Vattenfall 9M and Q3 Results 2020

27 October 2020

Magnus Hall, CEO
Anna Borg, CFO

VATTENFALL

Vattenfall 9M Results 2020

Opening remarks

- Positive development in a turbulent market - unusually high hydrological balance pushing down Nordic electricity prices

- Progress for fossil-free solutions with inaugurations of Princess Ariane wind farm and HYBRIT pilot plant for steel production. Bid for closure of Moorburg coal-fired plant
- CFO Anna Borg announced as new CEO, with effect from 1 November

- Underlying EBIT increased by SEK 0.9 bn to SEK 17.8 bn:
  - Nordic hedges resulting average achieved electricity price of 31 EUR/MWh vs. spot price of 8.9 EUR/MWh
  - Lower electricity production from nuclear and coal-fired generation
  - Strong contribution from sales and trading

- Profit for the period decreased to SEK 2.0 bn, mainly as a result of impairments in the operating segments Heat (Moorburg SEK 9.0 bn) and Wind (Swedish and Danish onshore assets, SEK 1.5 bn) in the second quarter

Post Q3

- Offer to sell electricity distribution company Stromnetz Berlin to the State of Berlin

Vattenfall 9M Results 2020

Overview

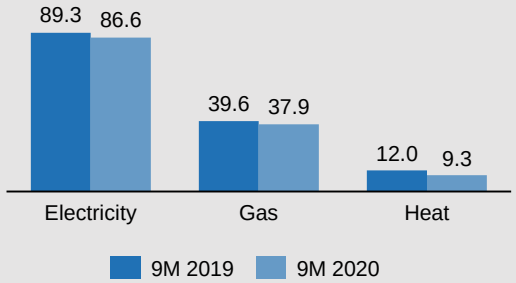
Result development

SEK bn	9M 2020	9M 2019	Δ
Net Sales	114.8	120.2	-4%
EBITDA	34.4	33.6	+2%
Underlying operating profit (EBIT)	17.8	16.9	5%
EBIT	10.0	19.7	-49%
Profit for the period	2.0	14.4	-86%

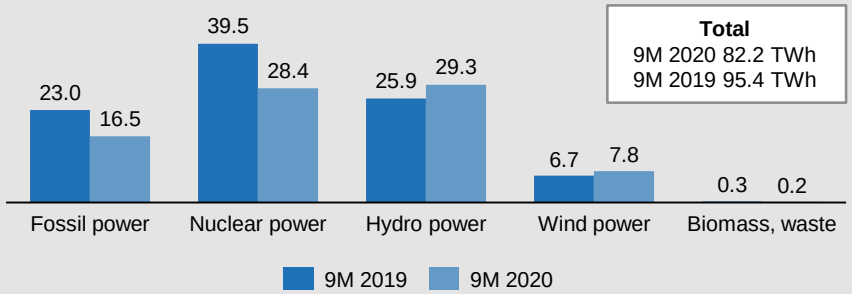
Financial targets

	9M 2020	9M 2019
Return on capital employed[1] (≥8%)	4.7	9.2
FFO/adjusted net debt[1] (22-27%)	27.9	24.5

Customer sales (TWh)



Electricity production (TWh)



[1] Last 12-month values

Customers & Solutions

Positive development in the Continental business

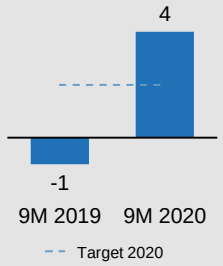
Highlights

SEK million	9M 2020	9M 2019
Net Sales	62,367	64,086
Underlying operating profit	1,759	594

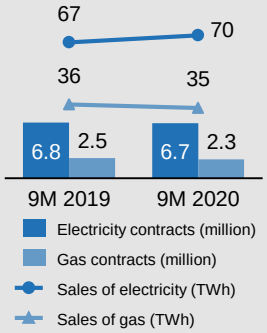
- Decrease in net sales following lower prices and volumes in the Nordics and the Netherlands due to somewhat lower demand
- Underlying operating profit increased, mainly driven by strong contribution from sales in Germany and lower depreciation in the Netherlands
- Significant increase in NPS mainly due to improvements in Sweden and Germany
- New deals within e-vehicle charging solutions in Germany, the Netherlands and Norway
- Slight decrease in customer contracts following iSupply divestment

Key data

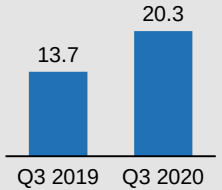
Net Promoter Score[1] (NPS) relative to peers

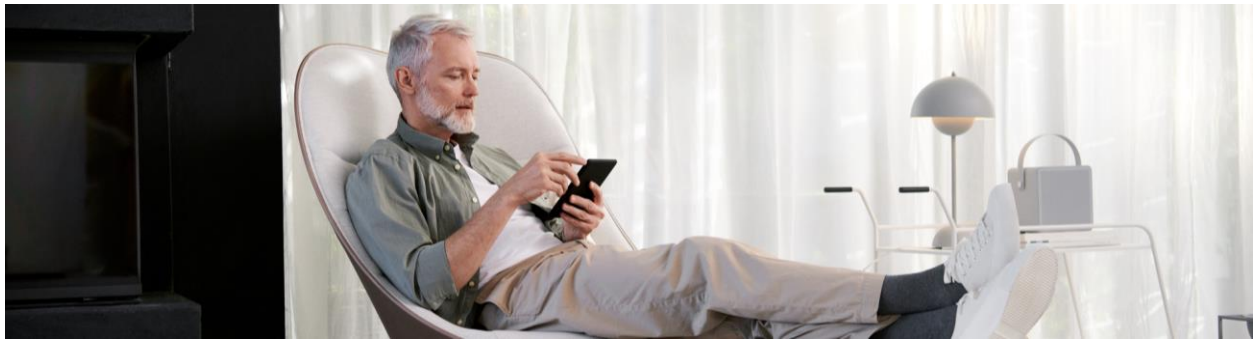


Retail sales development



Charging points for electric vehicles (thousand)





[1] The target is a positive NPS in absolute terms and +2 compared to Vattenfall's peer competitors to be achieved by 2020.

