

Statistics report

Monthly OECD Electricity Statistics

Next release: 15 January 2020

Data up to September 2020

iea

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MONTHLY ELECTRICITY STATISTICS

September 2020

HIGHLIGHTS

OECD

- In September 2020, total net electricity production in the OECD was 841.0 TWh, down by 3.2% compared to September 2019 and down by 10.4% compared to August 2020. In the first three quarters of 2020, total electricity production was 7,731.5 TWh, down by 3.3% compared to the same period in 2019.
- Renewable electricity production was 244.0 TWh in September 2020, up by 7.2% compared to September 2019 and down 5.7% compared to August 2020. During the first three quarters of 2020, renewables accounted for 31.4% of total electricity produced, with levels increasing up by 7.4% compared to the same period in 2019. Wind power was the main driver of this increase with a total output of 657.9 TWh, up by 67.1 TWh compared to the first three quarters of 2019.
- Non-renewable production was 597.0 TWh in September 2020, down by 6.9% compared to September 2019 and 12.2% compared to August 2020. In the first three quarters of 2020, non-renewable electricity production decreased by 7.5% compared to the same period last year. Lower coal production was the main reason for this decrease. Coal power output was 1,470.5 TWh, down by 307.3 TWh or 17.5%.

OECD Americas

- In OECD Americas, total electricity production was 422.2 TWh, 6.0% lower than in September 2019. Renewable production was 102.2 TWh in September 2020, up by 5.2% compared to September 2019. In the first three quarters of 2020, renewables produced 1,040.9 TWh of electricity, up by 4.3% compared to the same period in 2019. Non-renewable production on the other hand, decreased by 5.4% in the first three quarters of 2020 mainly due to coal production which, at 671.0 TWh, was down by 22.7% compared to the same period in 2019. In September 2020, coal production was 78.5 TWh, down by 20.5% compared to September 2019.
- In Chile, non-hydro renewables produced 12.1 TWh of electricity in the first three quarters of 2020, up by 10.5% compared to the same period in 2019. Wind production was 3.7 TWh in this period, up by 13.7% compared to the first three quarters of 2019 and solar production was 4.9 TWh, up by 16.9%. Solar production increased consistently in 2020 compared to 2019, highlighting the fast growth of the sector in Chile.
- In the United States, net electricity production in September 2020 was 338.2 TWh, 7.1% lower than in September 2019. This decrease was driven by coal, with a production of 71.7 TWh, 20.2% lower than in September 2019. In the first three quarters of 2020, coal power output was 601.8 TWh, 23.4% lower than during the same period in 2019. Coal power production has been decreasing systematically in 2020 compared to 2019. This is largely due to air emission standards and the cost-competitiveness of coal compared to other fuels.

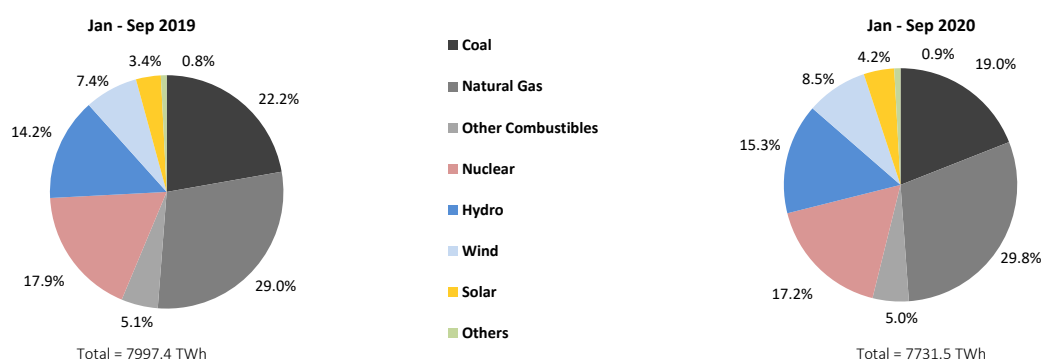
OECD Asia/Oceania

- In OECD Asia/Oceania, net power production was 149.0 TWh, down by 0.7% compared to September 2019 and down by 12.2% compared to August 2020. Renewable production was 30.8 TWh, up by 17.2% compared to September 2019 and down by 4.5% compared to August 2020. In the first three quarters of 2020, renewables produced 261.6 TWh of electricity, up by 12.3% compared to the same period last year. This increase was driven by solar production, which increased by 18.0% or 14.1 TWh in the first three quarters of 2020 compared to the same period in 2019.
- In New Zealand, provisional statistics show that hydro production has decreased by 1.6 TWh or 8.7% in the first three quarters of 2020 compared to the same period in 2019. This decrease in production is mainly due to ongoing dryer than average conditions, with continuous days of drought in the first half of 2020, which caused lower reservoir levels.

OECD Europe

- In September 2020, total electricity production in OECD Europe was 269.7 TWh, equivalent to September 2019 production. Renewables produced 111.0 TWh of electricity, up by 6.4% compared to September 2019. In September, solar production increased by 18.0% compared to September 2019, and was 16.5 TWh. In the first three quarters of 2020, solar production was 147.8 TWh, up by 17.2% compared to the same period in 2019, highlighting the fast expansion of the solar power sector in OECD Europe.
- Total production in France was 33.0 TWh in September 2020, 14.1% lower than in September 2019. Since the first implementation of confinement measures, net production decreased substantially because of lower nuclear power production. Nuclear power production was 21.7 TWh in September 2020, 21.0% lower than in September 2019. In the first three quarters of 2020, nuclear production decreased by 16.3%. This decrease can be explained by the adjustment of the maintenance outage plan to optimise output capacity throughout the year. As a result of historically low nuclear production net exports decreased significantly. In September 2020, France was a net importer of electricity for the first time since November 2017, and exports declined by 55.7% compared to September 2019, down to 2.7 TWh.
- In the Netherlands, net production in the third quarter of 2020 was 30.8 TWh, 14.6% higher than in the third quarter of 2019. This increase in production was due to higher natural gas production. In the third quarter of 2020, natural gas power output was 19.1 TWh, 9.1% higher than in the third quarter of 2019. Net electricity outputs reached seasonal maxima in the third quarter of 2020. As a result, electricity exports increased by 57.8% in the third quarter and the Netherlands became net electricity exporter, breaking with seasonal trends.

OECD Electricity Production by Fuel Type Year-to-Date Comparison



OECD Total

	Sep 2020				Year-to-Date			2019	
	TWh	change ¹	change ²	share	2020	2019	change ³	TWh	share
CONVENTIONAL THERMAL	481.7	-5.9%	-13.6%	57.3%	4 164.4	4 501.8	-7.5%	5 963.4	56.2%
Coal ⁵	173.0	-11.4%	-13.5%	20.6%	1 470.5	1 777.8	-17.5%	2 341.7	22.1%
Oil ⁵	13.6	-17.6%	-11.9%	1.6%	121.8	141.8	-14.1%	185.1	1.7%
Natural Gas ⁵	266.6	-2.6%	-14.4%	31.7%	2 306.6	2 318.4	-0.5%	3 081.7	29.0%
Combustible Renewables ⁵	23.5	2.9%	-3.4%	2.8%	221.4	220.5	0.4%	296.7	2.8%
Other Combustibles ⁵	5.0	3.3%	-4.6%	0.6%	44.1	43.2	2.0%	58.2	0.5%
Nuclear	135.6	-9.4%	-5.3%	16.1%	1 331.6	1 429.7	-6.9%	1 898.4	17.9%
Hydro	116.4	10.7%	-9.8%	13.8%	1 183.6	1 136.0	4.2%	1 502.9	14.2%
Wind	63.1	-1.8%	8.5%	7.5%	657.9	590.8	11.4%	826.4	7.8%
Solar	36.9	18.2%	-14.2%	4.4%	326.9	275.2	18.8%	336.9	3.2%
Geothermal	4.0	-2.2%	-3.2%	0.5%	37.4	38.2	-2.0%	50.3	0.5%
Other Renewables	0.1	19.0%	1.5%	0.0%	0.8	0.7	12.6%	1.0	0.0%
Non-Specified	3.3	18.9%	-6.6%	0.4%	28.9	25.0	15.3%	32.9	0.3%
RENEWABLES	244.0	7.2%	-5.7%	29.0%	2 428.1	2 261.5	7.4%	3 014.1	28.4%
NON-RENEWABLES	597.0	-6.9%	-12.2%	71.0%	5 303.4	5 736.0	-7.5%	7 598.0	71.6%
TOTAL NET PRODUCTION	841.0	-3.2%	-10.4%		7 731.5	7 997.4	-3.3%	10 612.1	
+ Imports	37.7	-4.3%	-2.6%		361.8	369.6	-2.1%	491.8	
- Exports	37.0	-8.2%	-8.3%		375.0	361.8	3.7%	483.9	
= ELECTRICITY SUPPLIED	841.6	-3.0%	-10.1%		7 718.3	8 005.3	-3.6%	10 620.0	
- Used for pumped storage ⁴	7.3	-5.2%	-15.7%		67.6	62.3	8.5%	82.8	
- T&D Losses ⁴	41.5	-12.5%	-27.8%		460.3	491.2	-6.3%	651.7	
= ELECTRICITY CONSUMED	792.9	-2.5%	-8.9%		7 190.5	7 451.8	-3.5%	9 885.5	

¹ current month to month of last year change

⁴ estimated for certain countries

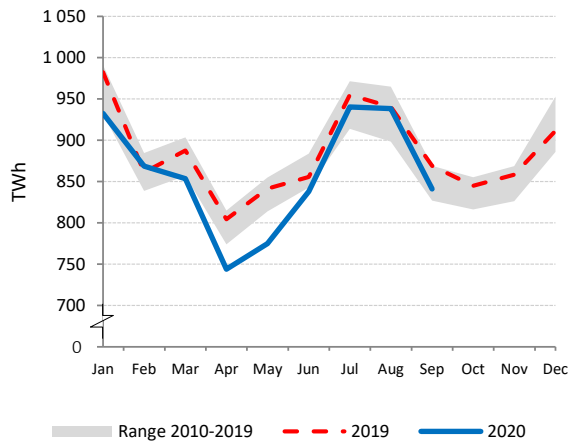
² month-to-month change

⁵ the breakdown of conventional thermal is estimated from annual data for

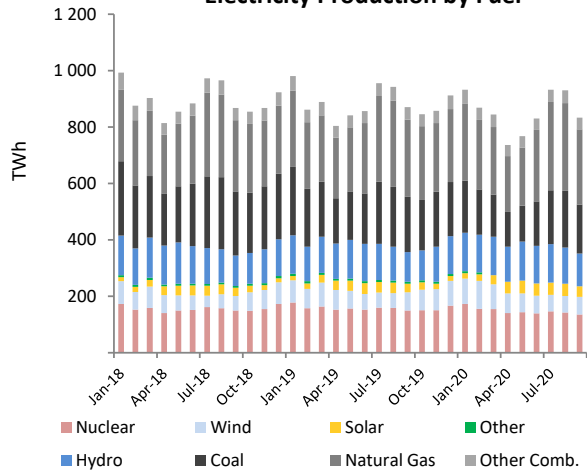
³ year-to-date compared to same period last year

