
Comparable net assets			3,205	2,789
Comparable RONA %			12.3	10.3
Gross investments	98	66	133	117

CSA=Capacity Supply Agreement

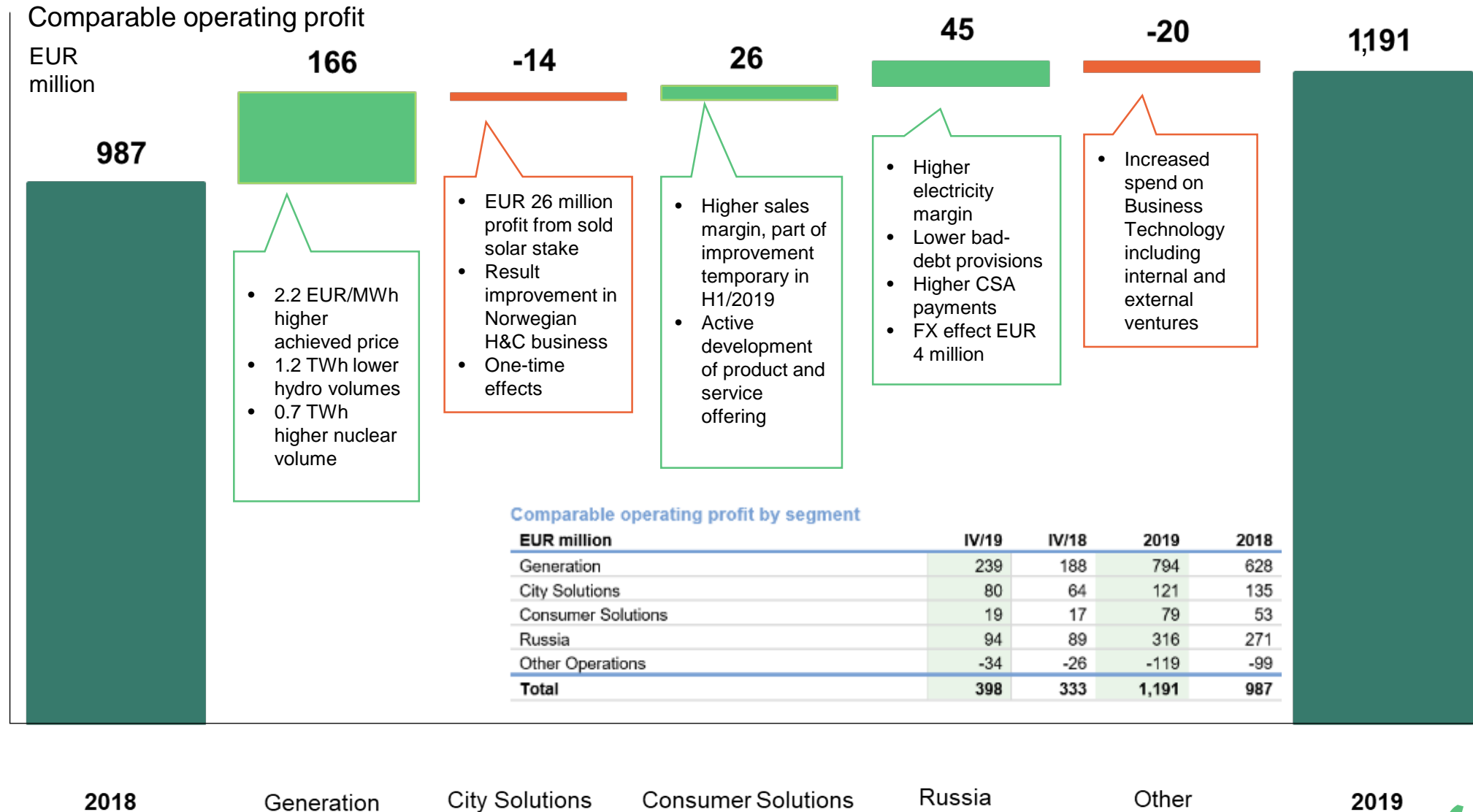


Chelyabinsk, Russia

Q4 2019 – strong performance and improved results



FY 2019 – solid operational performance in all businesses



Key financials

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

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

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

Full year 2019

- 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

MEUR	Q4 2019	Q4 2018	2019	2018
Comparable EBITDA	552	473	1,766	1,523
Realised FX gains/losses	3	26	14	231
Paid net financial costs, income taxes and other	-73	-62	-327	-341
Dividends received	0	7	239	61
Change in working capital	-234	-180	-33	-146
Change in settlements for futures	14	-226	356	-524
Net cash from operating activities	261	38	2,015	804
Capital expenditures	-166	-185	-695	-579
Acquisitions of shares	-70	-175	-107	-4,088
Divestments of shares and capital returns	1	2	53	259
Change in cash collaterals and restricted cash	-9	51	311	-36
Other investing activities	37	15	69	46
Cash flow from investing activities	-207	-292	-369	-4,398
Cash flow before financing activities	55	-254	1,646	-3,594
Paid dividends to the owners of the parent	0	0	-977	-977
Paid dividends to non-controlling interests	0	0	-23	-5

Full year 2019

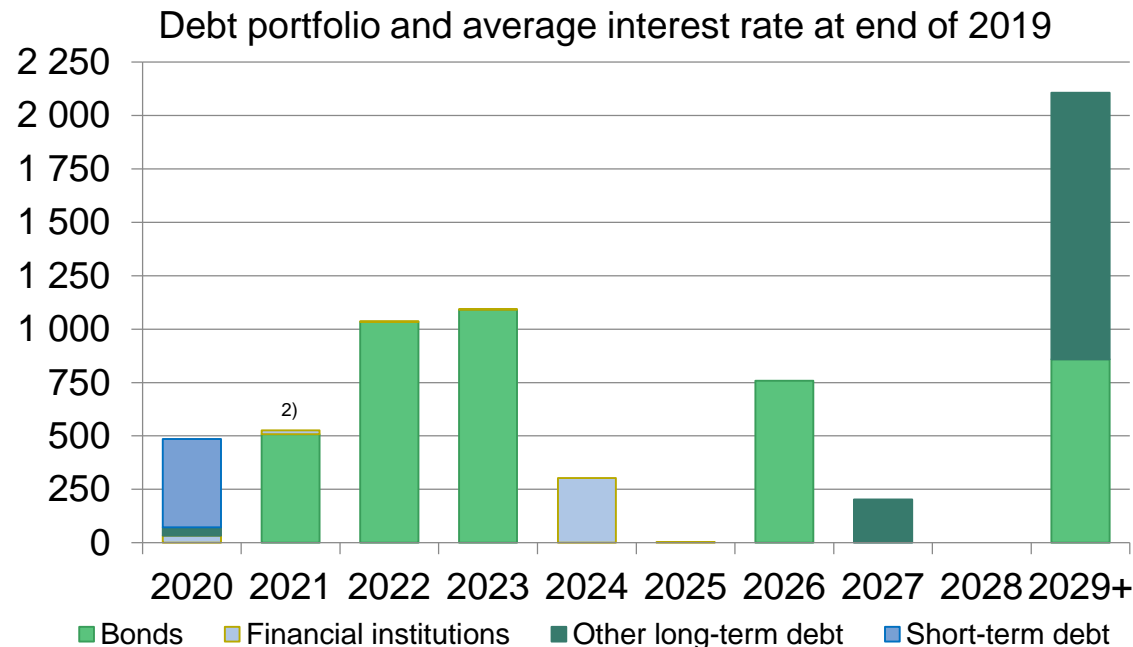
- Cash flow strengthened due to
 - Improvement in comparable EBITDA of EUR 243 million
 - Change in settlements for futures EUR 356 (-524) million
 - Dividends received from associates EUR 239 (61) million
- Acquisition of shares in 2018 mainly Uniper
- Release of pledged cash from collateral arrangement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

Long-term financial targets achieved

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

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.