Power Generation

Unusually high hydrological balance putting pressure on Nordic electricity prices

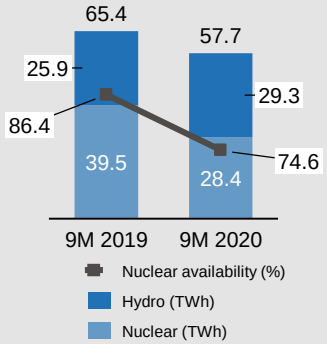
Highlights

SEK million	9M 2020	9M 2019
Net Sales	65,307	74,699
Underlying operating profit	10,729	11,252

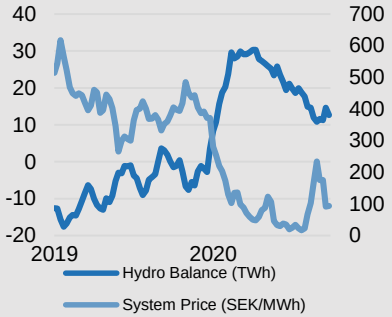
- Net sales and underlying operating profit decreased mainly due to lower achieved prices in the Nordics as well as lower nuclear production. A higher realised trading result partly compensating for this development
- Decreased production mainly due to closure of Ringhals 2 and prolonged annual outages and downregulation in nuclear power following low price environment. Also contributing to a significant drop in availability
- Agreement with Bosch on supply of renewable electricity from a solar park in Germany

Key data

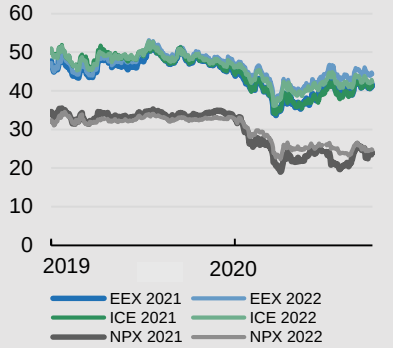
Production and availability



Nordic hydro balance and system price



Electricity futures prices (EUR/MWh)



A more flexible nuclear generation in 2020 and beyond

Proven capabilities of coping with volatile market conditions and rapidly changing demand

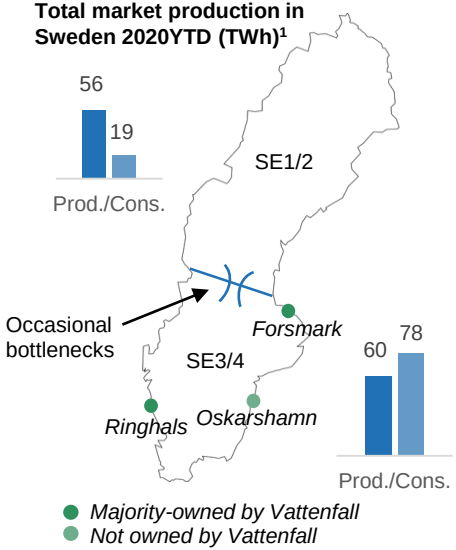
Flexible nuclear generation in 2020

- Swedish nuclear produced 11TWh less in 2020YTD vs. 2019 due to closure of Ringhals 2, more maintenance, as well as for commercial reasons in the low-price environment (3 TWh down-regulation in 2020)
- Deal with Swedish TSO Svenska Kraftnät for earlier restart of Ringhals 1 during summer
- Separate agreements signed to enable down-regulation during periods of high frequency in the electricity grid

A strategically vital role in the current and future energy system in Sweden

Nuclear power and a strong transmission capacity is key to meet demand and grid stability

Total market production in Sweden 2020YTD (TWh)[1]



Nuclear power is cost competitive in a merchant price-based market and an enabler of a fossil-free future

Higher Value Factor

- Higher peak prices and lower running hours for nuclear in a system with more renewables
- Flexible response to market prices

System Control Services

- Voltage Control
- Inertia
- Short circuit capability

Power 2 X (P2X)

- Well-equipped to support CO_2-free production of alternative fuels such as hydrogen, ammoniac and jet-fuel

[1] Source: Noordpool

Wind

Important steps for continued growth in renewables

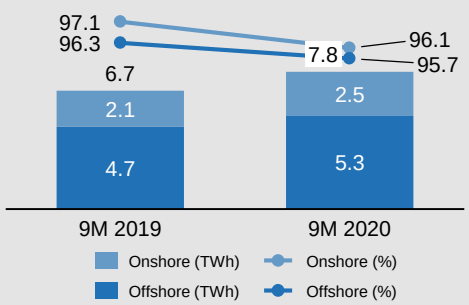
Highlights

SEK million	9M 2020	9M 2019
Net Sales	9,606	9,502
Underlying operating profit	2,255	2,474

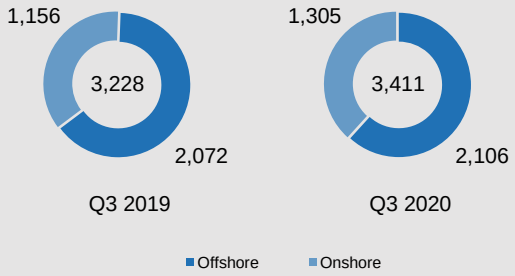
- Net sales increased as a result of additional capacity[1]. Largely countered by lower electricity prices and lower availability during maintenance work in offshore wind
- The underlying operating profit decreased due to higher depreciation and higher costs due to new capacity and project development
- Inauguration of the Princess Ariane onshore wind farm (301 MW), the largest of its kind in the Netherlands. Future electricity generation corresponding to an annual consumption of 370 000 Dutch households
- Installation of foundations for the Kriegers Flak offshore wind farm (605 MW) in Denmark completed

Key data

Production and availability[2]



Installed wind capacity (MW)



[1] New capacity mainly from Horns Rev 3 (407 MW), Denmark
[2] Revenue based availability

Heat

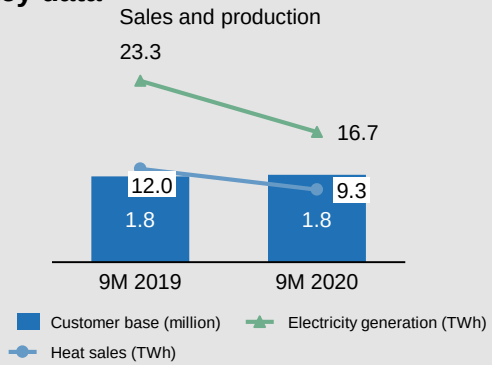
Bid submitted for closure of coal-fired power production

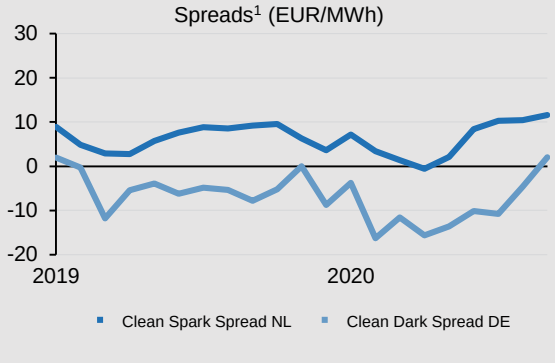
Highlights

SEK million	9M 2020	9M 2019
Net Sales	16,049	23,245
Underlying operating profit	192	318

- Net sales and underlying operating profit decreased primarily due to sale of district heating operations in Hamburg and the closure of Hemweg 8 (impact net sales SEK 3.4 bn, underlying operating profit SEK 0.4 bn). Unfavourable clean dark spreads and clean spark spreads also contributed negatively
- In Q3, clean spark spreads improved which together with lower depreciation contributed to a higher underlying operating profit
- Tender submitted for the closure of the coal-fired Moorburg plant in Germany's first auction for the phase-out of coal. Results to be announced 1 December at the latest
- Joint venture formed with Eurofiber in Berlin to provide fibre connectivity for more than 500,000 households and businesses