Canada, Estonia and Italy

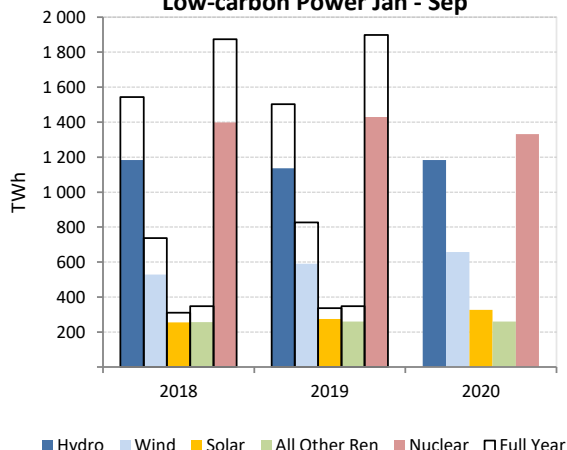
Electricity Production



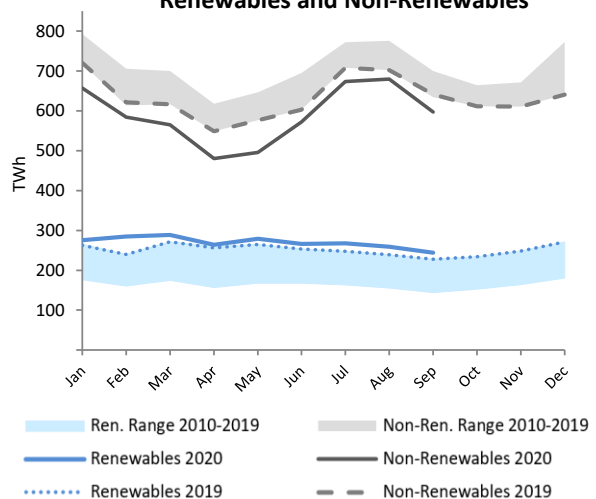
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Renewables and Non-Renewables



OECD Americas

	Sep 2020				Year-to-Date			2019	
	TWh	change ¹	change ²	share	2020	2019	change ³	TWh	share
CONVENTIONAL THERMAL	252.6	-10.7%	-19.5%	59.8%	2 222.8	2 379.8	-6.6%	3 109.6	58.9%
Coal ⁵	78.5	-20.5%	-23.0%	18.6%	671.0	867.8	-22.7%	1 118.3	21.2%
Oil ⁵	6.0	-11.8%	-21.1%	1.4%	60.1	59.0	1.9%	76.8	1.5%
Natural Gas ⁵	161.4	-5.2%	-18.0%	38.2%	1 428.5	1 386.5	3.0%	1 826.5	34.6%
Combustible Renewables ⁵	5.9	-5.9%	-8.2%	1.4%	55.2	58.9	-6.3%	77.6	1.5%
Other Combustibles ⁵	0.9	-4.8%	-7.5%	0.2%	8.1	7.7	4.6%	10.4	0.2%
Nuclear	73.0	-3.0%	-6.4%	17.3%	679.1	688.9	-1.4%	916.0	17.4%
Hydro	57.6	8.1%	-14.2%	13.7%	601.8	596.7	0.9%	784.8	14.9%
Wind	27.4	-1.0%	2.7%	6.5%	281.3	255.6	10.1%	350.5	6.6%
Solar	9.7	17.6%	-14.4%	2.3%	87.0	71.1	22.5%	89.2	1.7%
Geothermal	1.7	-3.3%	-3.2%	0.4%	15.6	16.2	-4.1%	21.0	0.4%
Other Renewables	-	-	-	-	-	0.0	-	0.0	0.0%
Non-Specified	0.3	-22.1%	-9.9%	0.1%	3.1	3.5	-12.2%	4.7	0.1%
RENEWABLES	102.2	5.2%	-9.7%	24.2%	1 040.9	998.5	4.3%	1 323.1	25.1%
NON-RENEWABLES	320.0	-9.2%	-17.0%	75.8%	2 849.8	3 013.4	-5.4%	3 952.7	74.9%
TOTAL NET PRODUCTION	422.2	-6.0%	-15.4%		3 890.7	4 011.8	-3.0%	5 275.8	
+ Imports	6.4	0.4%	-7.6%		56.6	59.3	-4.7%	74.3	
- Exports	6.9	-10.1%	-28.7%		71.3	61.9	15.3%	81.3	
= ELECTRICITY SUPPLIED	421.8	-5.9%	-15.0%		3 875.9	4 009.3	-3.3%	5 268.8	
- Used for pumped storage ⁴	2.5	-9.5%	-26.7%		21.3	20.9	1.8%	26.2	
- T&D Losses ⁴	18.2	-21.3%	-44.1%		239.4	255.9	-6.4%	333.1	
= ELECTRICITY CONSUMED	401.1	-5.0%	-12.8%		3 615.3	3 732.5	-3.1%	4 909.4	

¹ current month to month of last year change

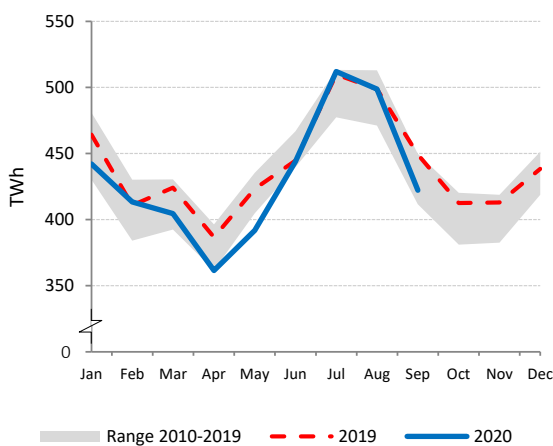
⁴ estimated for certain countries

² month-to-month change

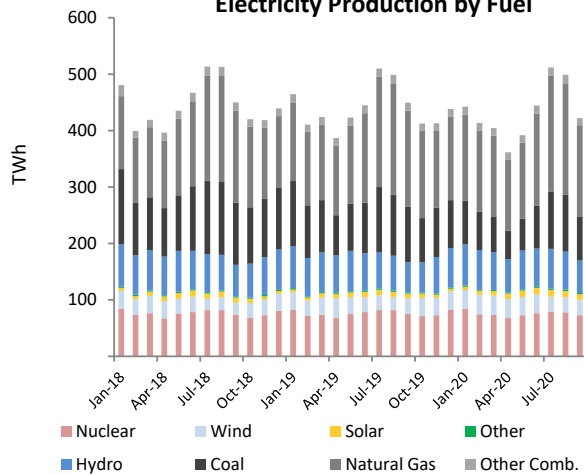
⁵ the breakdown of conventional thermal is estimated from annual data for Canada

³ year-to-date compared to same period last year

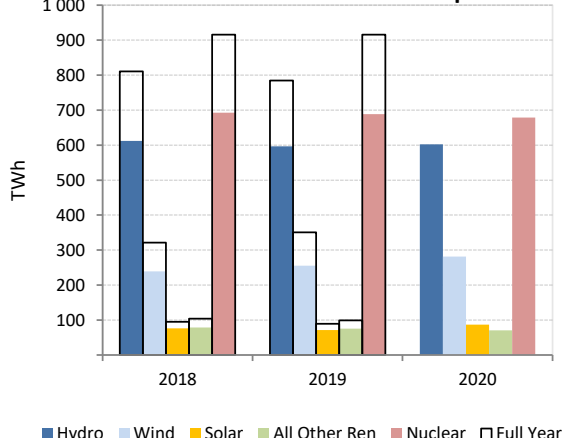
Electricity Production



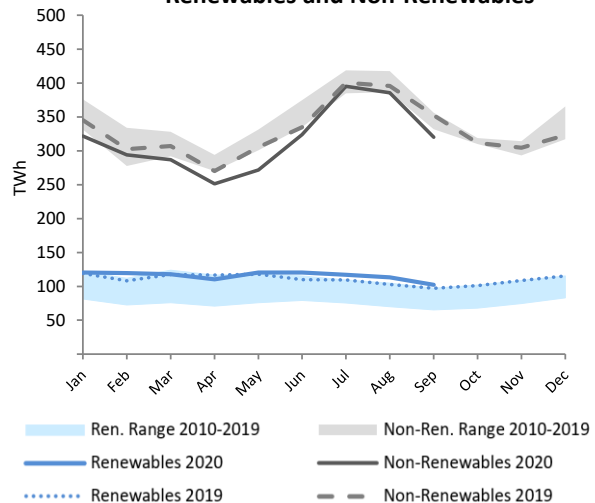
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Renewables and Non-Renewables



OECD Asia Oceania

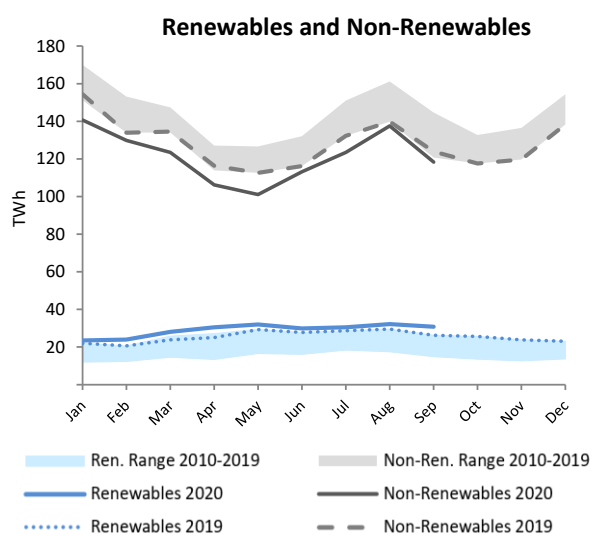
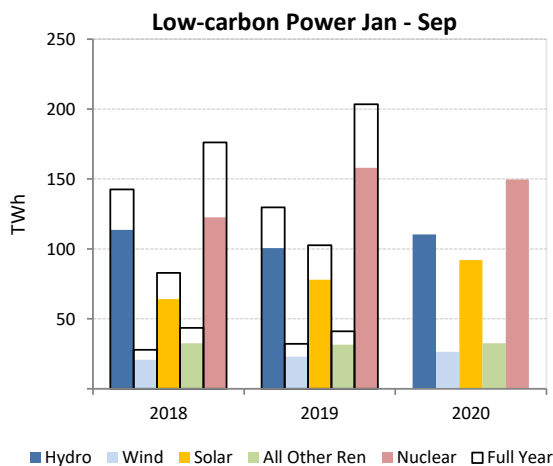
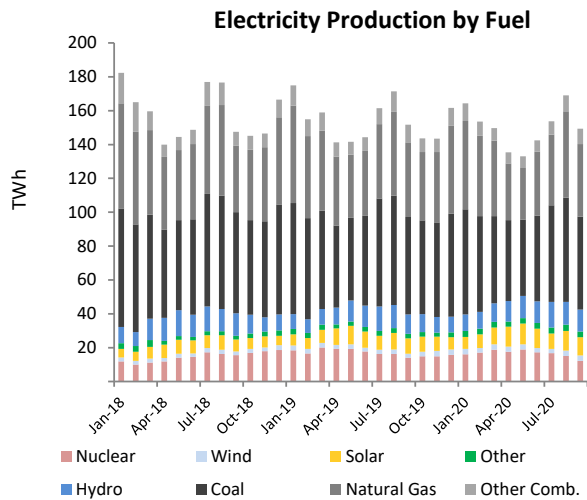
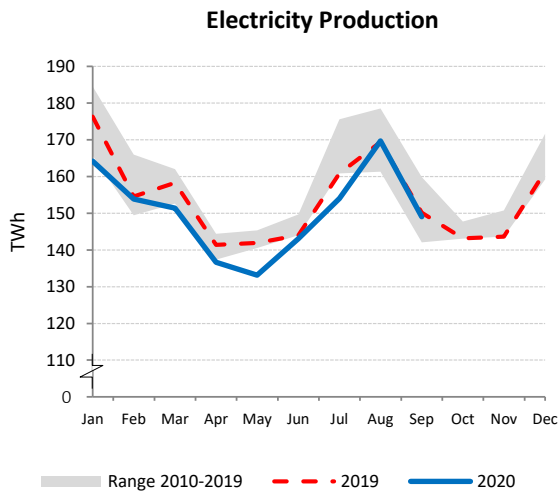
	Sep 2020				Year-to-Date			2019	
	TWh	change ¹	change ²	share	2020	2019	change ³	TWh	share
CONVENTIONAL THERMAL	106.6	-3.6%	-13.1%	71.5%	946.1	1 012.0	-6.5%	1 343.9	72.8%
Coal	54.6	-5.3%	-11.5%	36.6%	491.7	516.0	-5.4%	687.5	37.3%
Oil	4.0	-34.2%	-9.0%	2.7%	32.3	49.2	-34.2%	63.2	3.4%
Natural Gas	43.0	-2.4%	-15.6%	28.8%	381.5	407.4	-6.3%	541.1	29.3%
Combustible Renewables	3.0	22.0%	2.5%	2.0%	24.5	23.5	4.3%	30.7	1.7%
Other Combustibles	2.0	6.3%	-6.0%	1.3%	16.1	15.9	0.9%	21.4	1.2%
Nuclear	12.2	-12.8%	-18.8%	8.2%	149.6	157.9	-5.3%	203.5	11.0%
Hydro	12.9	13.2%	-4.4%	8.7%	110.4	100.5	9.8%	129.8	7.0%
Wind	3.2	32.0%	1.8%	2.2%	26.5	23.1	14.8%	32.1	1.7%
Solar	10.7	19.0%	-8.1%	7.2%	92.1	78.0	18.0%	102.7	5.6%
Geothermal	0.8	-4.6%	-4.3%	0.6%	7.7	7.6	1.2%	10.0	0.5%
Other Renewables	0.1	37.1%	2.5%	0.0%	0.4	0.4	25.9%	0.5	0.0%
Non-Specified	2.5	36.2%	-7.4%	1.7%	22.2	17.4	27.9%	22.7	1.2%
RENEWABLES	30.8	17.2%	-4.5%	20.6%	261.6	233.1	12.3%	305.7	16.6%
NON-RENEWABLES	118.3	-4.5%	-14.0%	79.4%	1 093.5	1 163.8	-6.0%	1 539.4	83.4%
TOTAL NET PRODUCTION	149.0	-0.7%	-12.2%		1 355.1	1 396.9	-3.0%	1 845.1	
+ Imports	-	-	-		-	-	-	-	
- Exports	-	-	-		-	-	-	-	
= ELECTRICITY SUPPLIED	149.0	-0.7%	-12.2%		1 355.1	1 396.9	-3.0%	1 845.1	
- Used for pumped storage ⁴	1.6	3.7%	-15.2%		12.9	11.8	8.8%	15.6	
- T&D Losses ⁴	6.4	-1.1%	-11.8%		58.4	59.9	-2.6%	79.3	
= ELECTRICITY CONSUMED	141.0	-0.8%	-12.2%		1 283.8	1 325.1	-3.1%	1 750.3	