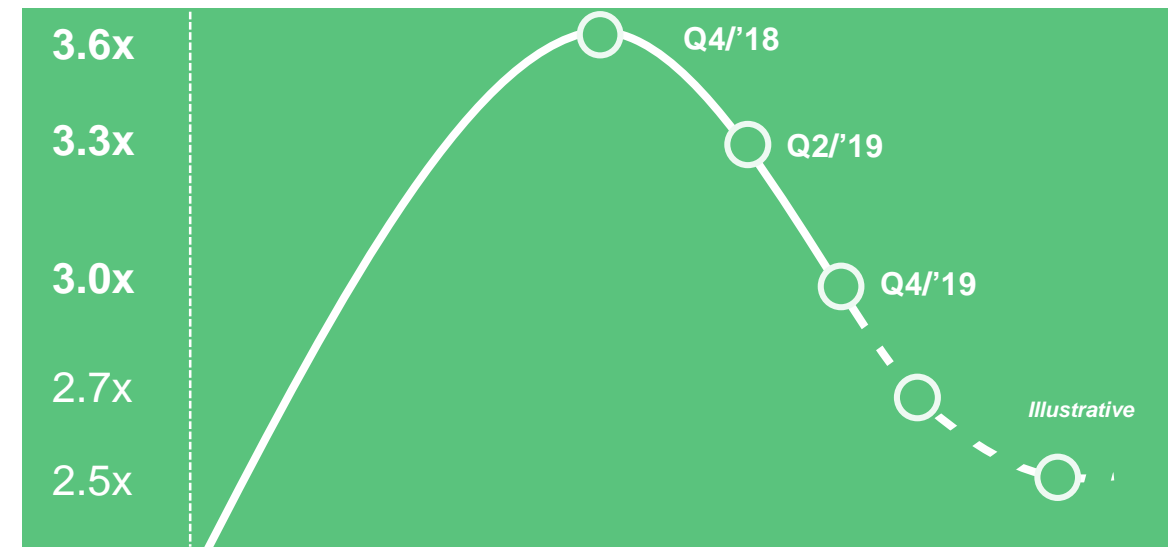
Fortum's key objective is to have a solid investment-grade rating of at least BBB

- 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

Fortum's current rating and outlook

Rating agency	Rating and outlook	Valid from
Standard & Poor's	BBB, CreditWatch Negative	9 October 2019
Fitch Ratings	BBB, Rating Watch Negative	9 October 2019

Net debt / EBITDA



Outlook

Demand growth

Electricity demand in the Nordics is expected to grow by ~0.5% on average

Hedging

2020: ~75% at EUR 34 per MWh
(Q3: 70% at EUR 33)

2021: ~40% at EUR 33 per MWh
(Q3: 35% at EUR 33)

2020 estimated annual capital expenditure,

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.

Targeted cost synergies of Hafslund transaction

City Solution synergies of EUR 5-10 million gradually materialising, fully by the end of 2020.

Consumer Solutions synergies of EUR 10 million achieved in 2019

Taxation

In Sweden, hydro assets real estate tax rate to decrease over a four-year period (2017-2020)

In 2020 ~EUR 15 million lower from the 2019 level

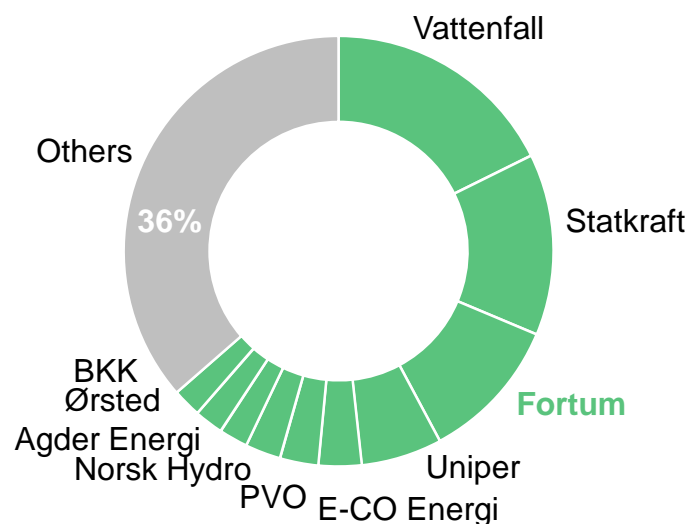
Appendices

Still a highly fragmented Nordic power market

Fortum has the largest electricity customer base in the Nordics

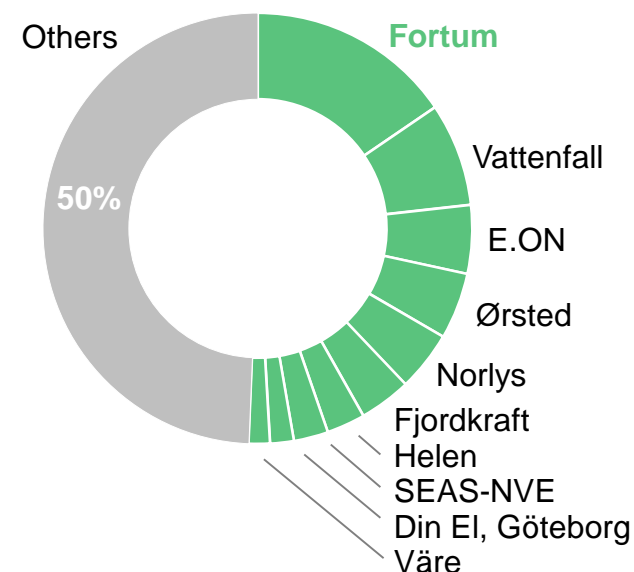
Power generation in 2018

400 TWh
>350 companies



Electricity retail

16 million customers
~350 companies



Source: Fortum, company data, shares of the largest actors, pro forma 2018 figures

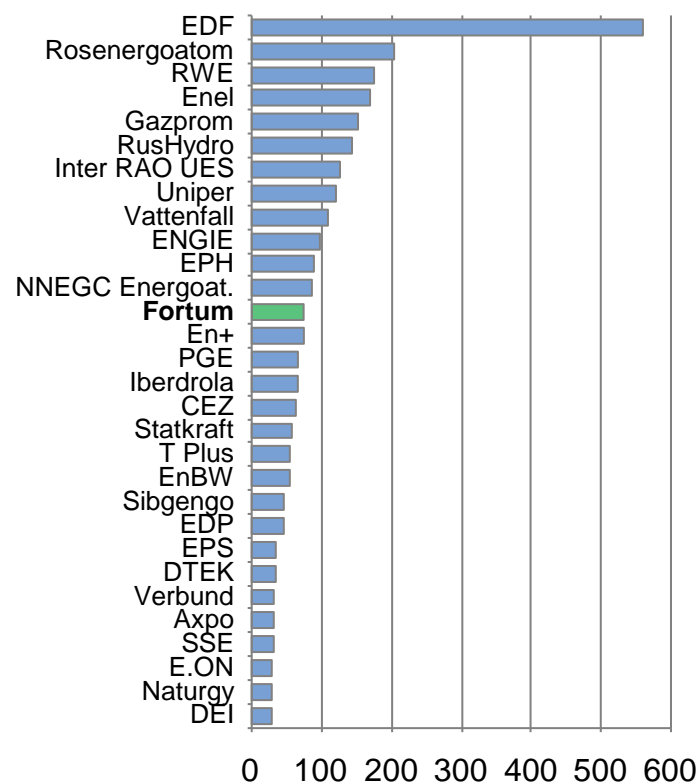
Norlys was formed through the merger of the companies SE and Eniig in Denmark

Väre was formed through the merger of the retail businesses of Savon Voima, Jyväskylän Energia, Kuopion Energia and Lappeenranta Energia in Finland

Fortum mid-sized European power generation player – major producer in global heat