Key data





[1] CSS NL with 52% efficiency, CDS DE with 38% efficiency

Distribution

Offer to sell the electricity grid in Berlin to the state of Berlin

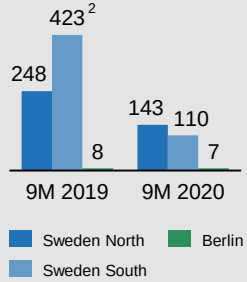
Highlights

SEK million	9M 2020	9M 2019
Net Sales	15,662	16,604
Underlying operating profit	3,870	3,454

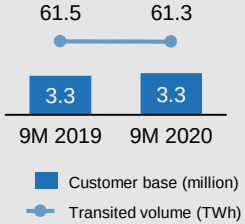
- Net sales decreased due to lower distributed volumes in the Swedish local networks and a lower contribution from Germany
- Underlying operating profit increased as a result of lower operating expenses, which were elevated significantly in 2019 by the major Storm Alfrida (~ SEK 800 million)
- Offer to sell all shares in the electricity distribution company Stromnetz Berlin GmbH to the State of Berlin
- Large investment projects to meet demand for connections and electrification. Investments increased by 20% compared to the same period last year

Key data

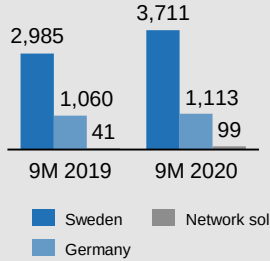
Service level (SAIDI, min)[1]



Customers and volumes



Investments (SEK million)



[1] All outages longer than 1 second in medium and low voltage networks are included City network in Berlin results in lower SAIDI. Vattenfall's Swedish network covers both urban areas and large rural areas.

[2] SAIDI in 2019 for Sweden South was driven by the storm "Alfrida"

Strategic Targets 2025

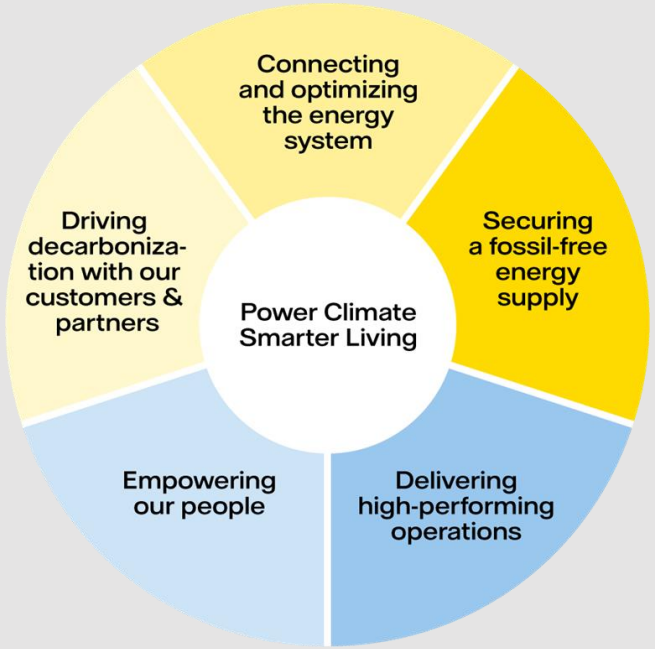
Anna Borg, CFO and incoming CEO

A strategy based on an “integrated utility logic”

To enable our goal of fossil-free living within one generation

We believe being active in the whole value chain is strategically important:

- **It increases our competitive advantage in eg. wind auctions, by enabling stable revenues through Corporate PPAs with our customers**
- **Access to renewable volumes on the customer side differentiates us from competitors as fossil-free electricity becomes more scarce**
- **The ability to optimise dispatch across both customer loads and supply brings optimal value of a total portfolio**
- **Diversifying and reducing total portfolio risk means lower cost of capital and an ability to take on more debt**



Strategic targets 2025

Strategic focus area	Strategic targets to 2020	2025 Target	Actual 2019	Motivation
Driving decarbonisation with our customers & partners	Net Promoter Score[1] (Absolute)	18	2	Established and recognised as key to assess customer behaviours/attitudes
Securing a fossil-free energy supply	CO_2 Emissions Intensity	≤86 gCO_2/kWh[2]	126 gCO_2/kWh[3]	Established in Science Based Targets. Industry standard
Empowering our people	LTIF	≤1.0	2.1	Safety first, best practise KPI
	Engagement Index	75	69	Engaged employees is a key factor for success
Delivering high-performing operations	FFO/Adjusted Net Debt	22-27 %	26.5%	Key metric in financial steering
	ROCE	8 %	8.5 %	Key metric in financial steering

[1] NPS absolute target is calculated with a weighting of 80% from Customers & Solutions and 20% from Heat resembling size of customer basis
[2] Targeting 86 gCO_2/kWh by 2025 puts us on a "1.5°C" trajectory by 2030 according to Science Based Target levels
[3] Excluding the heat operations in Hamburg, which were sold in September 2019

Financials

Anna Borg, CFO and incoming CEO

Vattenfall 9M Results 2020

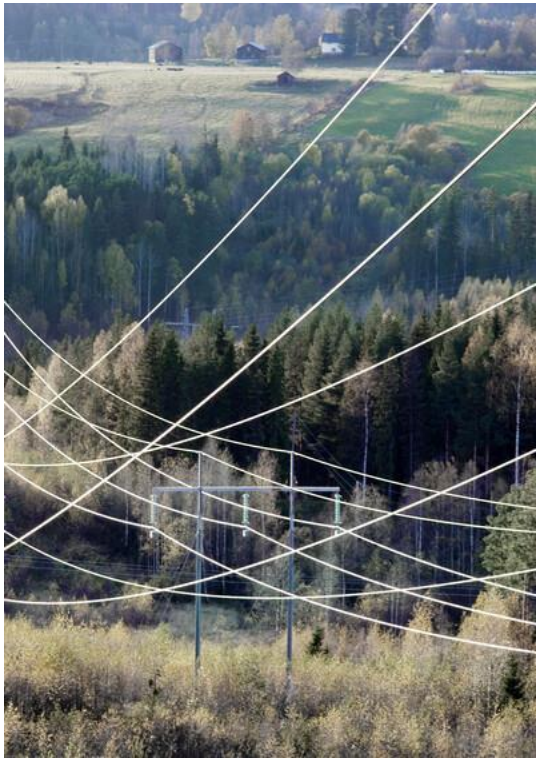
Financial highlights

Key data

SEK bn	9M 2020	9M 2019
Net Sales	114.8	120.2
EBITDA	34.4	33.6
Underlying operating profit (EBIT)	17.8	16.9
EBIT	10.0	19.7
Profit for the period	2.0	14.4
Funds from Operations (FFO)	23.7	23.4
Cash flow operating activities	26.8	11.7
Net debt	58.9	59.6
Adjusted net debt	126.3	125.4
Adjusted net debt/EBITDA[1] (times)	2.9	3.0
Financial targets		
ROCE[1] (≥8%)	4.7	9.2
FFO/adjusted net debt[1] (22-27%)	27.9	24.5