¹ current month to month of last year change

⁴ estimated for certain countries

² month-to-month change

³ year-to-date compared to same period last year



OECD Europe

	Sep 2020				Year-to-Date			2019	
	TWh	change ¹	change ²	share	2020	2019	change ³	TWh	share
CONVENTIONAL THERMAL	122.5	3.3%	1.2%	45.4%	995.5	1 110.0	-10.3%	1 509.9	43.2%
Coal ⁵	39.9	2.3%	9.3%	14.8%	307.8	394.0	-21.9%	535.9	15.4%
Oil ⁵	3.7	-1.4%	4.3%	1.4%	29.4	33.7	-12.9%	45.1	1.3%
Natural Gas ⁵	62.2	4.4%	-2.4%	23.1%	496.6	524.6	-5.3%	714.1	20.5%
Combustible Renewables ⁵	14.6	3.3%	-2.4%	5.4%	141.7	138.1	2.6%	188.4	5.4%
Other Combustibles ⁵	2.1	4.2%	-1.9%	0.8%	20.0	19.6	1.9%	26.4	0.8%
Nuclear	50.4	-16.5%	0.6%	18.7%	502.8	582.8	-13.7%	778.9	22.3%
Hydro	45.8	13.4%	-5.3%	17.0%	471.4	438.8	7.4%	588.3	16.9%
Wind	32.5	-4.9%	14.8%	12.1%	350.1	312.1	12.2%	443.8	12.7%
Solar	16.5	18.0%	-17.5%	6.1%	147.8	126.1	17.2%	145.0	4.2%
Geothermal	1.5	0.3%	-2.4%	0.5%	14.2	14.4	-1.4%	19.3	0.6%
Other Renewables	0.0	-	-	0.0%	0.4	0.4	-	0.5	0.0%
Non-Specified	0.4	-13.9%	2.3%	0.1%	3.6	4.2	-14.4%	5.5	0.2%
RENEWABLES	111.0	6.4%	-2.0%	41.2%	1 125.5	1 029.9	9.3%	1 385.3	39.7%
NON-RENEWABLES	158.7	-4.0%	1.4%	58.8%	1 360.2	1 558.8	-12.7%	2 106.0	60.3%
TOTAL NET PRODUCTION	269.7	0.0%	-0.1%		2 485.7	2 588.7	-4.0%	3 491.2	
+ Imports	31.2	-5.2%	-1.4%		305.3	310.3	-1.6%	417.5	
- Exports	30.1	-7.8%	-1.9%		303.7	299.9	1.3%	402.6	
= ELECTRICITY SUPPLIED	270.8	0.4%	0.0%		2 487.3	2 599.1	-4.3%	3 506.1	
- Used for pumped storage ⁴	3.3	-5.7%	-5.3%		33.4	29.5	13.1%	41.0	
- T&D Losses ⁴	16.8	-5.2%	-3.9%		162.5	175.4	-7.3%	239.3	
= ELECTRICITY CONSUMED	250.8	0.8%	0.3%		2 291.3	2 394.2	-4.3%	3 225.8	

¹ current month to month of last year change

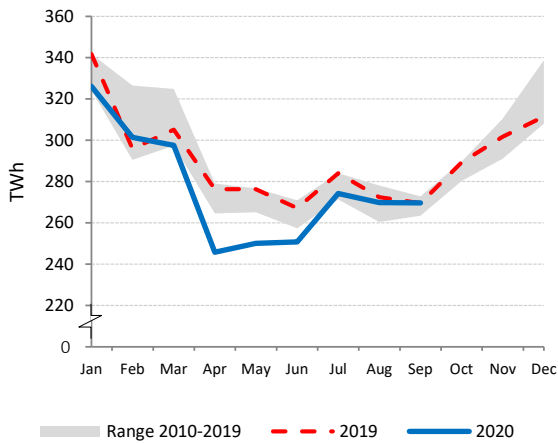
⁴ estimated for certain countries

² month-to-month change

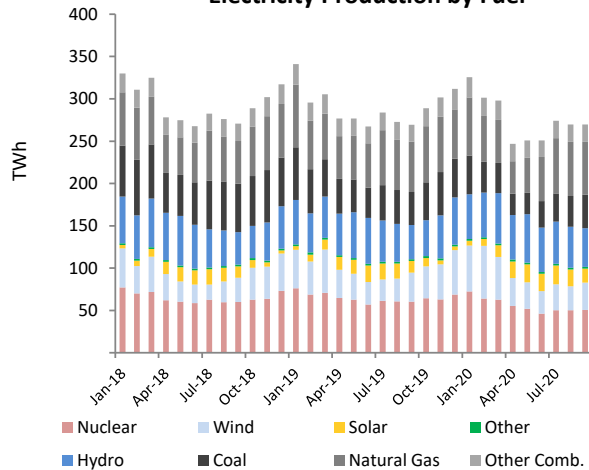
⁵ the breakdown of conventional thermal is estimated from annual data for Estonia and Italy

³ year-to-date compared to same period last year

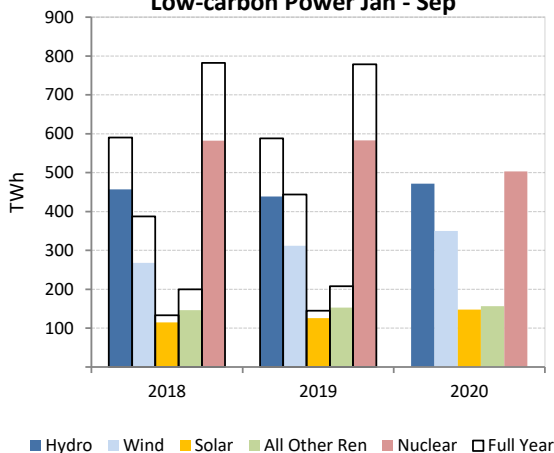
Electricity Production



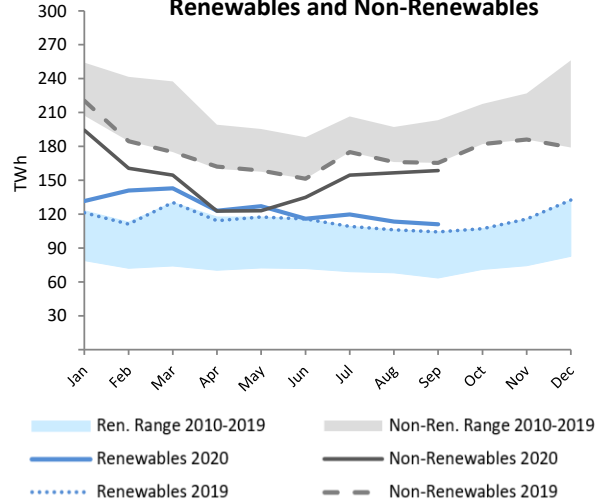
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Renewables and Non-Renewables



IEA Total

	Sep 2020				Year-to-Date			2019	
	TWh	change ¹	change ²	share	2020	2019	change ³	TWh	share
CONVENTIONAL THERMAL	475.6	-6.0%	-13.7%	57.7%	4 101.5	4 443.3	-7.7%	5 886.1	56.5%
Coal ⁵	170.2	-11.6%	-13.9%	20.6%	1 442.5	1 750.1	-17.8%	2 304.6	22.1%
Oil ⁵	13.2	-17.4%	-11.9%	1.6%	117.1	138.5	-15.4%	180.3	1.7%
Natural Gas ⁵	264.2	-2.7%	-14.4%	32.0%	2 281.9	2 296.3	-0.6%	3 053.3	29.3%
Combustible Renewables ⁵	23.0	3.0%	-3.5%	2.8%	216.0	215.2	0.4%	289.7	2.8%
Other Combustibles ⁵	5.0	3.3%	-4.7%	0.6%	44.0	43.1	2.0%	58.1	0.6%
Nuclear	135.1	-9.4%	-5.3%	16.4%	1 327.0	1 425.2	-6.9%	1 892.9	18.2%
Hydro	108.4	11.4%	-10.4%	13.2%	1 118.7	1 065.0	5.0%	1 407.6	13.5%
Wind	62.5	-2.0%	8.7%	7.6%	652.9	586.3	11.4%	819.9	7.9%
Solar	36.2	18.2%	-14.6%	4.4%	321.5	270.6	18.8%	330.2	3.2%
Geothermal	3.5	-2.0%	-3.0%	0.4%	32.9	33.8	-2.5%	44.3	0.4%
Other Renewables	0.1	19.0%	1.5%	0.0%	0.8	0.7	12.6%	1.0	0.0%
Non-Specified	3.2	19.1%	-6.6%	0.4%	28.7	24.9	15.4%	32.7	0.3%
RENEWABLES	233.8	7.3%	-5.9%	28.3%	2 342.9	2 171.5	7.9%	2 892.7	27.8%
NON-RENEWABLES	590.9	-7.0%	-12.3%	71.7%	5 241.2	5 678.1	-7.7%	7 521.9	72.2%
TOTAL NET PRODUCTION	824.7	-3.3%	-10.6%		7 584.1	7 849.6	-3.4%	10 414.6	
+ Imports	34.9	-6.3%	-3.9%		341.6	349.0	-2.1%	464.6	
- Exports	35.7	-8.9%	-8.9%		363.1	348.8	4.1%	467.2	
= ELECTRICITY SUPPLIED	823.9	-3.2%	-10.4%		7 562.7	7 849.8	-3.7%	10 412.0	
- Used for pumped storage ⁴	7.2	-5.0%	-15.9%		66.5	61.5	8.2%	81.7	
- T&D Losses ⁴	40.3	-13.0%	-28.3%		449.4	480.6	-6.5%	637.6	
= ELECTRICITY CONSUMED	776.5	-2.6%	-9.1%		7 046.8	7 307.7	-3.6%	9 692.7	