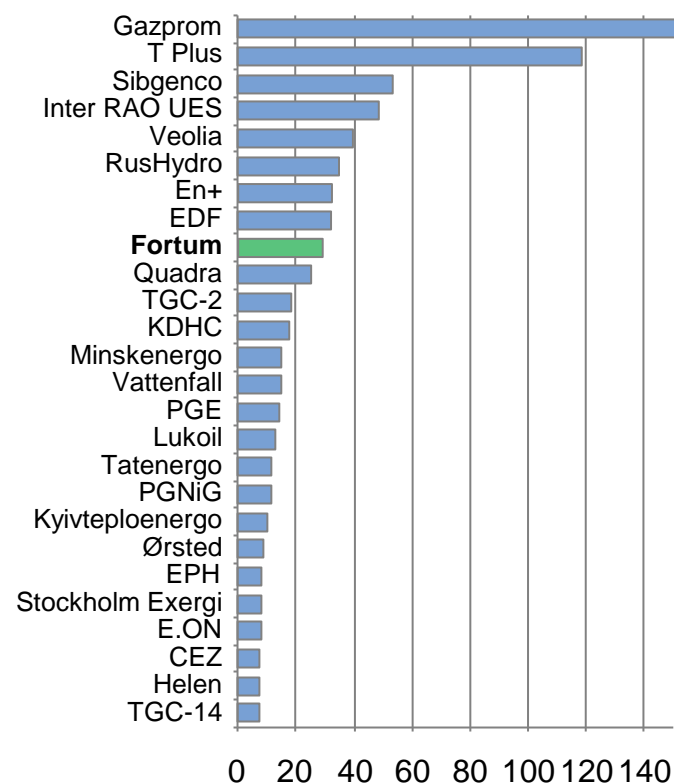
Power generation

Largest producers in Europe and Russia, 2018
TWh



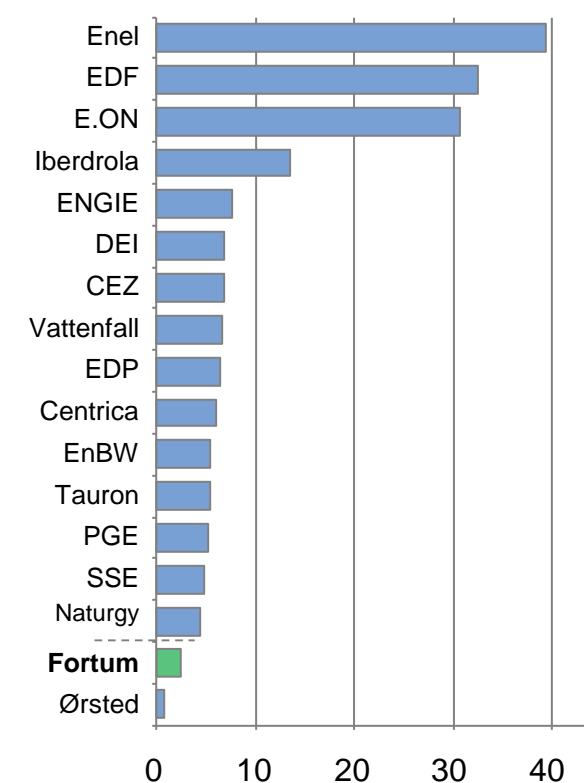
Heat production

Largest global producers, 2018
TWh

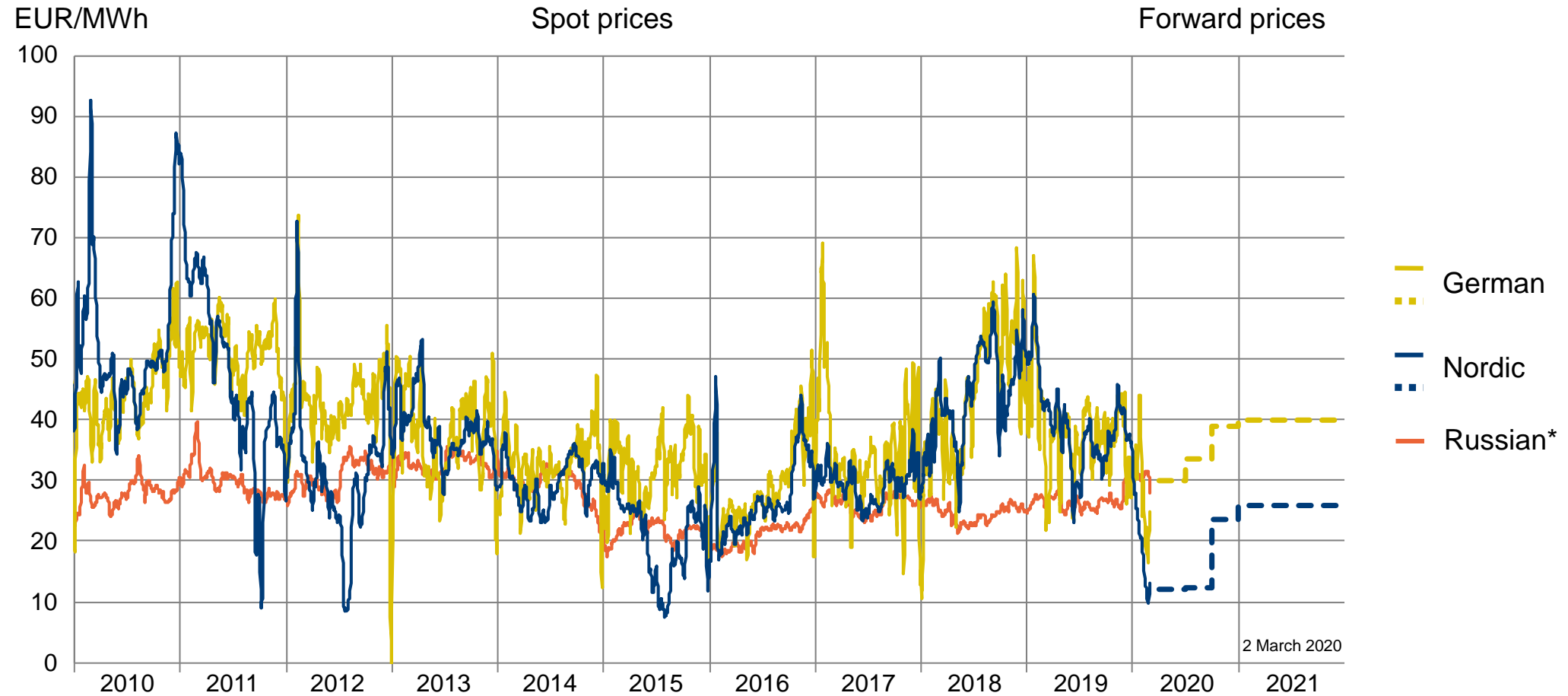


Customers

Electricity customers in Europe, 2018
Millions

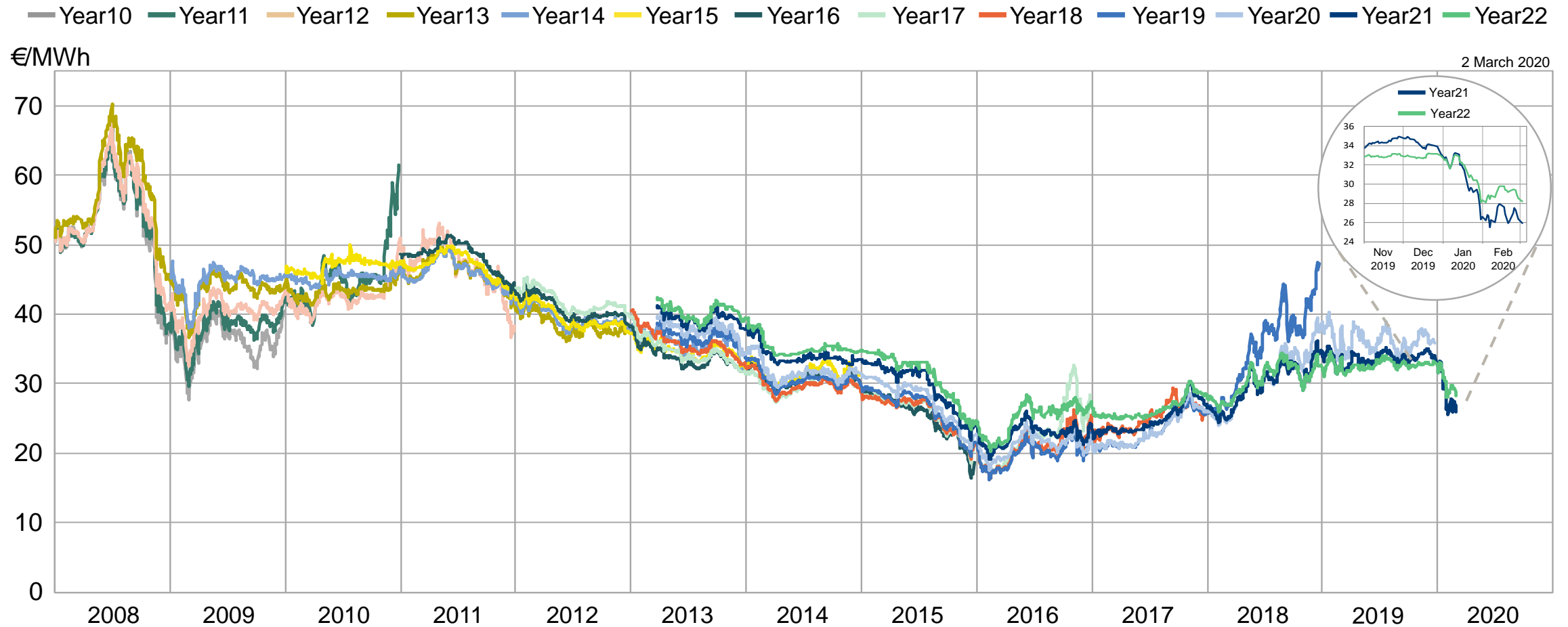


Wholesale power prices



* Including weighted average capacity price