Key developments

- Net sales decreased by SEK 5.4 bn to SEK 114.8 bn due to lower spot prices and lower volumes in the Nordics, the Netherlands and Germany as well as lower income from the heat operations
- Underlying EBIT increased by SEK 0.9 bn mainly due strong sales in Germany, lower depreciation in the Netherlands for Customers & Solutions, lower costs in Distribution (following Storm Alfrida in 2019) and higher realised trading result. Partly offset by lower achieved prices and lower nuclear power production
- Profit for the period decreased to SEK 2.0 bn, mainly as a result of write-downs in the operating segments Heat (SEK 9.0 bn) and Wind (SEK 1.5 bn)
- ROCE was 4.7% mainly due to impairments
- FFO/Adjusted net debt increased to 27.9%, mainly as a result of higher FFO due to higher EBITDA. Main drivers were positive effects from hedging activities and positive development in Customers & Solutions



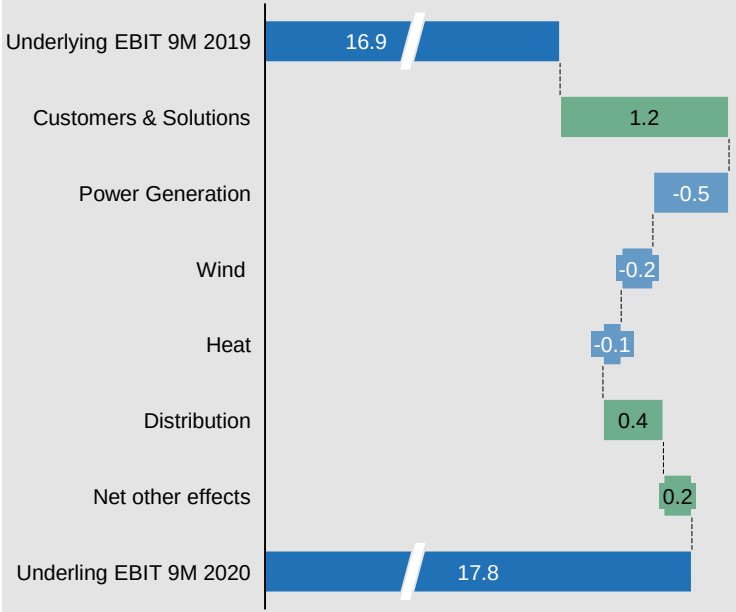
[1] Last 12-month values

Development of underlying EBIT 9M 2020

Increase from C&S and Distribution offset by lower earnings in Power Generation and Wind

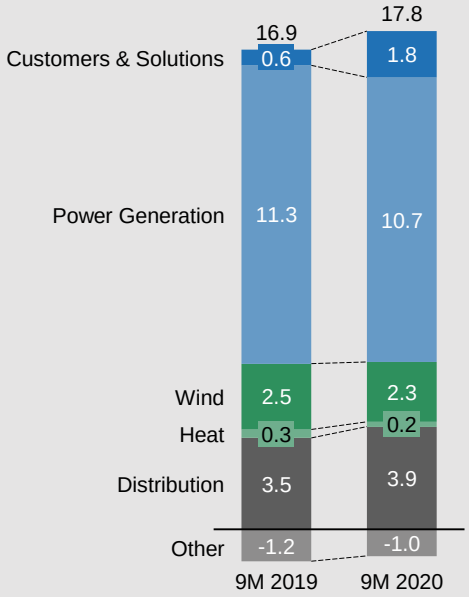
Change in 9M 2020 vs. 9M 2019

SEK bn



Breakdown per operating segment

SEK bn

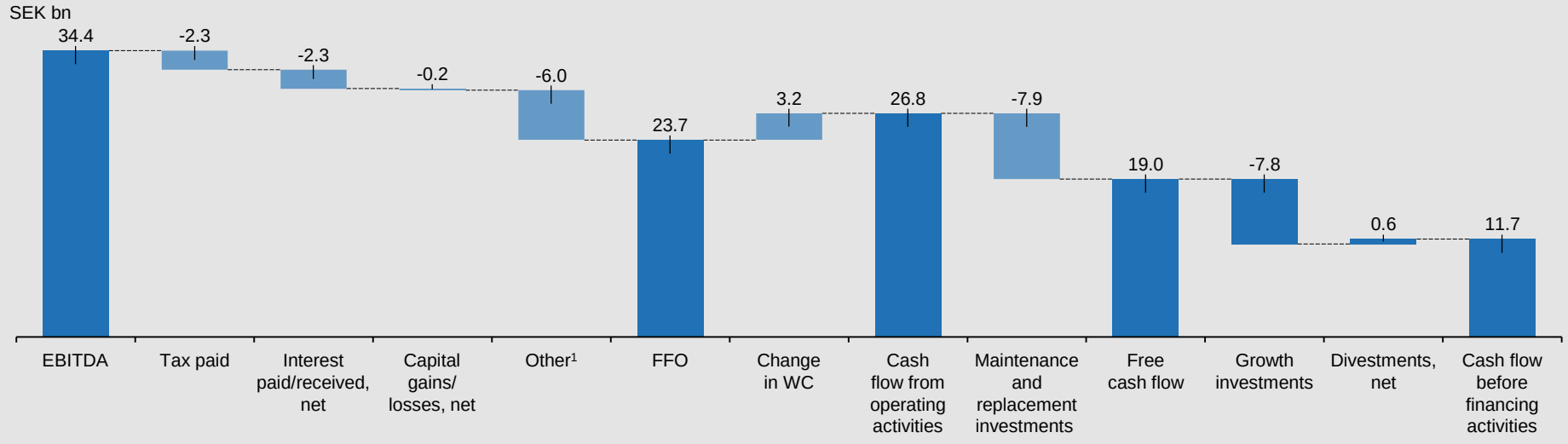


Highlights

- Customers & Solutions: strong contribution from sales in Germany. Lower depreciation in the Netherlands
- Power Generation: lower achieved prices and lower nuclear generation, partly countered by higher realised earnings from trading
- Wind: additional capacity (Horns Rev 3) countered by higher depreciation and higher costs due to new capacity and project development
- Heat: effects from sale of district heating operations in Hamburg and the closure of Hemweg 8. Unfavorable clean dark and clean spark spreads also contributed to lower electricity production.
- Distribution: lower operating costs following the Storm Alfrida in Q1 2019

Cash flow development 9M 2020

Positive working capital development mainly related to seasonality effects and changes in margin calls



Main effects

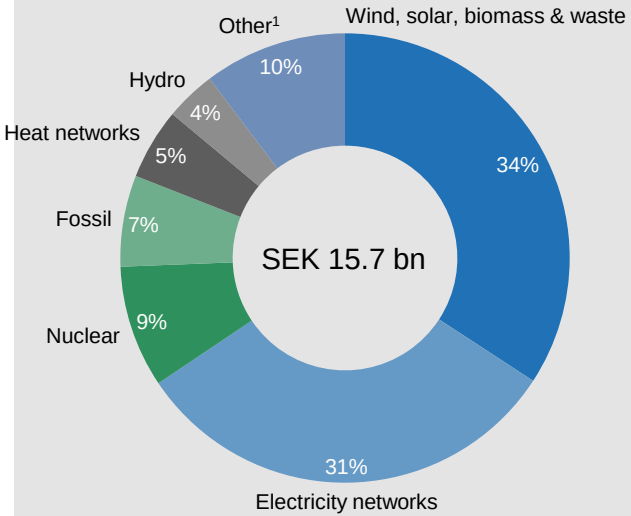
- Change in working capital mainly driven by changes related to seasonality in net change in operating receivables and liabilities in the Customers & Solutions and Heat operating segments (SEK 3.5 bn), net change in margin calls for commodity hedging activities (SEK 3.4 bn) and decreased inventory (SEK 1.6 bn). Changes related to CO_2 emission allowances had an offsetting impact (SEK -4.2 bn).
- Growth investments mainly related to wind power