¹ current month to month of last year change

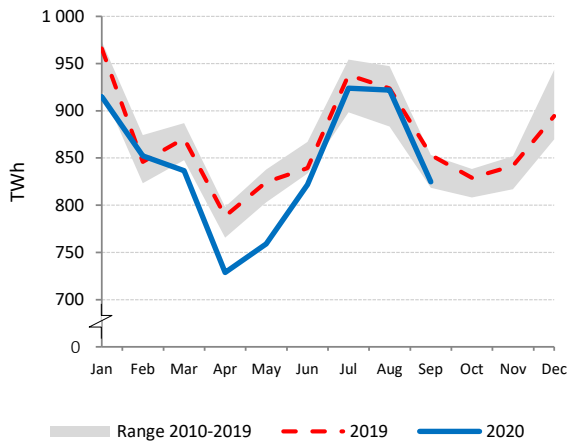
⁴ estimated for certain countries

² month-to-month change

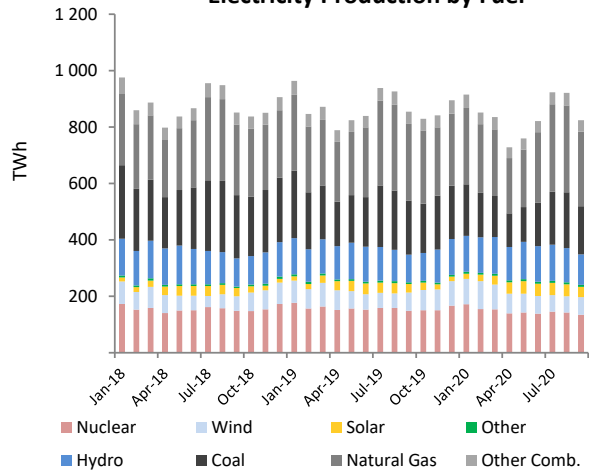
⁵ the breakdown of conventional thermal is estimated from annual data for Canada, Estonia, and Italy

³ year-to-date compared to same period last year

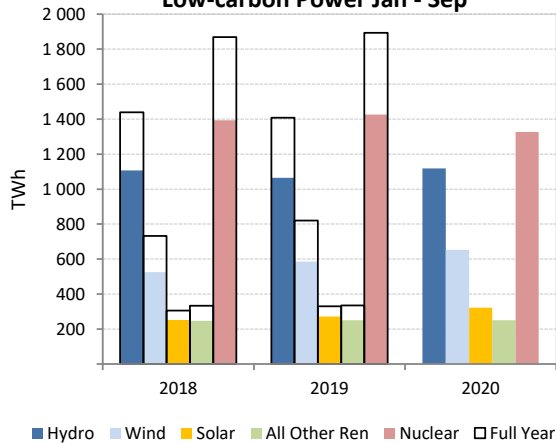
Electricity Production



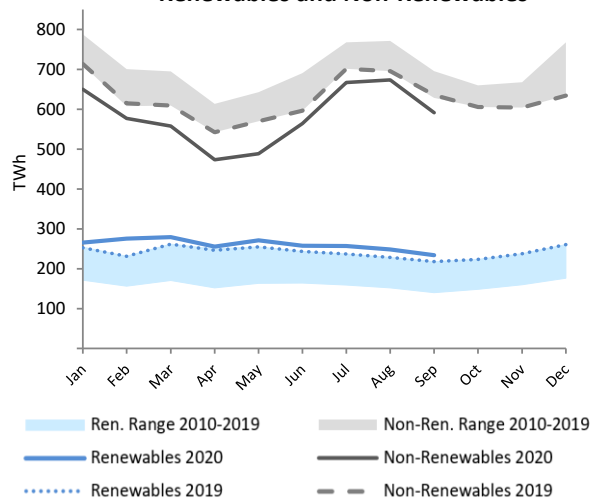
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Renewables and Non-Renewables

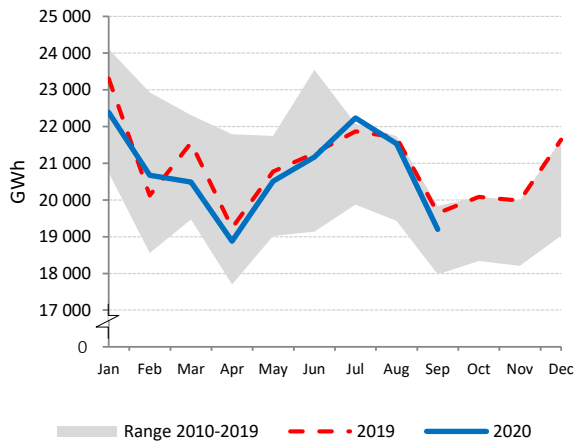


AUSTRALIA

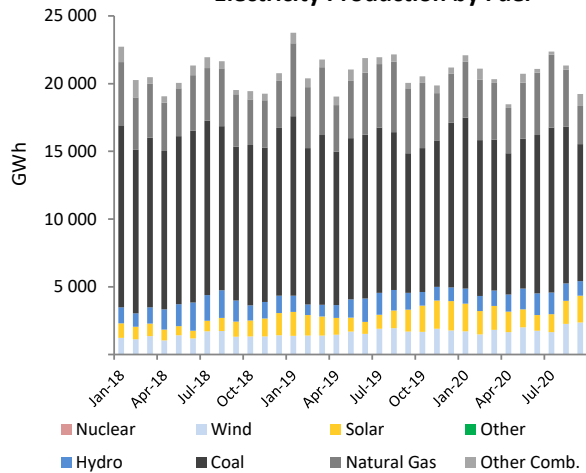
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	13 778	-8.7%	-15.5%	71.8%	144 140	152 066	-5.2%	199 210	79.3%
Coal	10 070	-2.4%	-13.0%	52.4%	102 677	104 251	-3.9%	137 937	54.9%
Oil	663	389.2%	739.5%	3.5%	2 186	3 682	-40.6%	4 435	1.8%
Natural Gas	2 824	-41.1%	-32.9%	14.7%	37 232	41 850	-11.0%	53 819	21.4%
Combustible Renewables	221	-9.4%	-2.2%	1.2%	2 045	2 283	-10.4%	3 020	1.2%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1 073	-13.4%	-15.5%	5.6%	11 696	11 228	4.2%	14 276	5.7%
Wind	2 358	39.9%	4.3%	12.3%	16 688	14 381	16.0%	19 718	7.8%
Solar	1 990	22.4%	16.5%	10.4%	14 561	11 812	23.3%	17 997	7.2%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	5 643	17.7%	3.3%	29.4%	44 990	39 704	13.3%	55 010	21.9%
NON-RENEWABLES	13 557	-8.7%	-15.7%	70.6%	142 095	149 782	-5.1%	196 190	78.1%
TOTAL NET PRODUCTION	19 200	-2.3%	-10.9%		187 085	189 486	-1.3%	251 200	
+ Imports	-	-	-		-	-	-	-	
- Exports	-	-	-		-	-	-	-	
= ELECTRICITY SUPPLIED	19 200	-2.3%	-10.9%		187 085	189 486	-1.3%	251 200	
- Used for pumped storage ⁴	31	-13.4%	-15.5%		338	325	4.2%	413	
- T&D Losses ⁴	1 007	-2.3%	-10.9%		9 808	9 934	-1.3%	13 169	
= ELECTRICITY CONSUMED	18 162	-2.2%	-10.8%		176 939	179 228	-1.3%	237 618	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

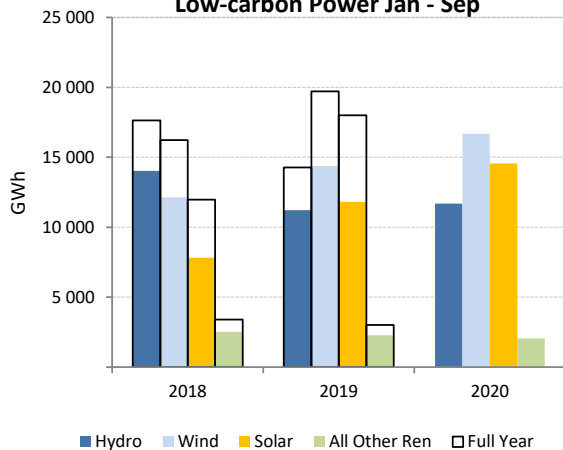
Electricity Production



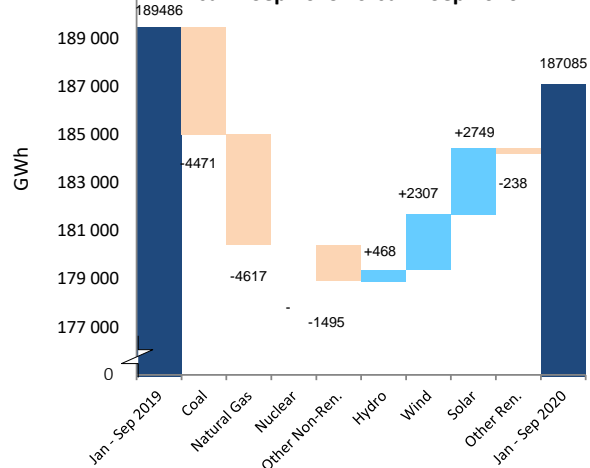
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



AUSTRIA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	1 069	-34.1%	-2.1%	18.8%	12 120	13 812	-12.3%	19 838	28.1%
Coal	146	-8.9%	-0.7%	2.6%	1 704	2 398	-28.9%	3 244	4.6%
Oil	56	53.2%	-4.9%	1.0%	481	499	-3.7%	659	0.9%
Natural Gas	419	-58.1%	-2.9%	7.4%	5 914	6 937	-14.7%	10 759	15.3%
Combustible Renewables	411	11.3%	0.1%	7.2%	3 618	3 426	5.6%	4 426	6.3%
Other Combustibles	38	-32.0%	-14.5%	0.7%	402	552	-27.2%	749	1.1%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	4 046	30.5%	-3.8%	71.2%	32 834	33 431	-1.8%	42 028	59.6%
Wind	414	8.6%	14.1%	7.3%	4 914	5 078	-3.2%	7 053	10.0%
Solar ⁴	149	-	-19.8%	2.6%	1 399	1 399	-	1 618	2.3%
Geothermal	0	-	-	0.0%	0	0	-	0	0.0%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	1	32.0%	-7.1%	0.0%	11	9	13.4%	12	0.0%
RENEWABLES	5 021	25.5%	-2.8%	88.4%	42 766	43 334	-1.3%	55 125	78.1%
NON-RENEWABLES	660	-47.4%	-3.4%	11.6%	8 512	10 396	-18.1%	15 424	21.9%
TOTAL NET PRODUCTION	5 680	8.1%	-2.9%		51 278	53 730	-4.6%	70 549	
+ Imports	1 660	-25.4%	1.5%		17 374	18 515	-6.2%	26 047	
- Exports	1 750	2.4%	-11.8%		16 997	17 784	-4.4%	22 918	
= ELECTRICITY SUPPLIED	5 590	-3.1%	1.7%		51 656	54 461	-5.2%	73 677	
- Used for pumped storage	387	-1.4%	0.8%		3 681	3 392	8.5%	4 826	
- T&D Losses	252	-4.4%	0.2%		2 418	2 532	-4.5%	3 419	
= ELECTRICITY CONSUMED	4 950	-3.2%	1.8%		45 557	48 538	-6.1%	65 432	