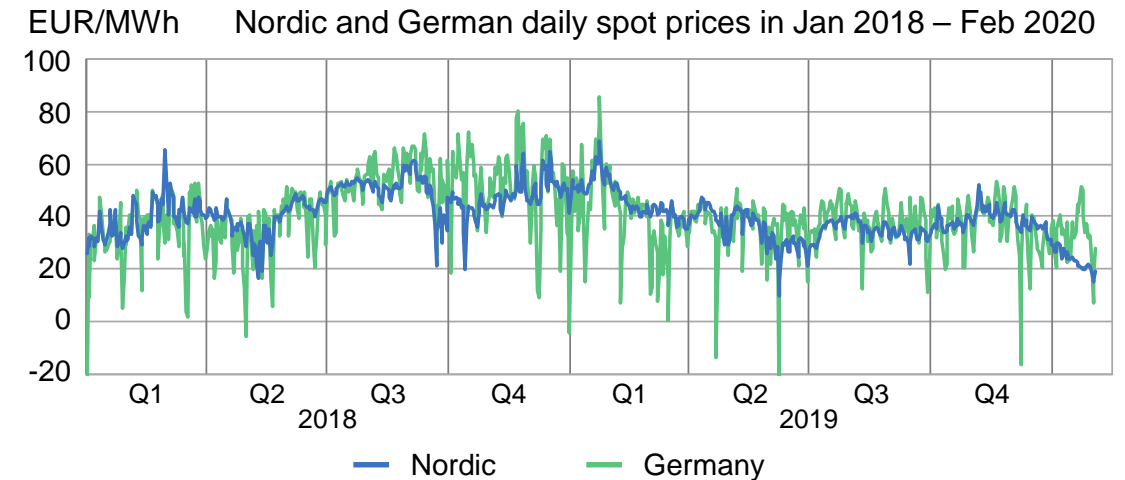
Nordic year forwards



German and Nordic forward prices softened

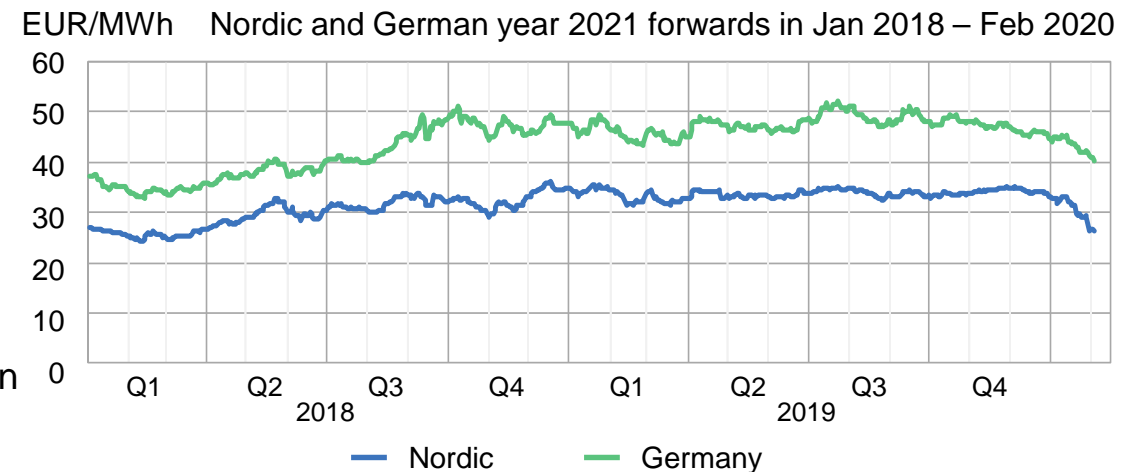
Spot price

- 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.

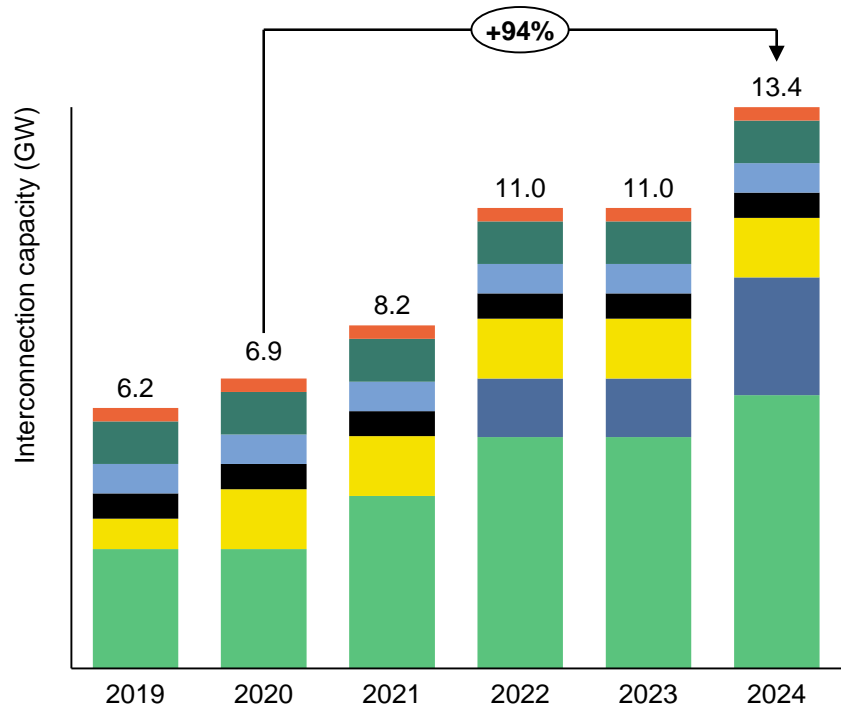


Including 3 February 2020
Source: Nord Pool, Bloomberg

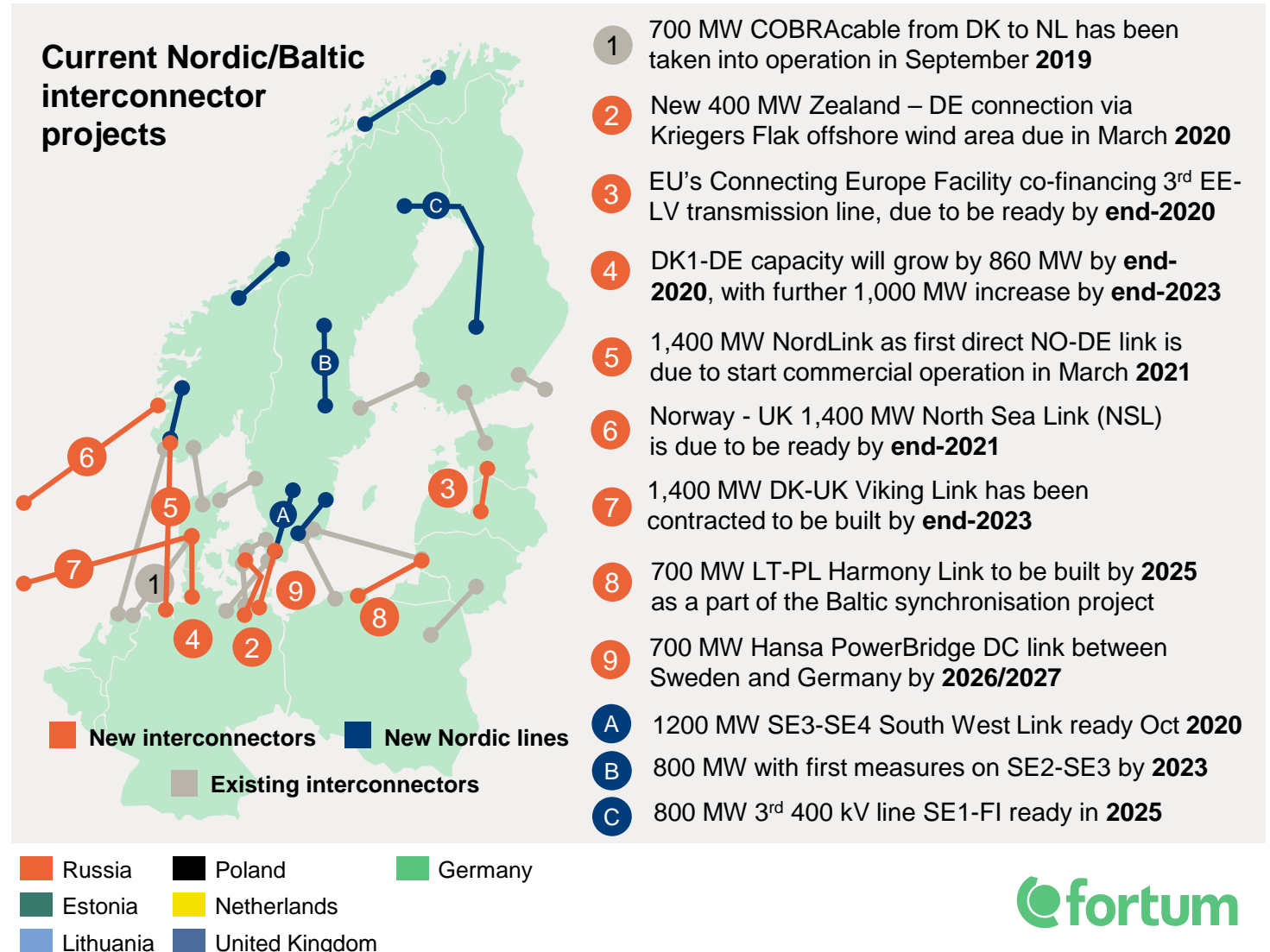
Nordic, Baltic, Continental and UK markets are integrating