1 ”Other” includes non-cash items included in EBITDA, mainly changes in fair value of commodity derivatives

Capital expenditures

Majority of investments directed to networks and renewables

Investments per category, 9M 2020



Detailed overview of investments, 9M & Q3 2020

SEK bn	9M 2020	9M 2019	Δ	Q3 2020	Q3 2019	Δ
Hydro	0.6	0.6	1%	0.2	0.2	-2%
Nuclear	1.4	1.6	-15%	0.4	0.4	-20%
Fossil	1.0	1.7	-39%	0.2	0.6	-66%
Wind, solar, biomass & waste	5.4	5.6	-5%	2.9	1.5	95%
Electricity networks	4.9	4.1	19%	1.6	1.5	5%
Heat networks	0.8	0.9	-9%	0.3	0.4	-29%
Other[1]	1.6	1.9	-17%	0.6	0.2	150%
Total	**15.7**	**16.5**	**-5%**	**6.1**	**4.9**	**26%**

[1] Investments mainly related to Carpe Futurum

Overview of key figures 9M and Q3 2020

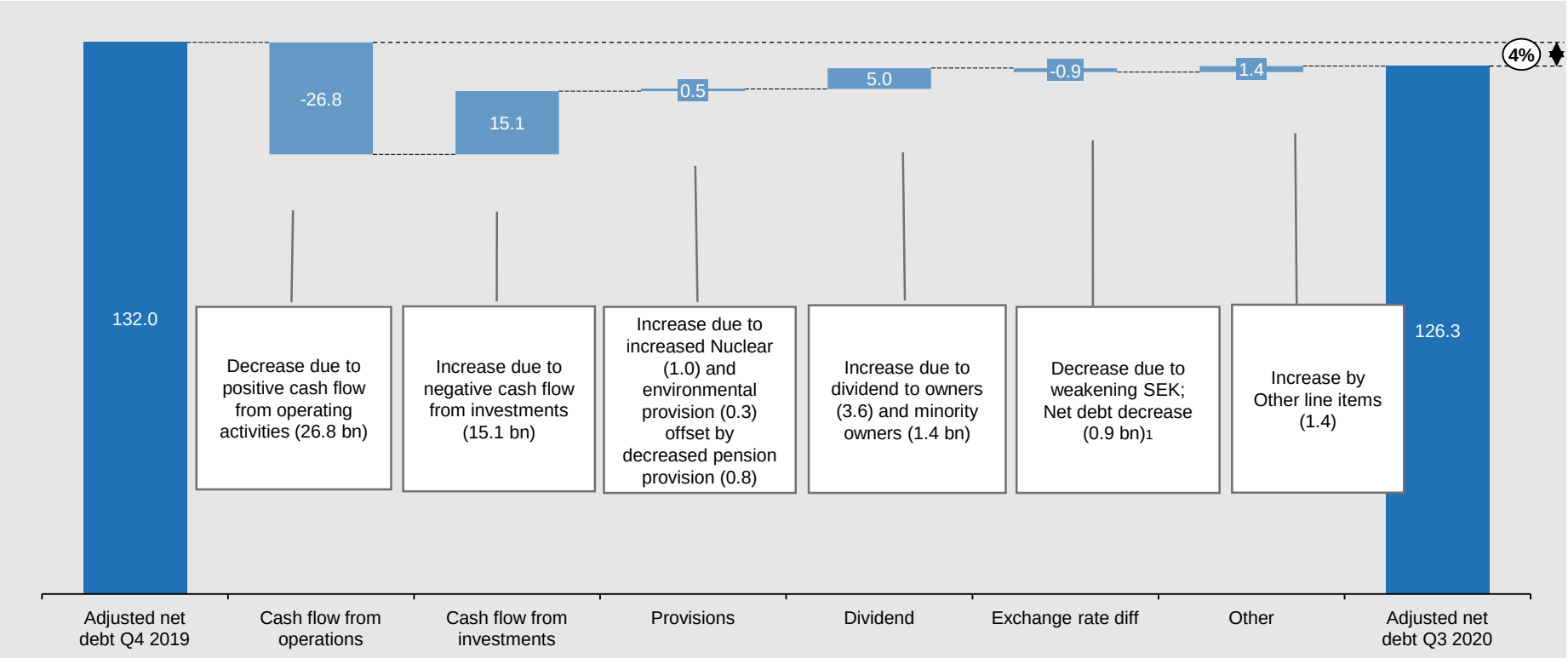
Amounts in SEK bn unless indicated otherwise	9M 2020	9M 2019	Q3 2020	Q3 2019
Net sales	114.8	120.2	35.4	35.9
EBITDA	34.4	33.6	9.2	13.5
EBIT	10.0	19.7	4.7	8.7
Underlying operating profit (EBIT)	17.8	16.9	4.8	3.6
Profit for the period	2.0	14.4	3.6	6.7
Electricity generation (TWh)	82.2	95.4	25.0	28.7
Sales of electricity (TWh)	120.1	126.5	37.9	38.7
- of which, customer sales (TWh)	86.6	89.3	26.9	27.1
Sales of heat (TWh)	9.3	12.0	1.4	1.7
Sales of gas (TWh)	37.9	39.6	5.9	6.3
Return on capital employed[1] (≥8%)	4.7	9.2	4.7	9.2
FFO/adjusted net debt[1] (22-27%)	27.9	24.5	27.9	24.5