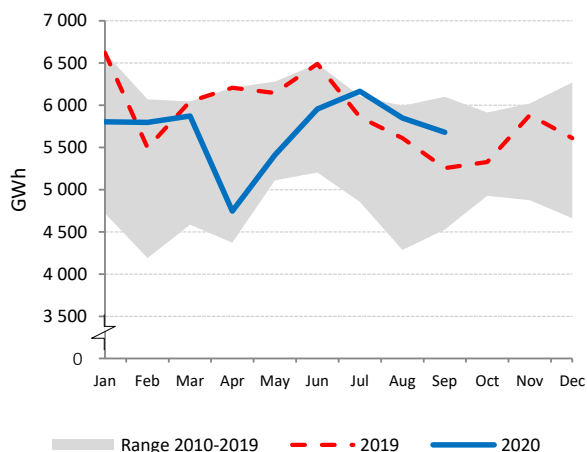
¹ current month to month of last year change

⁴ estimated by the IEA secretariat

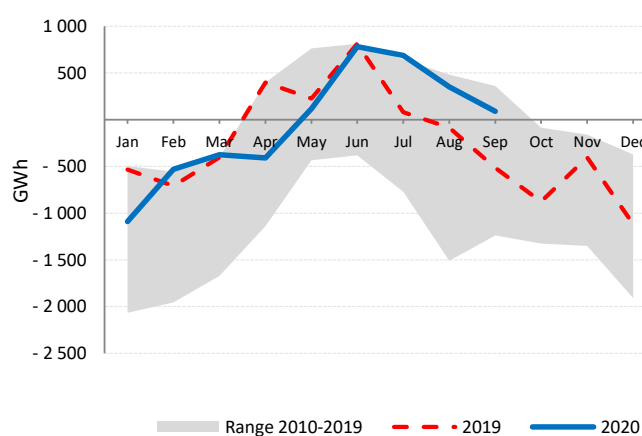
² month-to-month change

³ year-to-date compared to same period last year

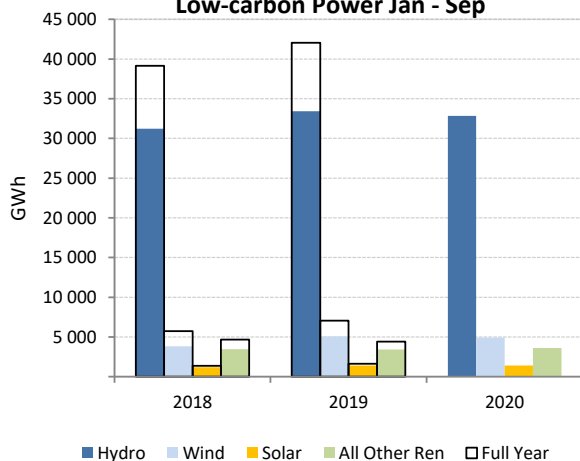
Electricity Production



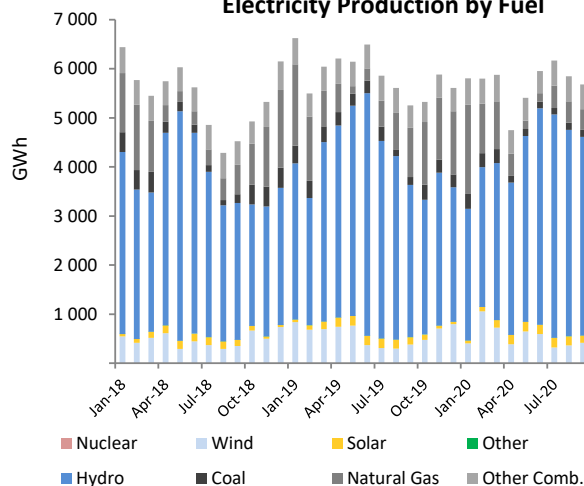
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



BELGIUM

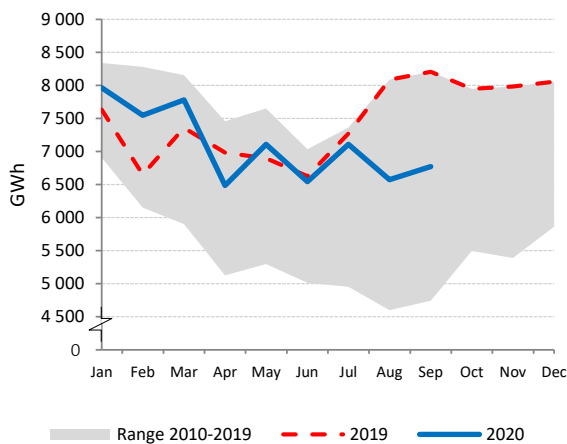
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	2 883	2.8%	-11.0%	42.6%	26 062	23 696	10.0%	33 507	37.4%
Coal	119	-32.1%	-32.3%	1.8%	1 516	1 838	-17.5%	2 434	2.7%
Oil	3	100.9%	52.5%	0.0%	14	19	-25.4%	26	0.0%
Natural Gas	2 265	7.7%	-10.3%	33.4%	19 645	17 176	14.4%	24 729	27.6%
Combustible Renewables	403	-2.4%	-6.0%	6.0%	3 919	3 664	7.0%	4 987	5.6%
Other Combustibles	93	-15.4%	-13.0%	1.4%	967	999	-3.2%	1 332	1.5%
Nuclear	2 573	-37.4%	27.0%	38.0%	23 855	31 243	-23.6%	41 359	46.1%
Hydro	101	69.9%	25.4%	1.5%	955	802	19.1%	1 147	1.3%
Wind	754	-6.1%	14.6%	11.1%	8 449	6 179	36.7%	9 369	10.4%
Solar	440	10.4%	-20.2%	6.5%	4 317	3 491	23.7%	3 919	4.4%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	19	-39.2%	9.7%	0.3%	252	309	-18.5%	408	0.5%
RENEWABLES	1 698	1.4%	-1.2%	25.1%	17 641	14 135	24.8%	19 422	21.6%
NON-RENEWABLES	5 073	-22.3%	4.5%	74.9%	46 250	51 585	-10.3%	70 288	78.4%
TOTAL NET PRODUCTION	6 771	-17.5%	3.0%		63 890	65 720	-2.8%	89 709	
+ Imports	1 211	261.2%	-0.2%		9 355	9 738	-3.9%	12 735	
- Exports	1 064	-32.5%	27.6%		9 720	10 762	-9.7%	14 589	
= ELECTRICITY SUPPLIED	6 918	-0.7%	-0.5%		63 525	64 696	-1.8%	87 855	
- Used for pumped storage	126	73.1%	20.6%		1 039	818	26.9%	1 162	
- T&D Losses	300	-1.5%	-0.5%		2 758	2 831	-2.6%	3 843	
= ELECTRICITY CONSUMED	6 492	-1.5%	-0.9%		59 729	61 047	-2.2%	82 850	

¹ current month to month of last year change

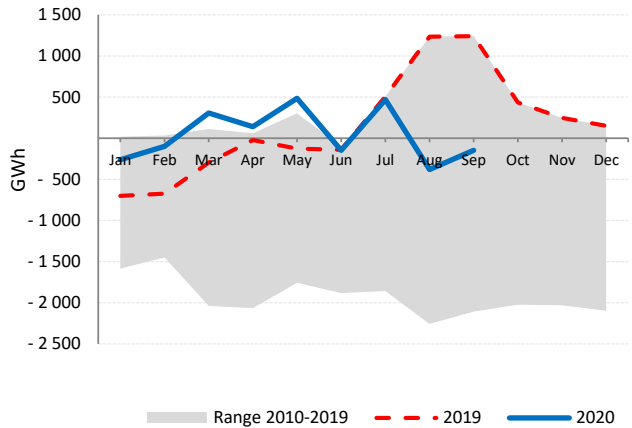
² month-to-month change

³ year-to-date compared to same period last year

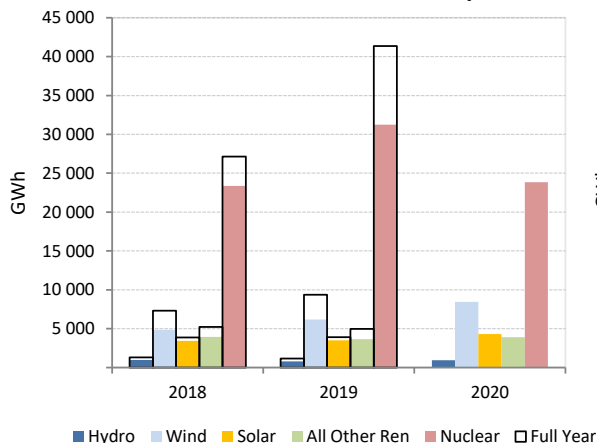
Electricity Production



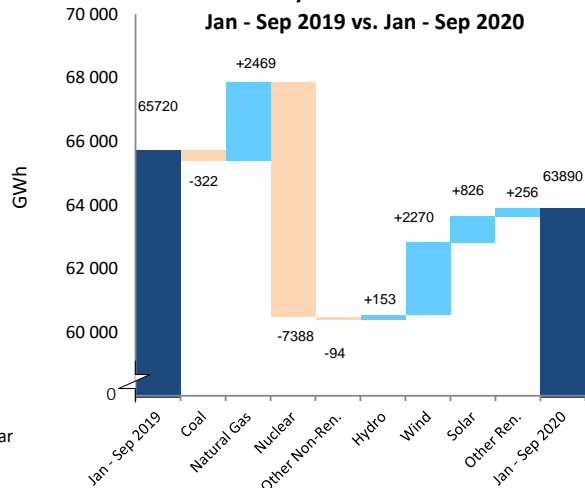
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