– Interconnection capacity growing to over 13 GW by end-2023

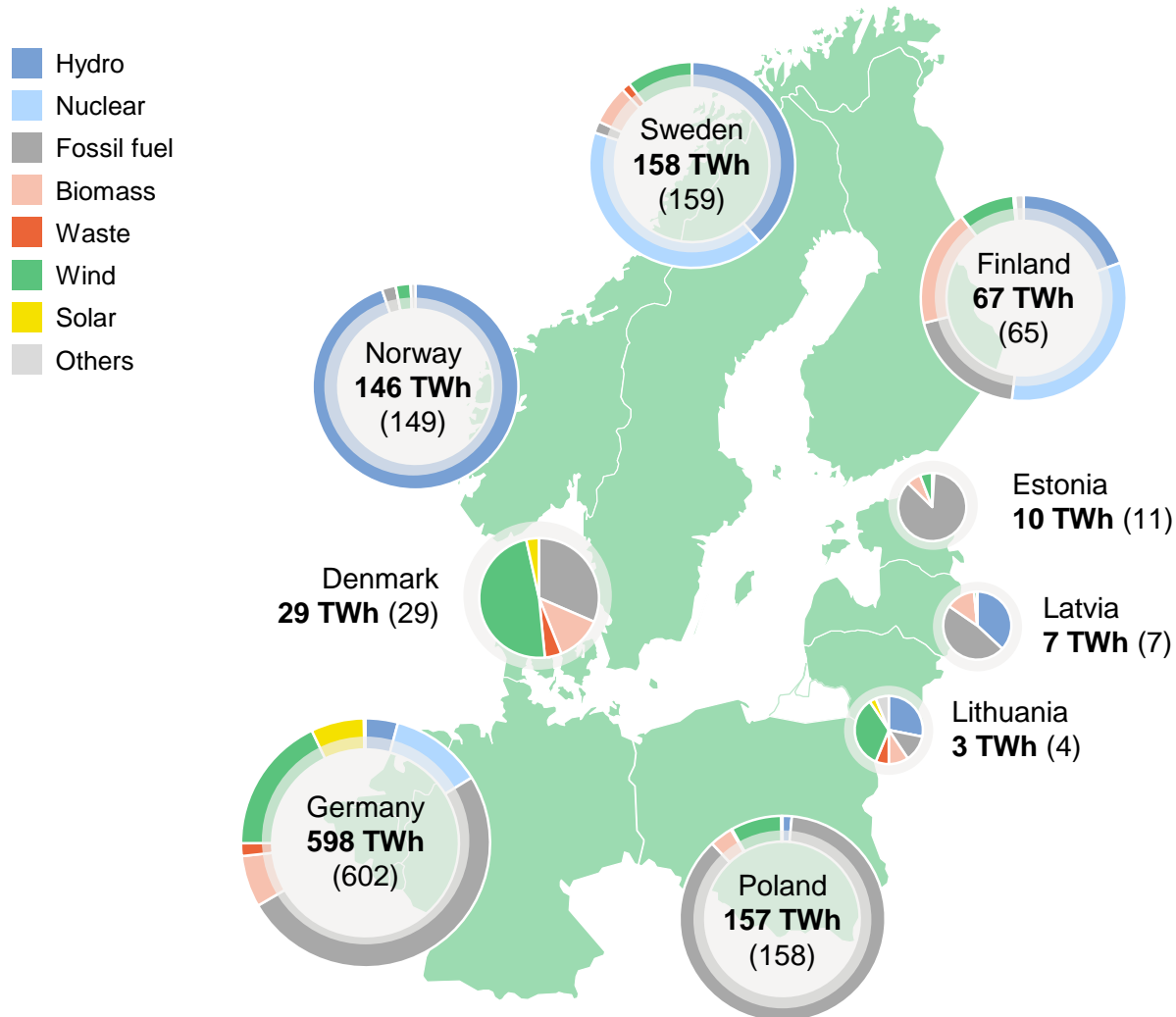
- **Several interconnectors are currently under construction** or decided to be built
- **New interconnections** will increase the Nordic export capacity from the current 6.9 GW to over 13 GW by end of 2023



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



Power Generation in the Baltic Rim in 2018 (2017)

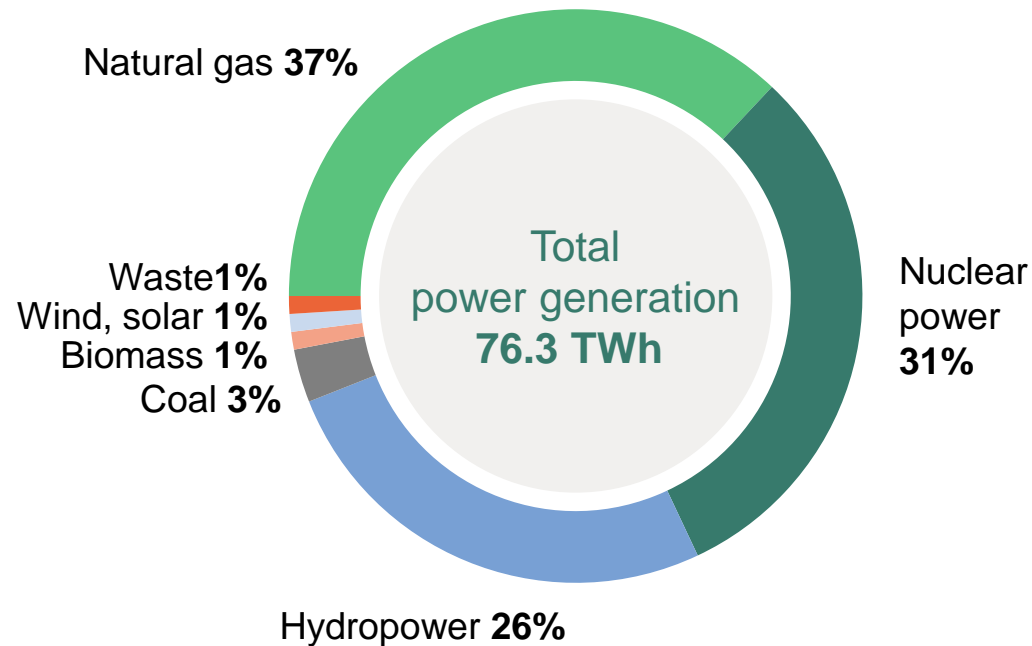


	NORDICS		BALTICS	
2018	TWh	%	TWh	%
Hydro	*212	53	3	17
Nuclear	88	22	-	-
Fossil fuel	28	7	13	62
Biomass	26	6	2	9
Waste	3	1	0	1
Wind	40	10	2	9
Solar	1	0	0	1
Others	2	1	0	1
Total generation	400	100	20	100
	Net export 2 TWh		Net import 9 TWh	

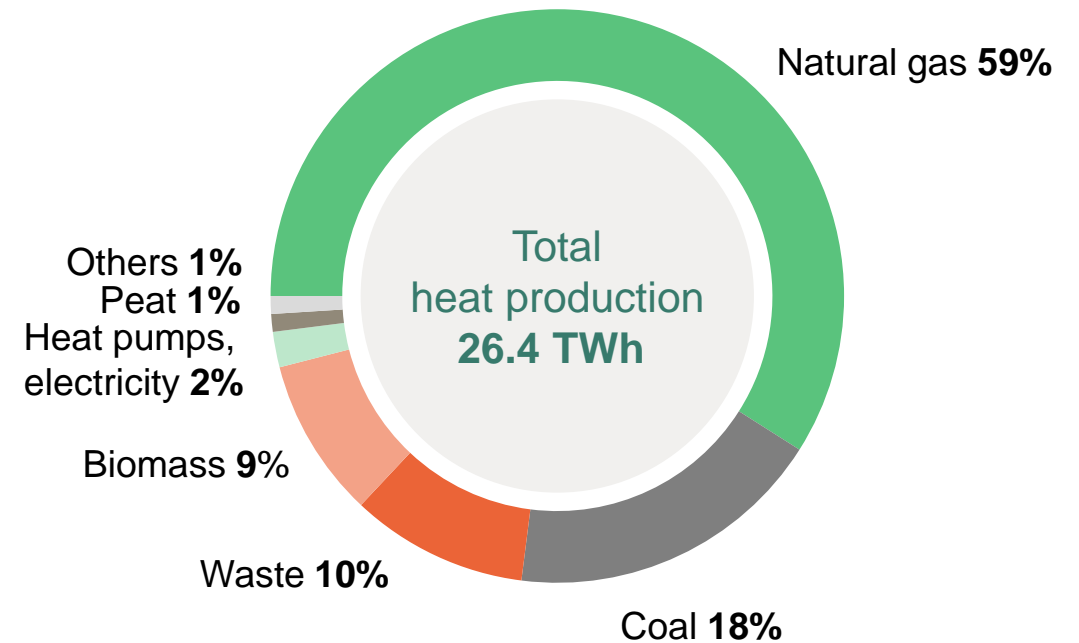
*) Normal annual Nordic hydro generation 200 TWh, variation +/- 40 TWh.