[1] Last 12-month values

Appendix

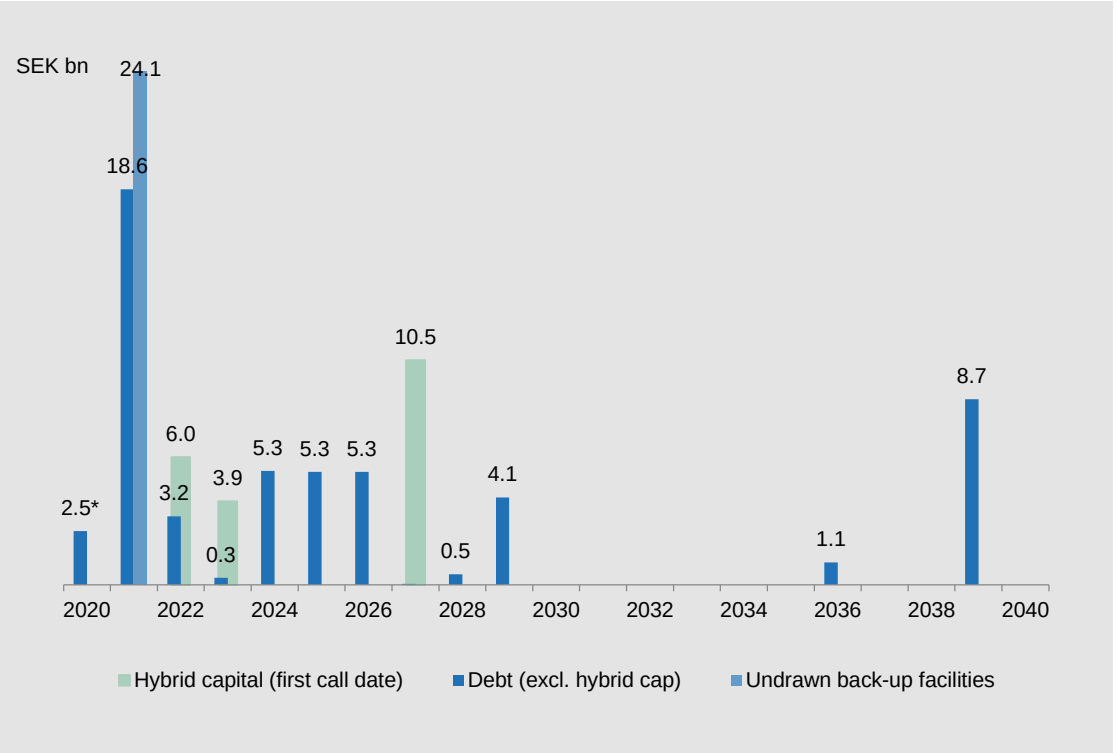
Development of adjusted net debt YTD 2020

Adjusted net debt decrease mainly due to positive cashflow after investments and positive translation effects.



[1] SEK weakened against EUR (from 10.45 to 10.57); translation of EUR denominated net debt into SEK leads to decrease in Adjusted net debt

Debt maturity profile[1]



	30 Sep. 2020	31 Dec. 2019
Duration (years)	4.0	4.7
Average time to maturity (years)	5.2	6.8
Average interest rate (%)	3.3	4.0
Net debt (SEK bn)	58.9	64.3
Available group liquidity (MSEK)	44.9	29.3
Undrawn committed credit facilities (MSEK)	24.1	21.4

Cumulative maturities excl. undrawn back-up facilities

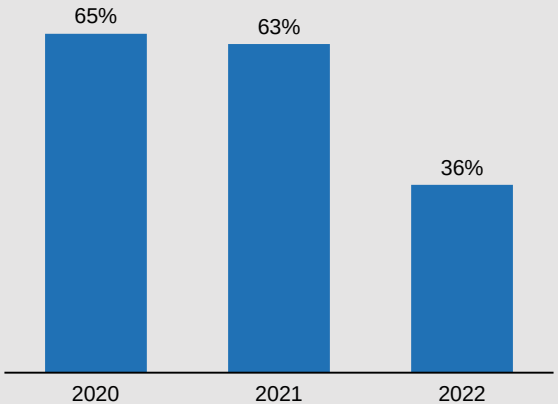
	2020-2022	2023-2025	From 2026
Debt incl. hybrid capital	30.3	14.9	30.3
% of total	*40%*	*20%*	*40%*

* Short term debt are excluded (Repo, ECP and SCP) (11.5) [1] Commercial paper (ECP) Loans from associated companies, minority owners, margin calls received (CSA) and valuation at fair value are excluded and currency derivatives for hedging debt in foreign currency are included

Price hedging

Vattenfall continuously hedges its future electricity generation through sales in the forward and futures markets. Spot prices therefore have only a limited impact on Vattenfall's earnings in the near term

Estimated Nordic[1] hedge ratio (%) and indicative prices



Average indicative Nordic hedge prices in EUR/MWh

2020	2021	2022
33	29	30

Achieved prices[2] - Nordic portfolio

YTD 2020	YTD 2019	Q3 2020	Q3 2019	FY 2019	LTM
31	32	38	29	32	31

Sensitivity analysis – Continental[3] portfolio

Market quoted	+/- 10% price impact on future profit before tax, MSEK[4]			
	2021	2022	2023	Observed yearly volatility
Electricity	+/- 22	+/- 457	+/- 1,124	18% - 25%
Coal	-/+ 133	-/+ 71	-/+ 3	16% - 19%
Gas	-/+ 79	-/+ 309	-/+ 681	18% - 25%
CO_2	-/+ 84	-/+ 64	-/+ 269	47% - 49%

[1] Nordic: SE, DK, FI
[2] Achieved prices from the spot market and hedges. Includes Nordic (SE, DK, FI) hydro, nuclear and wind power generation
[3] Continental: DE, NL, UK.
[4] The denotation +/- entails that a higher price affects operating profit favorably, and -/+ vice versa

Liquidity position

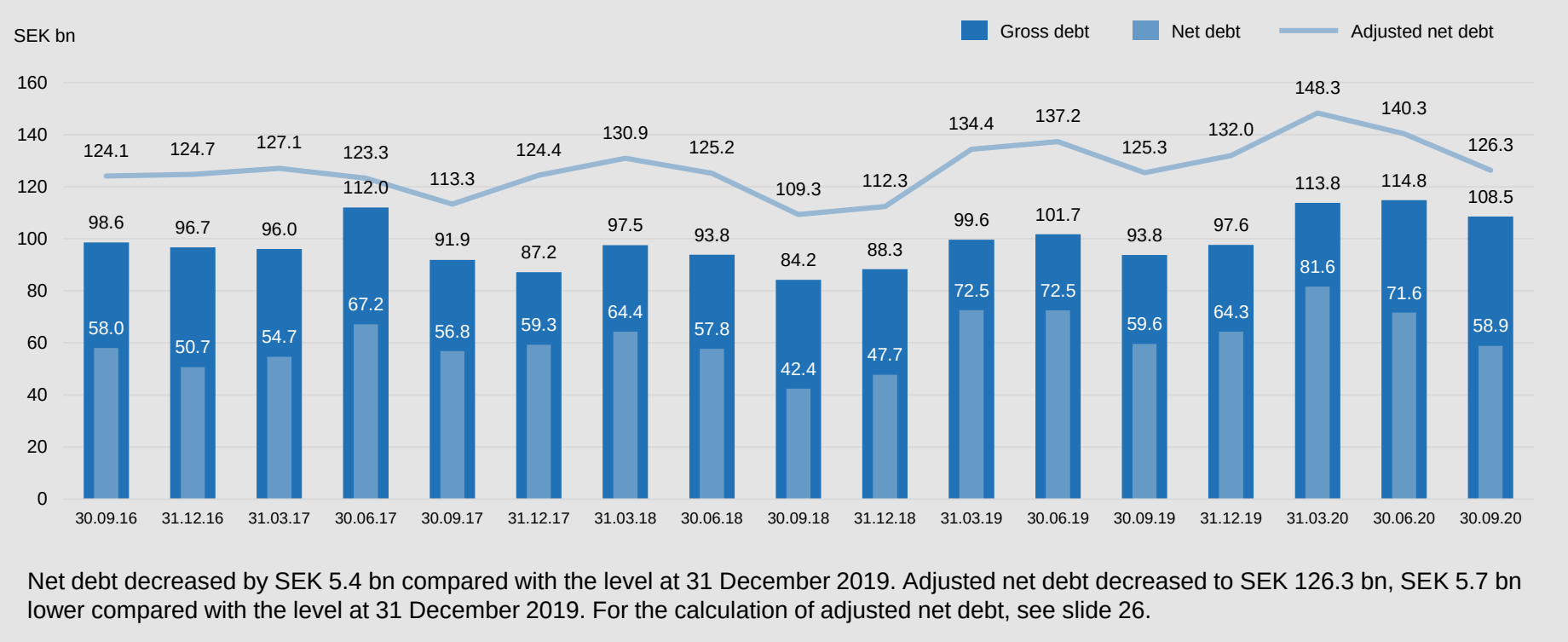
Group liquidity	SEK bn
Cash and cash equivalents	20.2
Short term investments	29.1
Reported cash, cash equivalents & short term investments	**49.2**
Unavailable liquidity[1]	-4.4
Available liquidity	**44.9**