CANADA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	9 041	-3.6%	-8.6%	19.9%	83 527	91 703	-8.9%	123 037	19.4%
Coal ⁴	3 349	-3.6%	-8.6%	7.4%	30 936	33 964	-8.9%	45 570	7.2%
Oil ⁴	423	-3.6%	-8.6%	0.9%	3 911	4 293	-8.9%	5 760	0.9%
Natural Gas ⁴	4 524	-3.6%	-8.6%	9.9%	41 798	45 889	-8.9%	61 569	9.7%
Combustible Renewables ⁴	739	-3.6%	-8.6%	1.6%	6 823	7 491	-8.9%	10 051	1.6%
Other Combustibles ⁴	6	-3.6%	-8.6%	0.0%	60	65	-8.9%	88	0.0%
Nuclear	6 702	-18.3%	-18.2%	14.7%	71 202	70 916	0.4%	95 461	15.0%
Hydro	26 310	1.4%	-11.4%	57.8%	283 635	279 096	1.6%	378 127	59.6%
Wind	3 004	29.5%	24.5%	6.6%	25 867	23 984	7.9%	33 840	5.3%
Solar	460	11.5%	-9.1%	1.0%	3 723	3 631	2.5%	4 175	0.7%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	1	-	1	0.0%
Non-Specified	7	-29.1%	4.8%	0.0%	88	123	-28.7%	169	0.0%
RENEWABLES	30 512	3.7%	-8.7%	67.0%	320 048	314 204	1.9%	426 194	67.1%
NON-RENEWABLES	15 011	-10.8%	-13.2%	33.0%	147 994	155 252	-4.7%	208 617	32.9%
TOTAL NET PRODUCTION	45 524	-1.6%	-10.2%		468 042	469 456	-0.3%	634 811	
+ Imports	535	-56.0%	-5.5%		7 461	10 719	-30.4%	13 369	
- Exports	4 941	-17.4%	-30.5%		51 459	45 840	12.3%	60 376	
= ELECTRICITY SUPPLIED	41 118	-0.9%	-6.9%		424 045	434 335	-2.4%	587 804	
- Used for pumped storage ⁴	15	1.4%	-11.4%		158	155	1.6%	210	
- T&D Losses ⁴	2 417	-3.0%	-10.2%		24 953	25 199	-1.0%	34 015	
= ELECTRICITY CONSUMED	38 686	-0.8%	-6.7%		398 934	408 982	-2.5%	553 579	

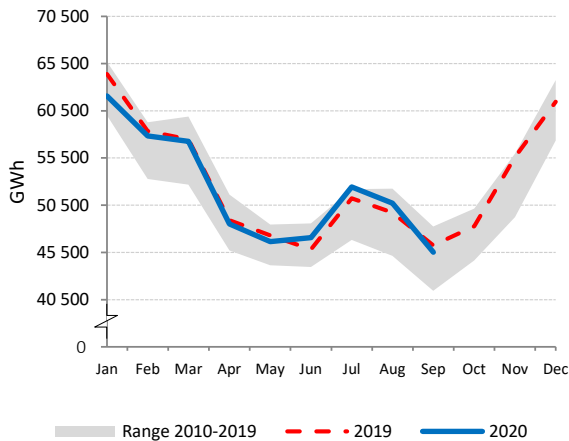
¹ current month to month of last year change

⁴ estimated from annual data

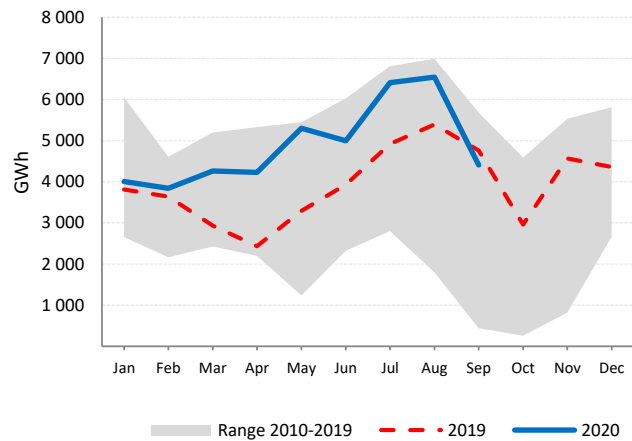
² month-to-month change

³ year-to-date compared to same period last year

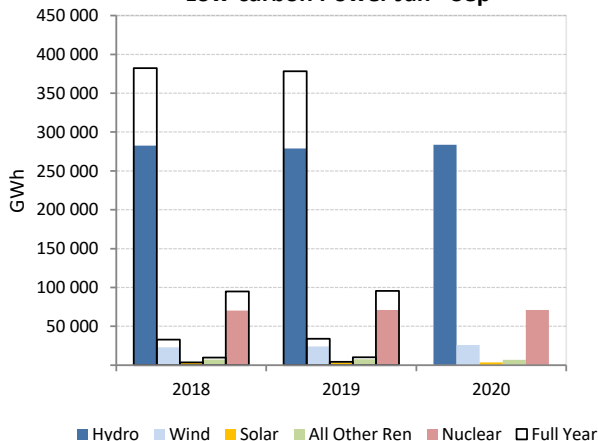
Electricity Production



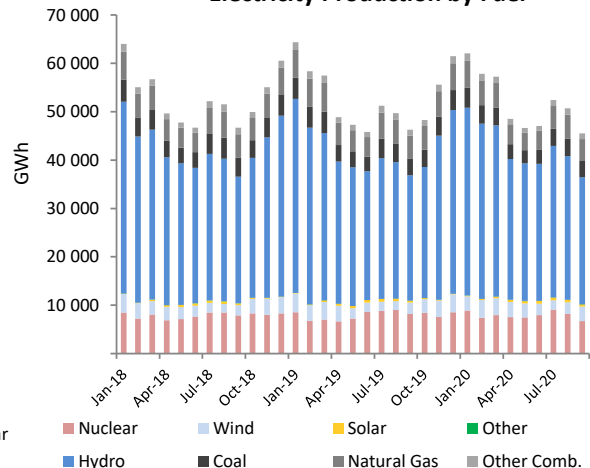
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



CHILE

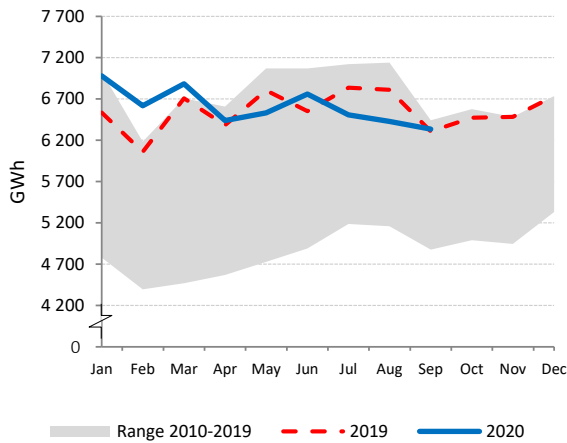
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	3 448	-4.2%	-4.1%	54.4%	37 355	36 702	1.8%	47 041	59.8%
Coal	1 899	-5.7%	12.0%	30.0%	18 305	19 569	-6.5%	25 431	32.3%
Oil	209	-36.9%	-21.0%	3.3%	3 219	1 956	64.6%	2 911	3.7%
Natural Gas	1 020	8.5%	-24.2%	16.1%	12 572	11 879	5.8%	14 521	18.5%
Combustible Renewables	321	2.1%	11.3%	5.1%	3 259	3 298	-1.2%	4 177	5.3%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1 733	-2.1%	3.1%	27.3%	13 324	14 670	-9.2%	20 456	26.0%
Wind	482	29.0%	-18.2%	7.6%	3 748	3 298	13.7%	4 802	6.1%
Solar	654	19.0%	18.9%	10.3%	4 881	4 174	16.9%	6 188	7.9%
Geothermal	18	26.0%	14.3%	0.3%	179	153	16.5%	202	0.3%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	3 208	6.1%	2.7%	50.6%	25 391	25 592	-0.8%	35 825	45.5%
NON-RENEWABLES	3 127	-4.8%	-5.4%	49.4%	34 096	33 404	2.1%	42 864	54.5%
TOTAL NET PRODUCTION	6 336	0.5%	-1.5%		59 487	58 996	0.8%	78 689	
+ Imports	-	-	-		-	-	-	-	
- Exports	-	-	-		-	-	-	-	
= ELECTRICITY SUPPLIED	6 336	0.5%	-1.5%		59 487	58 996	0.8%	78 689	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses	264	1.1%	-1.2%		2 448	2 701	-9.4%	3 520	
= ELECTRICITY CONSUMED	6 072	0.4%	-1.5%		57 038	56 295	1.3%	75 169	

¹ current month to month of last year change

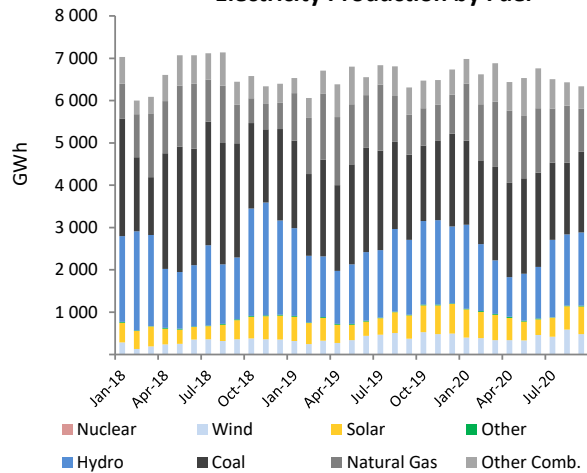
² month-to-month change

³ year-to-date compared to same period last year

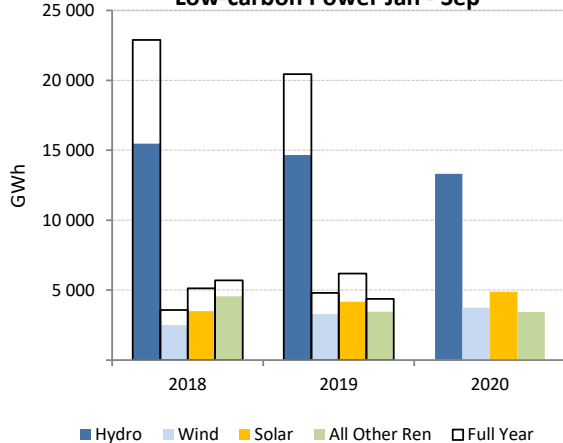
Electricity Production



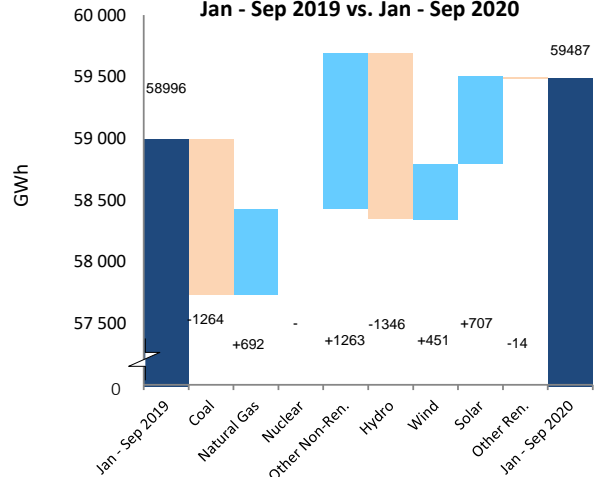
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



COLOMBIA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL⁴	1 802	3.4%	13.0%	28.7%	18 939	14 820	27.8%	20 749	27.8%
Coal ⁴	548	-13.8%	20.7%	8.7%	7 169	5 259	36.3%	7 615	10.2%
Oil ⁴	152	2.3%	2.0%	2.4%	1 357	1 350	0.5%	1 799	2.4%
Natural Gas ⁴	995	16.7%	13.0%	15.9%	9 437	7 281	29.6%	10 098	13.5%
Combustible Renewables ⁵	108	0.8%	-3.9%	1.7%	976	931	4.9%	1 236	1.7%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	4 448	-2.4%	-4.8%	71.0%	35 312	41 130	-14.1%	53 825	72.0%
Wind	1	-41.7%	-28.1%	0.0%	4	49	-92.4%	59	0.1%
Solar	16	33.6%	15.2%	0.3%	135	94	43.5%	131	0.2%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	4 574	-2.3%	-4.8%	73.0%	36 427	42 205	-13.7%	55 251	73.9%
NON-RENEWABLES	1 694	3.5%	14.3%	27.0%	17 963	13 890	29.3%	19 512	26.1%
TOTAL NET PRODUCTION	6 268	-0.8%	-0.3%		54 390	56 094	-3.0%	74 764	
+ Imports	823	-	58.5%		2 492	140	1684.2%	312	
- Exports	-	-	-		1	0	4196.7%	0	
= ELECTRICITY SUPPLIED	7 091	12.2%	4.2%		56 881	56 234	1.2%	75 075	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses	723	20.0%	-6.4%		6 528	5 857	11.5%	7 872	
= ELECTRICITY CONSUMED	6 368	11.4%	5.6%		50 352	50 377	0.0%	67 203	