Fortum's power and heat production by source

Fortum's power generation in 2019



Fortum's heat production in 2019

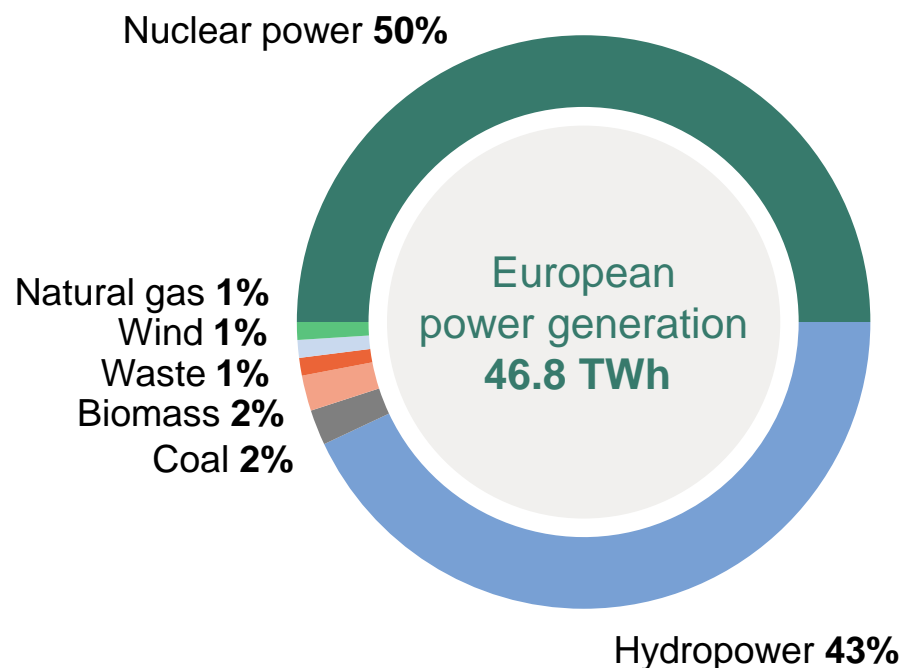


Note: Fortum's power generation capacity 14,230 MW (hydro 4,677, nuclear 2,821, CHP 5,689, condensing 565, wind 194 and solar 285) and heat production capacity 13,249 MW at the end of 2019

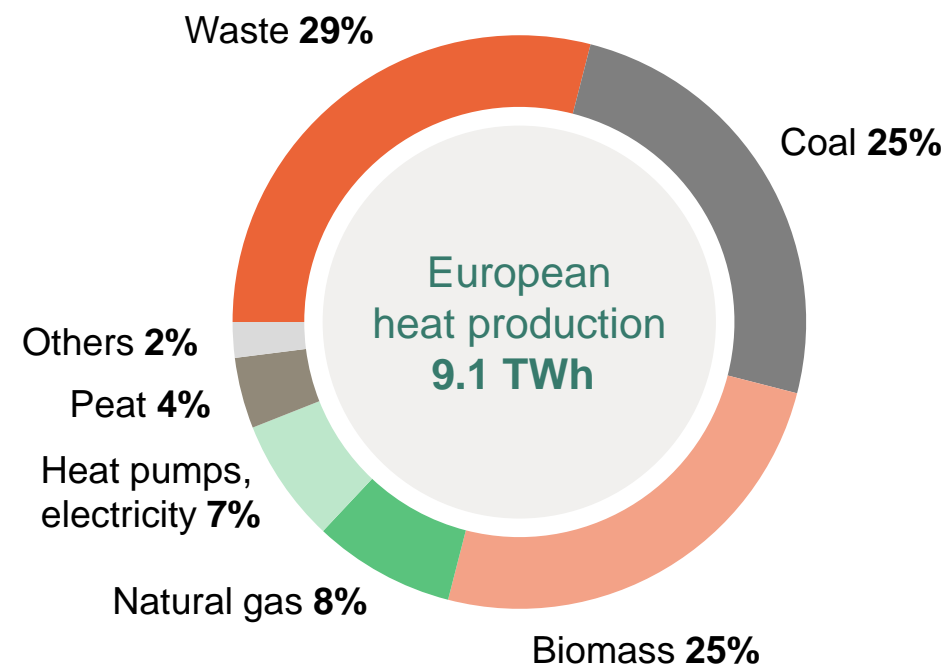


Fortum's European power and heat production by source

Fortum's European power generation in 2019



Fortum's European heat production in 2019



Note: Fortum's European power generation capacity 9,052 MW (hydro 4,677, nuclear 2,821, CHP 831, condensing 565, wind 159) and heat production capacity 4,812 MW at the end of 2019

Fortum's Nordic, Baltic and Polish generation capacity

GENERATION CAPACITY MW

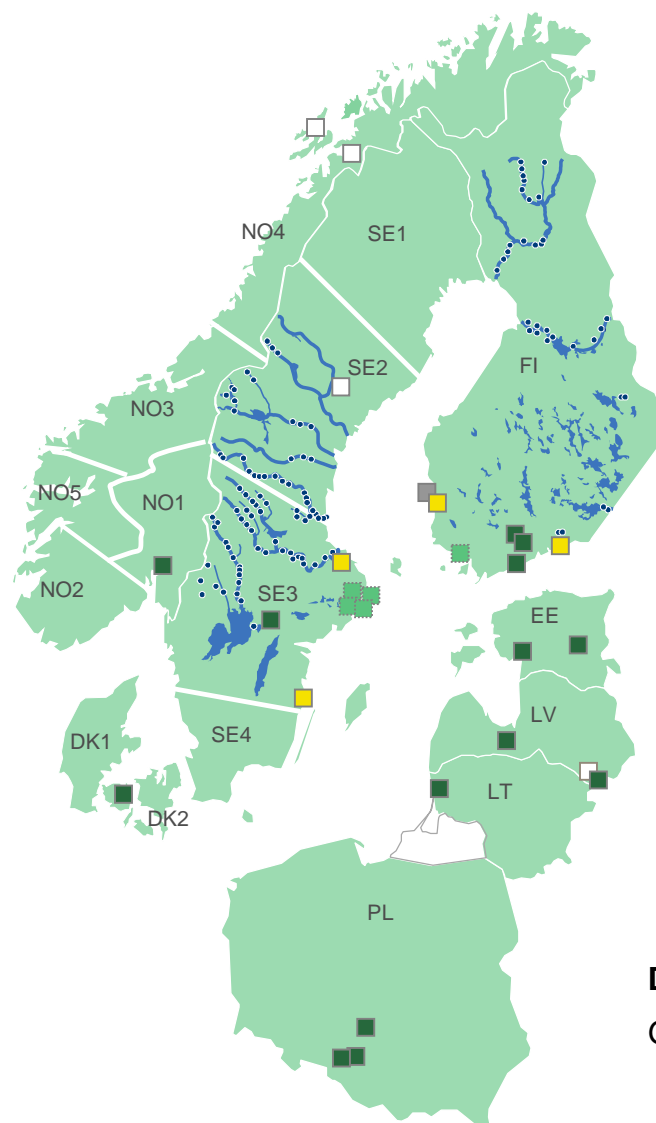
■ Hydro	4,677
■ Nuclear	2,821
■ CHP	831
■ Other thermal	565
□ Wind	159

Nordic, Baltic and Polish
generation capacity **9,053**

Figures 31 December 2019

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

■ Associated companies' plants
(not included in the MWs) Stockholm
Exergi (Former Fortum Värme),
Stockholm; TSE, Naantali



NORWAY MW

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

SWEDEN MW

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

DENMARK, DK1 MW

Generation capacity, CHP	16
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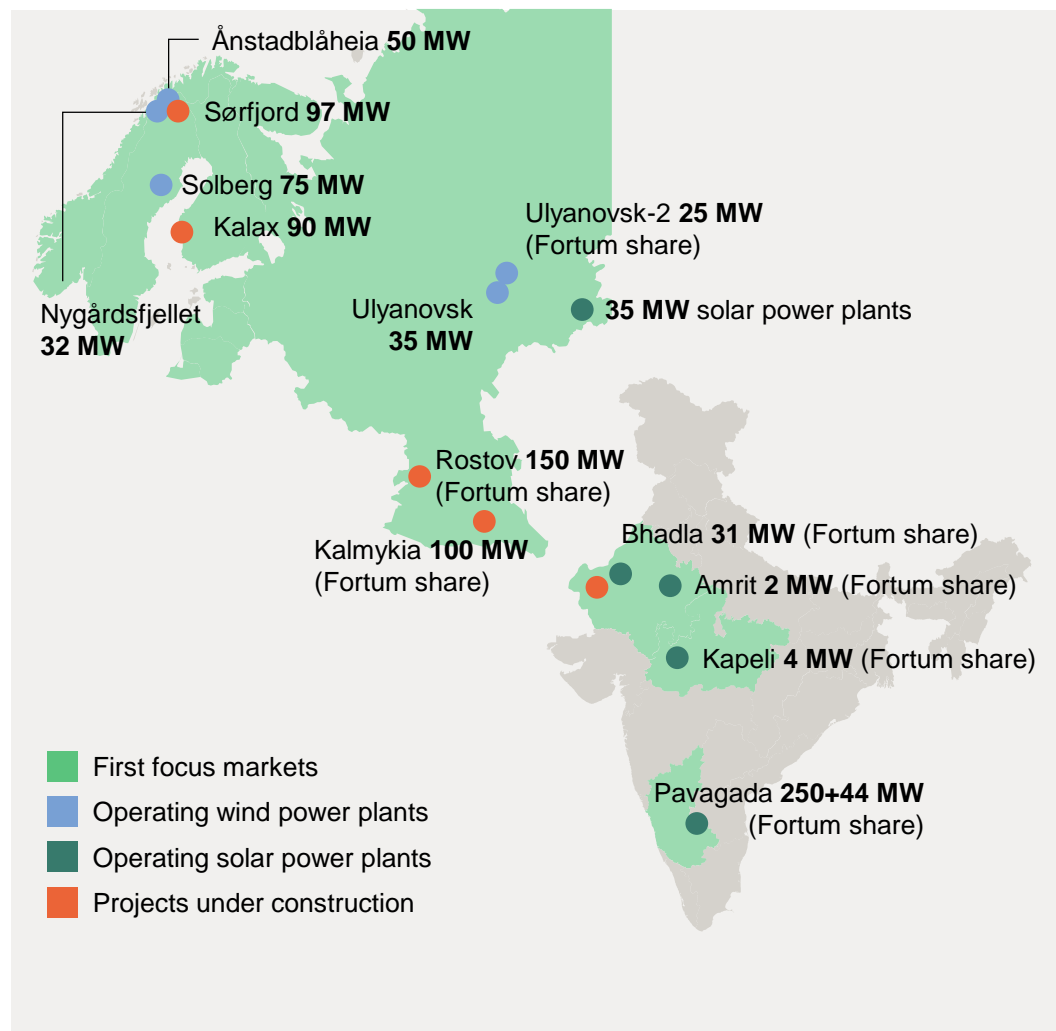
FINLAND MW