Committed credit facilities	Facility size, EUR bn	SEK bn
RCF (maturity Dec 2021)	2.0	21.1
RCF (maturity Oct 2021)		3.0
Total undrawn		24.1

Debt maturities[2]	SEK bn
Within 90 days	2.5
Within 180 days	14.9

[1] German nuclear ”Solidarvereinbarung” 1.0 SEK bn, Margin calls paid (CSA) 2.4 SEK bn, Insurance “Provisions for claims outstanding” 0.8 SEK bn
[2] Excluding loans from minority owners and associated companies

Debt development

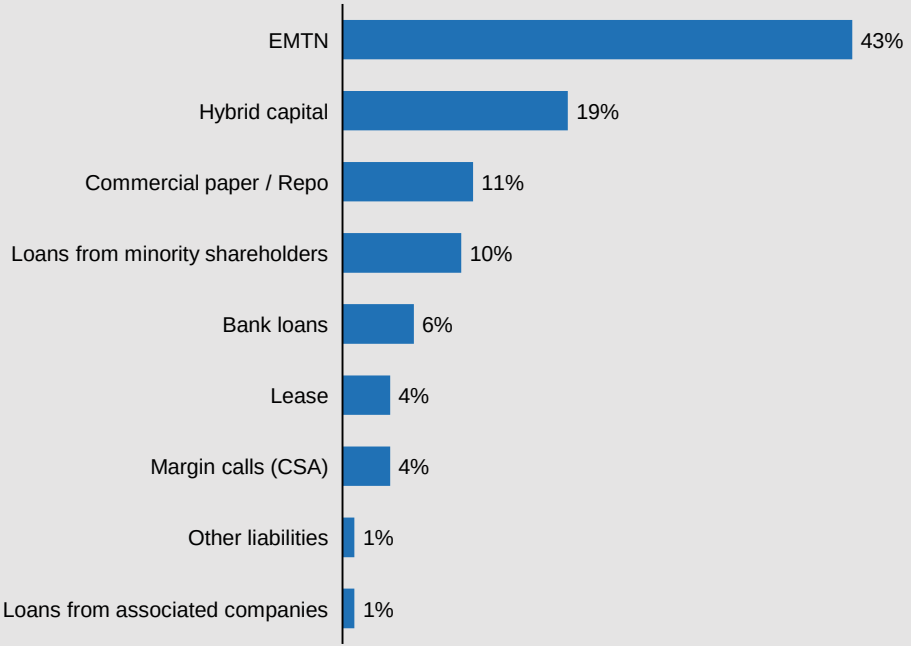


Net debt decreased by SEK 5.4 bn compared with the level at 31 December 2019. Adjusted net debt decreased to SEK 126.3 bn, SEK 5.7 bn lower compared with the level at 31 December 2019. For the calculation of adjusted net debt, see slide 26.

Breakdown of gross debt

Total debt: SEK 108.5 bn (EUR 10.3 bn)

External market debt: SEK 96.4 bn (EUR 9.1 bn)



Debt issuing programmes	Size (EUR bn)	Utilization (EUR bn)
EUR 10bn Euro MTN	10.0	4.1
EUR 4bn Euro CP	4.0	1.2
Total	14.0	5.3

- All public debt is issued by Vattenfall AB
- The main part of debt portfolio has no currency exposure that has an impact on the income statement. Debt in foreign currency is either swapped to SEK or booked as hedge against net foreign investments.
- No structural subordination

[1] EMTN= Euro Medium Term Notes

Reported and adjusted net debt

Reported net debt (SEK bn)	30 Sep. 2020	31 Dec. 2019
Hybrid capital	-20.2	-20.2
Bond issues and liabilities to credit institutions	-52.8	-38.8
Commercial papers and Repos	-12.3	-17.2
Liabilities to associated companies	-1,0	-0,7
Liabilities to minority shareholders	-11.1	-10.6
Lease liabilities	-4.9	-4.6
Other liabilities	-6.2	-5.2
Total interest-bearing liabilities	**-114.8**	**-97.6**
Reported cash, cash equivalents & short-term investments	49.2	33.2
Loans to minority owners of foreign subsidiaries	0.5	0.2
Net debt	**-58.9**	**-64.3**

Adjusted net debt (SEK bn)	30 Sep. 2020	31 Dec. 2019
Total interest-bearing liabilities	-108.5	-97.6
50% of Hybrid capital	10.1	10.1
Present value of pension obligations	-43.2	-44.0
Wind & other environmental provisions	-8.9	-8.6
Provisions for nuclear power (net)	-36.5	-35.5
Margin calls received	4.8	3.7
Liabilities to minority owners due to consortium agreements	11.1	10.6
= Adjusted gross debt	**-171.2**	**-161.3**
Reported cash, cash equivalents & short-term investments	49.2	33.2
Unavailable liquidity	-4.4	-3.9
= Adjusted cash, cash equivalents & short-term investments	**44.9**	**29.3**
= Adjusted net debt	**-126.3**	**-132.0**

Nuclear provisions

Reactor	Net capacity (MW)	Start (year)	Vattenfall share (%)	Vattenfall provisions, SEK bn (IFRS accounting)	Vattenfall provisions, SEK bn (pro rata)	Sw nuclear waste fund SEK bn (Vattenfall pro rata share)
Ringhals 1	879	1976	70.4			
Ringhals 2	809	1975	70.4			
Ringhals 3	1,070	1981	70.4			
Ringhals 4	942	1983	70.4	**Total Ringhals: 35.5**	**Total Ringhals: 35.5[1]**	
Forsmark 1	984	1980	66.0			
Forsmark 2	1,120	1981	66.0			
Forsmark 3	1,170	1985	66.0	**Total Forsmark: 31.3**	**Total Forsmark: 20.7**	
Total Sweden	**6,974**	**-**		**69.6[2]**	**57.9[2]**	**40.3[3]**
Brunsbüttel	771	1977	66.7	11.9	7.9	
Brokdorf	1,410	1986	20.0	0	3.6	
Krümmel	1,346	1984	50.0	7.6	7.6	
Stade[4]	640	1972	33.3	0	0.9	
Total Germany	**4,167**	**-**	**-**	**19.4**	**19.9**	
Total SE & DE	**11,141**			**89.1**	**77.8**	