¹ current month to month of last year change

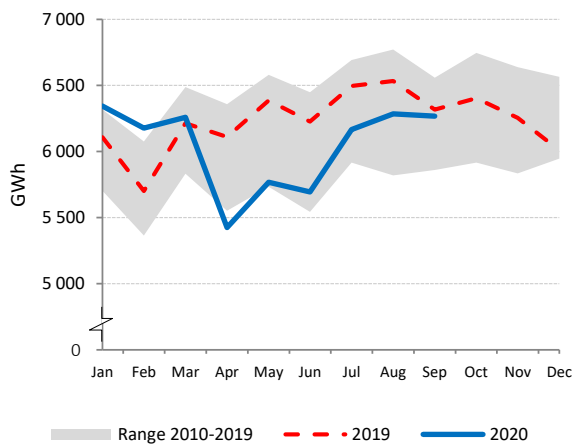
² month-to-month change

³ year-to-date compared to same period last year

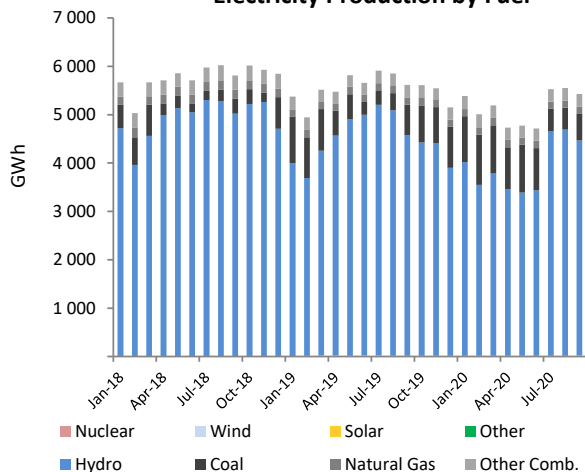
⁴ Distributed generation for conventional thermal is estimated by the IEA Secretariat

⁵ estimated based on annual data

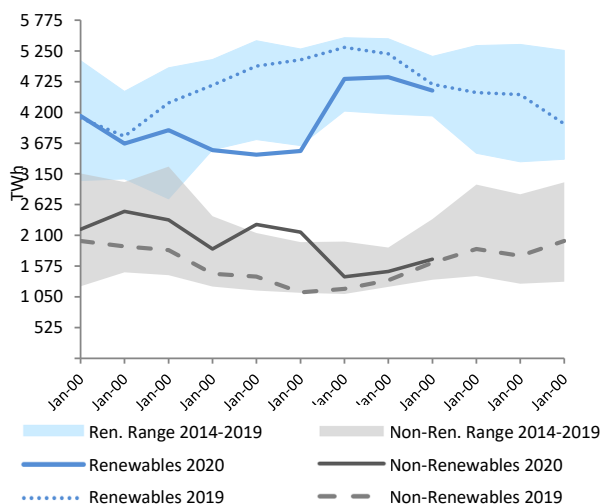
Electricity Production



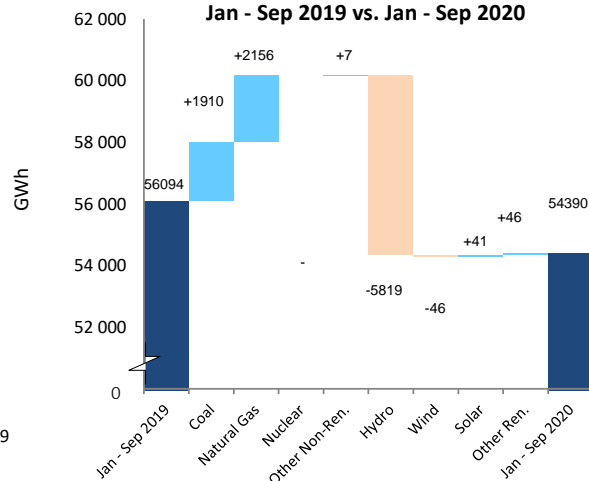
Electricity Production by Fuel



Renewables and Non-Renewables



Electricity Production Variation
Jan - Sep 2019 vs. Jan - Sep 2020



CZECH REPUBLIC

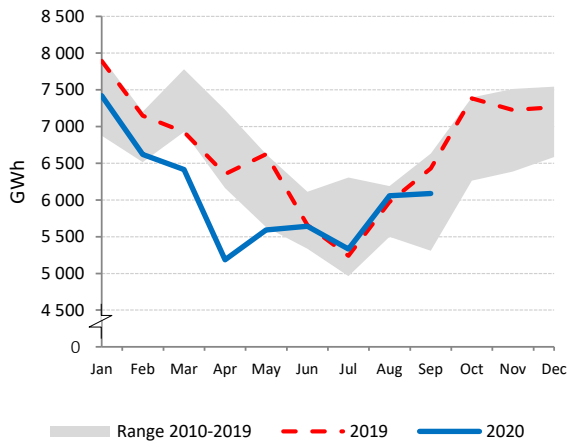
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	2 865	-22.9%	0.2%	47.1%	28 460	32 856	-13.4%	45 301	56.5%
Coal	2 208	-20.3%	16.0%	36.3%	20 658	25 716	-19.7%	35 406	44.2%
Oil	7	-21.2%	-22.9%	0.1%	58	79	-25.5%	106	0.1%
Natural Gas	259	-52.6%	-53.1%	4.3%	4 216	3 687	14.3%	5 197	6.5%
Combustible Renewables	386	0.7%	-0.3%	6.3%	3 464	3 318	4.4%	4 516	5.6%
Other Combustibles	5	-16.8%	-36.9%	0.1%	63	56	12.9%	76	0.1%
Nuclear	2 697	20.2%	3.4%	44.3%	20 845	20 398	2.2%	28 579	35.7%
Hydro	260	30.7%	-7.8%	4.3%	2 437	2 415	0.9%	3 143	3.9%
Wind	37	-17.5%	4.2%	0.6%	502	475	5.9%	691	0.9%
Solar	222	0.8%	-16.4%	3.7%	2 035	2 021	0.7%	2 291	2.9%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	9	3.4%	76.9%	0.1%	79	81	-3.4%	110	0.1%
RENEWABLES	905	6.8%	-6.7%	14.9%	8 438	8 230	2.5%	10 642	13.3%
NON-RENEWABLES	5 185	-7.2%	1.9%	85.1%	45 920	50 016	-8.2%	69 475	86.7%
TOTAL NET PRODUCTION	6 089	-5.3%	0.6%		54 357	58 246	-6.7%	80 116	
+ Imports	772	-8.3%	4.4%		9 655	8 388	15.1%	11 026	
- Exports	1 822	-14.6%	-5.9%		16 635	17 167	-3.1%	24 123	
= ELECTRICITY SUPPLIED	5 040	-1.9%	3.7%		47 377	49 467	-4.2%	67 020	
- Used for pumped storage	134	1.2%	2.9%		1 241	1 058	17.3%	1 508	
- T&D Losses	292	-21.8%	0.6%		2 903	3 152	-7.9%	4 300	
= ELECTRICITY CONSUMED	4 613	-0.4%	3.9%		43 232	45 257	-4.5%	61 212	

¹ current month to month of last year change

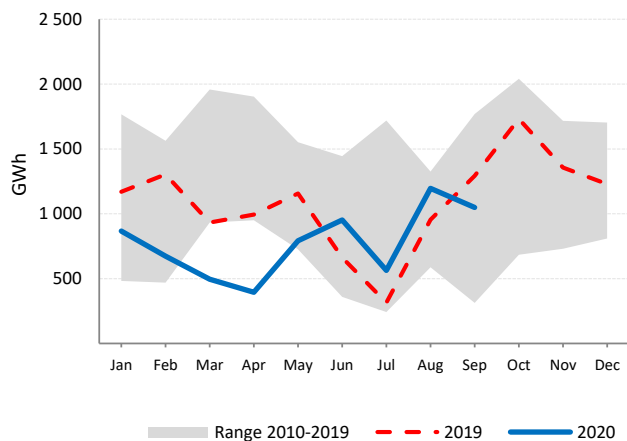
² month-to-month change

³ year-to-date compared to same period last year

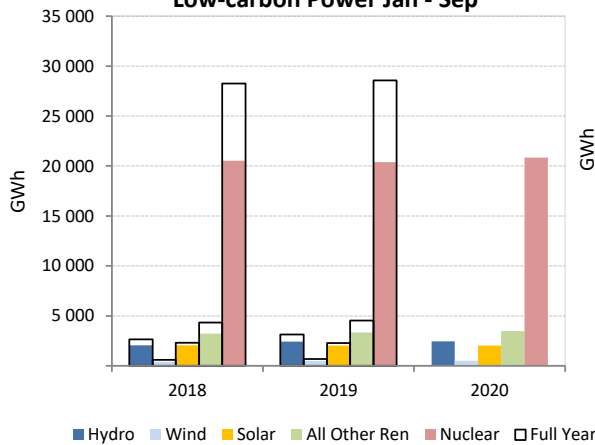
Electricity Production



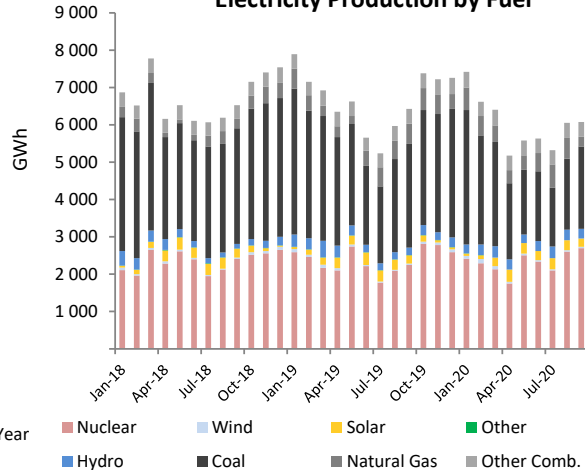
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