Hydro	1,553
Nuclear	1,487
CHP	452
Other thermal	565
Generation capacity	4,057

BALTICS AND POLAND MW





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

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



PORTFOLIO	TECHNOLOGY	STATUS	CAPACITY MW	FORTUM SHARE, MW	SUPPLY STARTS/ STARTED
FINLAND			90	90	
Kalax	Wind	Under construction	90	90	Q1 2021
NORWAY			179	179	
Nygårdsfjellet	Wind	Operational	32	32	2006 and 2011
Ånstadblåheia	Wind	Operational	50	50	2018
Sørfjord	Wind	Under construction	97	97	Q4 2019-Q3 2020
SWEDEN			76	76	
Solberg	Wind	Operational	76	76	2018
RUSSIA			2,009	1,098	
Bugulchansk	Solar	Operational	15	15	2016-2017
Pleshanovsk	Solar	Operational	10	10	2017
Grachevsk	Solar	Operational	10	10	2017
	Solar	Under development	110+6	110+6	2021-2022
Ulyanovsk	Wind	Operational	35	35	2018
Ulyanovsk 2	Wind	Operational	50	25 (50%)	1.1.2019
Rostov	Wind	Under construction	100+200	150 (50%)	H1 2020
Kalmykia	Wind	Under construction	200	100 (50%)	Q4 2020
Rostov	Wind	Under construction	50	25 (50%)	Q4 2020
Rusnano JV	Wind	Under development	1,223	612 (50%)	2018-2023
INDIA			685	581	
Amrit	Solar	Operational	5	2 (44%)	2012
Kapeli	Solar	Operational	10	4 (44%)	2014
Bhadla	Solar	Operational	70	31 (44%)	2017
Pavagada	Solar	Operational	100	44 (44%)	2017
Pavagada 2	Solar	Operational	250	250	Q3 2019
Rajasthan	Solar	Under construction	250	250	Q4 2020
TOTAL			3,039	2,024	
		Under development	1,339	728	
		Under construction	987	712	
		Operational	713	584	

Fortum's nuclear fleet

				
	LOVIISA	OLKILUOTO	OSKARSHAMN	FORSMARK
Commercial operation started	Unit 1: 1977 Unit 2: 1981	Unit 1: 1978 Unit 2: 1980 Unit 3: (Under construction)	Unit 1: 1972* Unit 2: 1974* Unit 3: 1985	Unit 1: 1980 Unit 2: 1981 Unit 3: 1985
Generation Capacity	Unit 1: 507 MW Unit 2: 507 MW Total: 1,014 MW	Unit 1: 890 MW Unit 2: 890 MW (Unit 3: 1,600 MW) Total: 1,780 MW (3,380 MW)	Unit 1: 473 MW* Unit 2: 638 MW* Unit 3: 1,400 MW Total: 1,400 MW	Unit 1: 988 MW Unit 2: 1,118 MW Unit 3: 1,172 MW Total: 3,278 MW
Fortum's share	100% 1,014 MW	27% 473 MW (873 MW)	43% 602 MW	22% 729 MW
Yearly production Fortum's share of production	8 TWh 8 TWh	15 TWh 4 TWh	11 TWh 5 TWh	25 TWh 6 TWh
Majority owner Fortum's share	Fortum	Pohjolan Voima 26.6%	Uniper 43.4%	Vattenfall 22.2%
Operated by	Fortum	Teollisuuden Voima (TVO)	OKG Aktiebolag	Forsmarks Kraftgrupp

*Out of operation; on decommissioning phase

RESPONSIBILITIES

Loviisa: 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

LOAD FACTOR (%)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Oskarshamn 1*	80	51	63	85	68	77	72	1	12	74	60	81	82	0	0
Oskarshamn 2*	90	78	76	86	75	90	77	81	33	0	0	0	0	0	0
Oskarshamn 3	85	95	88	70	17	31	68	69	77	75	79	83	77	87	89
Forsmark 1	85	76	81	88	88	93	79	88	87	94	79	95	88	94	85
Forsmark 2	94	72	85	79	64	38	94	82	89	89	91	75	82	87	86
Forsmark 3	95	92	88	69	86	81	85	93	88	83	58	82	86	81	92
Loviisa 1	95	93	94	86	96	93	94	84	92	92	93	88	93	91	93
Loviisa 2	95	88	96	93	95	89	94	91	93	89	92	93	93	85	91
Olkiluoto 1	98	94	97	94	97	92	95	90	97	94	96	91	93	87	97
Olkiluoto 2	94	97	94	97	95	95	91	96	93	97	89	94	81	94	92

Source: Fortum

*) Out of operation; on decommissioning phase

Finnish units world class in availability

Overview of production and consumption:

www.fortum.com/investors - energy related links



Thermal power generation capacity in Russia on 31 Dec 2019

YEAR	SUPPLY STARTS	POWER PLANT	FUEL TYPE	CCS CAPACITY	CSA CAPACITY	PRODUCTION TYPE	TOTAL CAPACITY
< 2011		Tyumen CHP-2	Gas	755		CHP/Condensing	755
		Chelyabinsk CHP-2	Gas, coal	320		CHP/Condensing	320
		Argayash CHP	Coal	256		CHP/Condensing	256
		Chelyabinsk CHP-1	Gas	134		CHP/Condensing	134
2011	Feb/2011	Tyumen CHP-1	Gas	472	210	CHP/Condensing	682
	Jun/2011	Chelyabinsk CHP-3	Gas	360	233	CHP/Condensing	593
2013	Apr/2013	Nyagan 1 GRES	Gas		453	Condensing	453
	Dec/2013	Nyagan 2 GRES	Gas		453	Condensing	453
2015	Jan/2015	Nyagan 3 GRES	Gas		455	Condensing	455
	Dec/2015	Chelyabinsk 1 GRES	Gas		247	CHP/Condensing	247
2016	Mar/2016	Chelyabinsk 2 GRES	Gas		248	CHP/Condensing	248
2017	Nov/2017	Chelyabinsk 3 GRES	Gas	263		CHP/CCGT	263
				2,560 MW	2,298 MW		4,858 MW