[1] Vattenfall is 100% liability of Ringhals decommissioning, while owning only 70.4%
[2] Total provisions in Sweden (IFRS accounting) include provisions of SEK 0.5 bn (pro rata SEK 0.3 bn considering share in Studsviksfonden) related to Ägesta, and SEK 2.3 bn (pro rata SEK 1.0 bn considering share in Studsviksfonden) related to SVAFO
[3] Vattenfall's share of the Nuclear Waste Fund. IFRS consolidated value is SEK 47.3 bn.
[4] Stade is being dismantled

Impairment history 2009 – 2020

SEK bn		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
The Netherlands	Thermal assets		4.3[1]	0.4[2]	8.6[2]	14.7	2.6		2.8			0.7		34.1
	Trading					6.5[1]	10.0[1]		0.7					17.2
	Other	1.2	1.2			1.5[2]	1.9				0.1	0.2		6.1
Germany	Thermal assets			0.3		4.3	5.7	19.2	26.1			0.1	9.0	64.8
	Nuclear assets			10.5										10.5
	Transmission		5.1											5.1
	Other					0.1	1.1	0.3	2.3	0.4			1.2	5.4
The Nordic Countries	Renewable assets						1.4		0.1			0.2	1.5	3.2
	Thermal assets	4.1				3.0		0.1						7.2
	Nuclear assets							17.0	0.4					17.4
	Other								0.3					0.3
UK	Renewable assets						1.1	0.2				0.1		1.4
	Other											0.1		0.1
Not allocated		0.2	0.5	0.1										0.8
Impairment Liberia					1.3									1.3
Impairments; shares in Enea S.A. Poland					2.4									2.4
Impairments; shares in Brokdorf and Stade									1.1					1.1
Impairments		**5.5**	**11.1**	**11.3**	**12.3**	**30.1**	**23.8**	**36.8**	**33.8**	**0.4**	**0.1**	**1.5**	**11.7**	**178.4**
Reversed impairment losses		-1.3	-1.3	-0.4	0.0	0.0	0.0	-0.5	-0.9	0.0	0.0	0.0	0.0	-4.4
Impairments (net)		**4.2**	**9.8**	**10.9**	**12.3**	**30.1**	**23.8**	**36.3**	**32.9**	**0.4**	**0.1**	**1.5**	**11.7**	**174.0**

[1] Impairment of goodwill
[2] Impairment of assets and goodwill

Wind & Solar - Installed capacity (MW[1]) Q3 2020

	Solar	Onshore	Offshore	Total
United Kingdom	5	391	687	1,083
Denmark	0	237	565	802
The Netherlands	30	423	108	562
Sweden	0	234	110	345
Germany	3	19	636	658
Total (MW)	**38**	**1,305**	**2,106**	**3,449**

United Kingdom – ROC scheme	
Thanet	300
Ormonde (51%)	150
Aberdeen	97
Kentish Flats	90
Kentish Flats Extension	50
Pen Y Cymoedd	228
Ray	54
Edinbane	41
Clashindarroch	37
Swinford	22
Parc Cynog	4
PV@Cynog	5
Pendine	5
Installed capacity (MW)	**1,083**

Sweden – certificate scheme	
Lillgrund	110
Stor-Rotliden	78
Högabjär-Kärsås (50%)	38
Höge Väg (50%)	37
Hjuleberg (50%)	36
Juktan (50%)	29
Östra Herrestad	16
Installed capacity (MW)	**345**

Denmark – FIT scheme	
Horns Rev 1 (60%)	158
Horns Rev 3	407
Klim (98%)	67
Nørrekær Enge 1 (99%)	30
Rejsby Hede	23
Hagesholm	23
Nørre Økse Sø	17
Tjæreborg Enge	17
Hollandsbjerg	17
Bajlum (89%)	15
DræbyFed	9
Ryå	8
Ejsing (97%)	7
Lyngmose	5
Installed capacity (MW)	**802**

Germany – EEG scheme	
DanTysk (51%)	288
Sandbank (51%)	288
alpha ventus (26%)	60
Jänschwalde	12
Westküste (20%)	7
Decentral Solar installations	3
Installed capacity (MW)	**658**

The Netherlands – MEP/SDE(+)	
NoordzeeWind (50%)	108
Princess Ariane	184
Princess Alexia	122
Slufterdam	29
Eemmeerdijk	17
Irene Vorrink	17
Hoofdplaatpolder (70%)	10
Reyndersweg (50%)	9
Echteld	8
Coevorden	7
De Bjirmen	6
Oom Kees (12%)	6
Oudendijk	5
Mariapolder	5
Hiddum Houw	4
Eemshaven	6
Velsen	2
Enkhuizen	2
Hemweg	2
Decentral Solar installations	13
Installed capacity (MW)	**562**

[1] Capacity in operation: total capacity of the wind farms that Vattenfall has an ownership in.
Minority shares included as 100%

Main renewables projects in our 5 core countries

Country	Name	Capacity (MW)	Support scheme	Awarded	Duration of support	Owner-ship (%)	Com-missioning	Current status
DK	Kriegers Flak	605	FIT	X	50.000hrs	100	2021	Offshore construction works started
NL	Hollandse Kust Zuid 1-4	1,520	-	X	-	100	2023	Onshore works ongoing
NL	Princess Ariane	301	SDE+	X	15 yrs	100	2020	Commissioning ongoing
NL	Moerdijk	27	SDE+	X	15 yrs	100	2020	Commissioning ongoing
NL	Haringvliet	22	SDE+	X	15 yrs	100	2020	Commissioning ongoing
NL	Nieuwe Hemweg	19	SDE+	X	15 yrs	100	2021	Under construction
UK	South Kyle	240	-	N/A	-	100	2023	Construction started
NL	Jaap Rodenburg	30	SDE+	X	15 yrs	100	2021	Under construction
NL	A16	20	SDE+	X	15 yrs	100	2022	Construction started
SE	Blakliden + Fäbodberget	353	Certs	N/A	-	30	2022	Under construction
NL	Haringvliet	38	SDE+	X	15 yrs	100	2020	Commissioning ongoing
NL	Haringvliet	12	FCR*			100	2020	Commissioning ongoing
In construction		**3,187**						
UK	Norfolk projects	3,600	CfD		15 yrs	100	2027-2029	Vanguard positive consent achieved 1st July; Boreas DCO Examination extended until Oct-20
DK	Vesterhav	344	FIT	X	50.000hrs	100	2023/2024	Geotechnical Site Investigation Offshore finalized, tests ongoing
SE	Grönhult	67	Certs	N/A	-	100	2023	In development
NL	Windplan Blauw	57	SDE+	X	15 yrs	100	2023	In development
NL	Ny Hiddum Houw	14	SDE+	X	15 yrs	100	2021	Preparing for FID
DE	Kögel cluster	28	EEG	(X)		100	2021	Conditional FID
In development (in mature stage)		**> 4 GW**						

Offshore
Onshore
Solar
Batteries

** FCR - Frequency Response Regulation*