Day ahead wholesale market prices in Russia

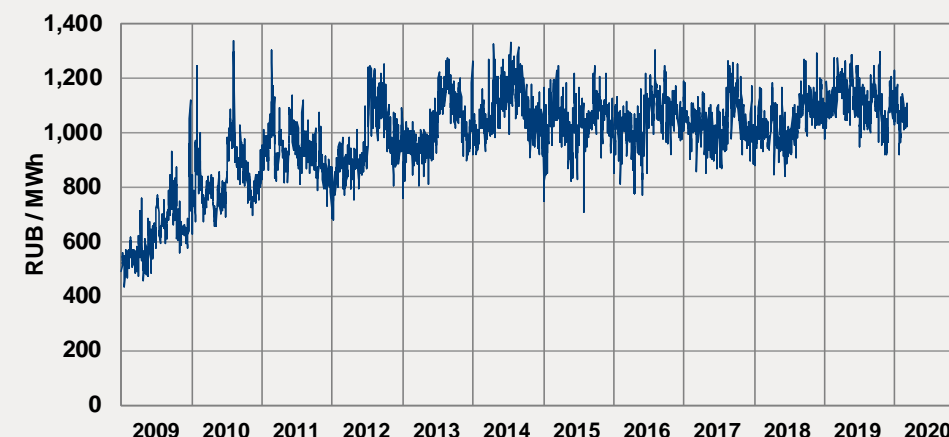
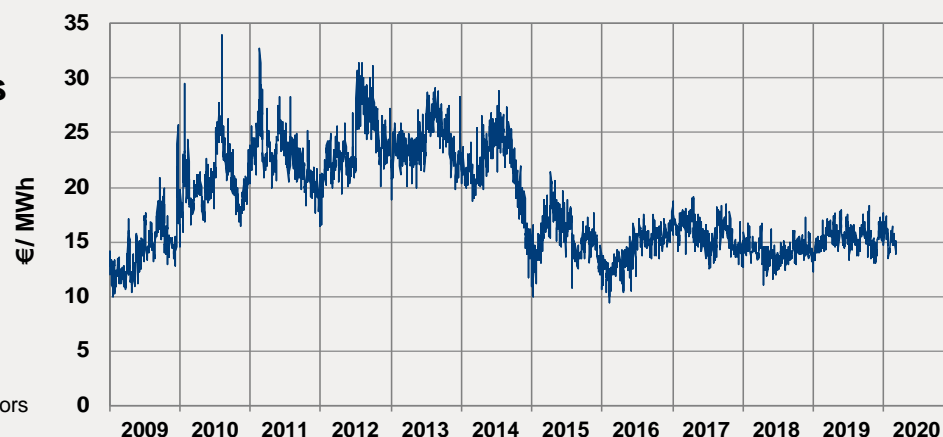
Key electricity, capacity and gas prices in the PAO Fortum area

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

Day ahead power market prices for Urals

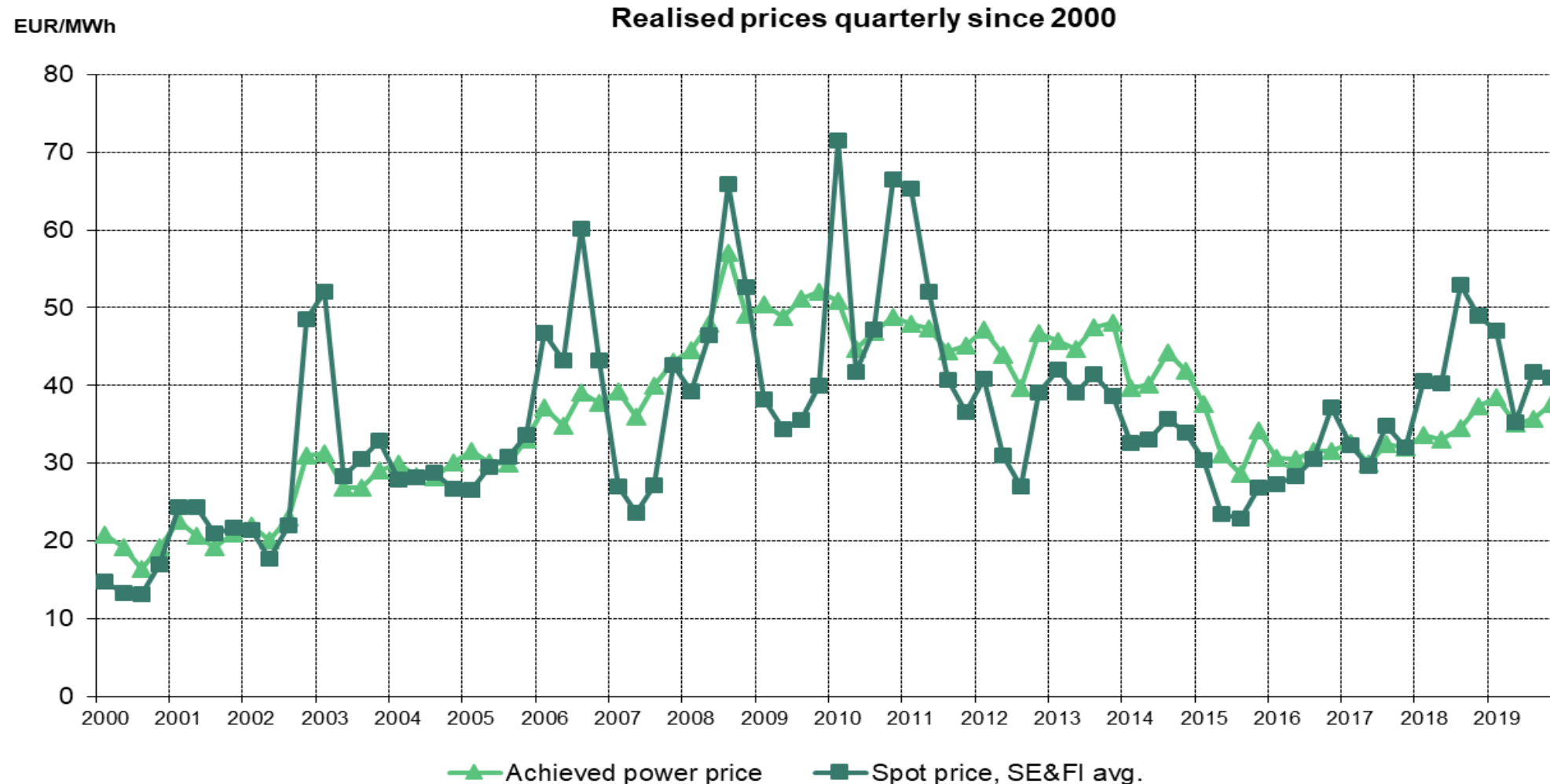
Source: ATS

In addition to the power price generators receive a capacity payment.



Hedging improves stability and predictability

– principles based on risk mitigation



Capital returns: 2019 EUR 1.10 per share ~ EUR 1 billion

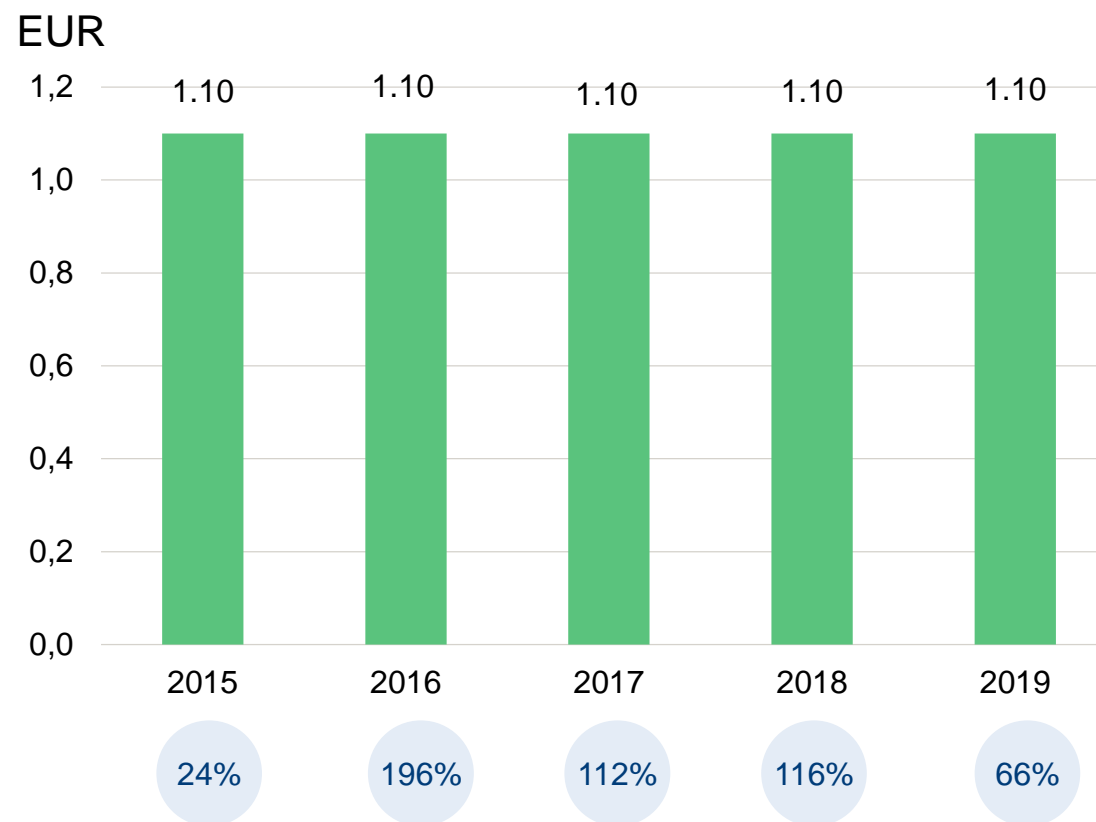
Fortum's target is to pay a stable, sustainable, and over time increasing dividend of 50-80% of earnings per share excluding one-off items

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

Five year history of dividend per share



Next events:

The AGM 2020 on 17 March 2020

The ex-dividend date 18 March 2020

The CMD planned for 3 December 2020

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