DENMARK

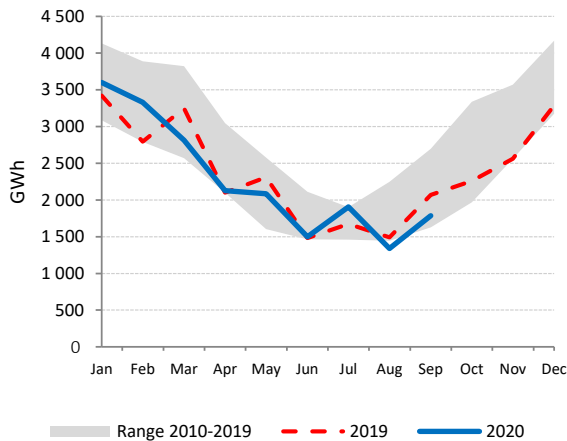
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	589	23.2%	22.1%	33.0%	7 236	7 879	-8.2%	11 562	40.3%
Coal	133	112.9%	0.0%	7.5%	2 283	2 179	4.8%	3 088	10.8%
Oil	16	121.7%	1.7%	0.9%	141	147	-4.5%	226	0.8%
Natural Gas	72	-17.0%	46.8%	4.1%	787	1 332	-40.9%	1 961	6.8%
Combustible Renewables	313	16.5%	39.8%	17.5%	3 484	3 686	-5.5%	5 552	19.4%
Other Combustibles	55	4.2%	-9.2%	3.1%	540	534	1.2%	736	2.6%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1	-7.0%	30.5%	0.1%	14	11	24.6%	17	0.1%
Wind	1 083	-28.2%	55.6%	60.7%	12 140	11 803	2.9%	16 150	56.3%
Solar	110	38.7%	-30.9%	6.2%	1 093	892	22.5%	963	3.4%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	1 507	-18.9%	39.5%	84.5%	16 730	16 392	2.1%	22 683	79.1%
NON-RENEWABLES	277	31.8%	6.9%	15.5%	3 752	4 193	-10.5%	6 010	20.9%
TOTAL NET PRODUCTION	1 784	-13.7%	33.2%		20 482	20 585	-0.5%	28 693	
+ Imports	1 853	37.9%	-14.5%		14 971	12 255	22.2%	15 982	
- Exports	957	54.7%	75.6%		10 097	7 520	34.3%	10 171	
= ELECTRICITY SUPPLIED	2 680	-4.0%	-9.5%		25 356	25 320	0.1%	34 503	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses	125	-8.1%	-1.4%		1 319	1 185	11.4%	1 611	
= ELECTRICITY CONSUMED	2 555	-3.8%	-9.9%		24 036	24 135	-0.4%	32 892	

¹ current month to month of last year change

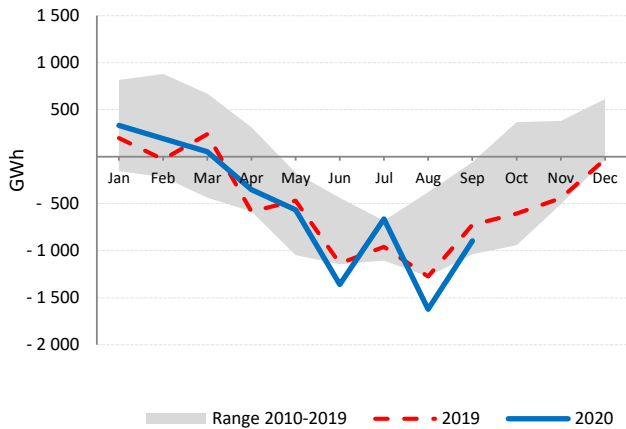
² month-to-month change

³ year-to-date compared to same period last year

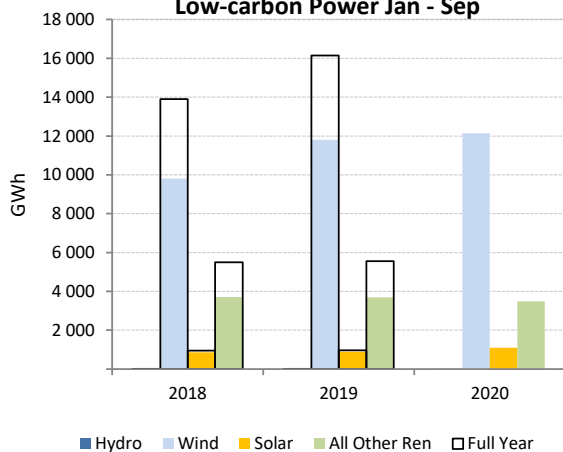
Electricity Production



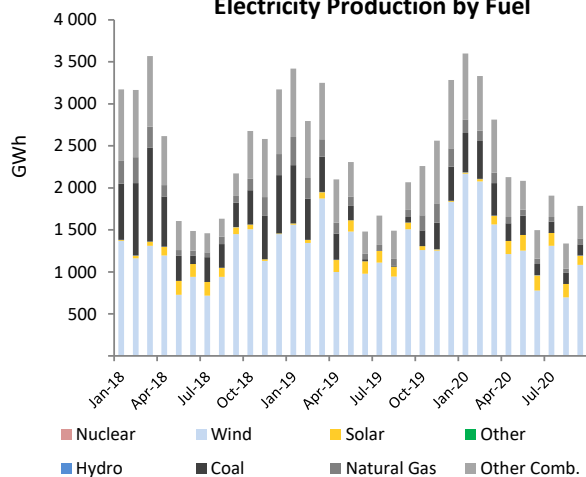
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



ESTONIA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	403	-3.7%	-19.8%	84.5%	2 832	4 555	-37.8%	5 821	88.2%
Coal ⁴	315	-3.7%	-19.8%	66.1%	2 214	3 560	-37.8%	4 549	68.9%
Oil ⁴	2	-3.7%	-19.7%	0.3%	12	19	-37.8%	24	0.4%
Natural Gas ⁴	2	-3.7%	-19.7%	0.5%	16	25	-37.8%	32	0.5%
Combustible Renewables ⁴	80	-3.7%	-19.8%	16.9%	565	908	-37.8%	1 161	17.6%
Other Combustibles ⁴	4	-3.7%	-19.8%	0.8%	27	43	-37.8%	55	0.8%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1	100.0%	-	0.2%	27	12	133.9%	19	0.3%
Wind	67	19.6%	157.7%	14.0%	602	482	24.8%	687	10.4%
Solar	6	-	-32.9%	1.2%	68	68	-	74	1.1%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	154	5.7%	13.5%	32.3%	1 261	1 469	-14.2%	1 940	29.4%
NON-RENEWABLES	323	-3.7%	-19.8%	67.7%	2 267	3 647	-37.8%	4 660	70.6%
TOTAL NET PRODUCTION	477	-0.9%	-11.4%		3 529	5 116	-31.0%	6 600	
+ Imports	514	47.7%	16.6%		5 459	3 510	55.5%	4 861	
- Exports	334	100.0%	-8.2%		2 752	2 221	23.9%	2 704	
= ELECTRICITY SUPPLIED	656	-0.8%	6.8%		6 235	6 406	-2.7%	8 757	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses ⁴	43	19.5%	1.2%		392	376	4.2%	500	
= ELECTRICITY CONSUMED	613	-2.0%	7.2%		5 843	6 029	-3.1%	8 257	

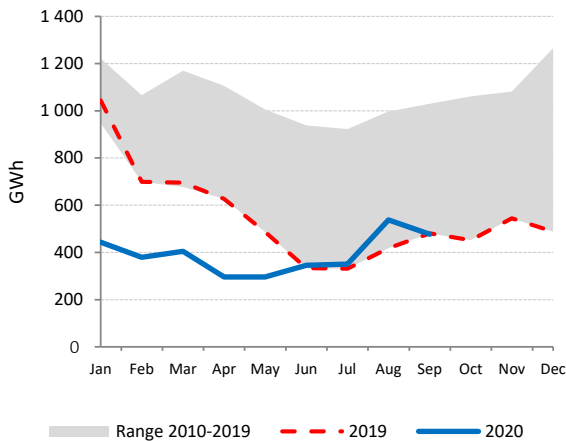
¹ current month to month of last year change

⁴ estimated from annual data

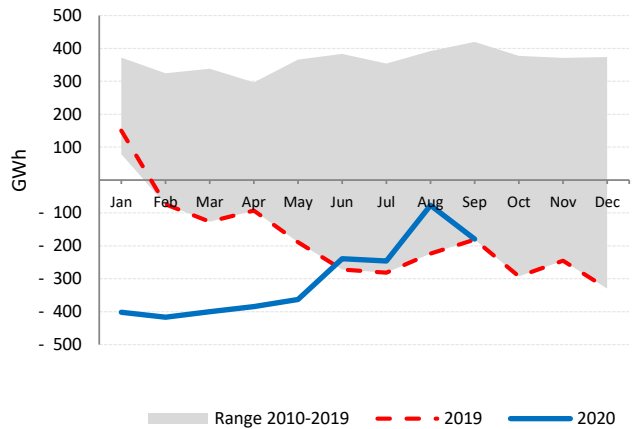
² month-to-month change

³ year-to-date compared to same period last year

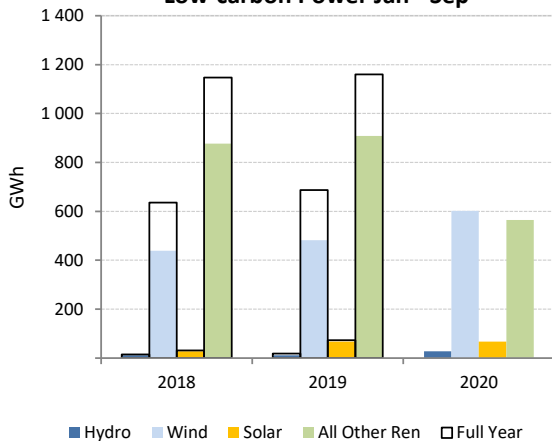
Electricity Production



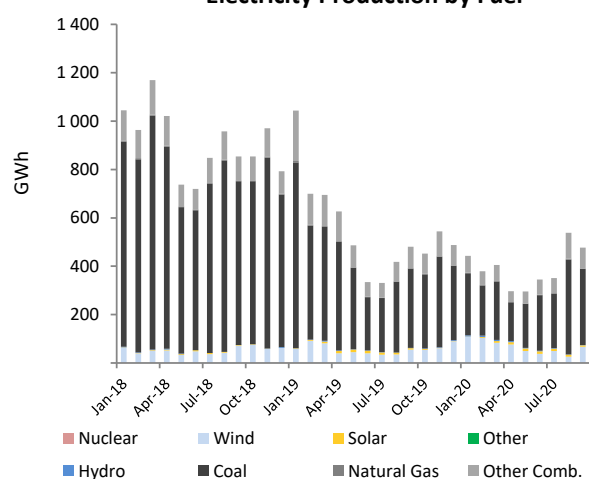
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



FINLAND

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	1 370	-9.8%	15.8%	29.4%	14 039	17 703	-20.7%	24 506	37.0%
Coal	283	-38.9%	75.0%	6.1%	3 639	5 346	-31.9%	7 607	11.5%
Oil	15	-11.8%	-11.8%	0.3%	137	178	-23.3%	242	0.4%
Natural Gas	295	30.1%	25.8%	6.3%	2 546	2 672	-4.7%	3 769	5.7%
Combustible Renewables	751	-4.0%	2.0%	16.1%	7 401	9 140	-19.0%	12 393	18.7%
Other Combustibles ⁴	26	-14.7%	-20.9%	0.6%	317	367	-13.7%	496	0.7%
Nuclear	1 599	2.0%	-3.6%	34.3%	16 689	16 758	-0.4%	22 927	34.7%
Hydro	945	15.1%	-9.8%	20.3%	11 406	9 175	24.3%	12 299	18.6%
Wind	715	66.8%	88.8%	15.4%	5 454	4 398	24.0%	5 985	9.0%
Solar	26	65.5%	-45.4%	0.6%	295	169	74.6%	178	0.3%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	187	-	249	0.4%
RENEWABLES	2 437	19.0%	10.2%	52.4%	24 556	22 882	7.3%	30 855	46.6%
NON-RENEWABLES	2 218	-4.6%	5.4%	47.6%	23 327	25 508	-8.6%	35 290	53.4%
TOTAL NET PRODUCTION	4 655	6.5%	7.9%		47 883	48 391	-1.0%	66 145	
+ Imports	1 757	-20.2%	-10.1%		16 047	17 844	-10.1%	23 938	
- Exports	461	87.3%	19.2%		4 906	2 903	69.0%	3 896	
= ELECTRICITY SUPPLIED	5 952	-6.0%	1.1%		59 024	63 331	-6.8%	86 187	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses	193	-5.7%	1.0%		1 911	2 052	-6.9%	2 793	
= ELECTRICITY CONSUMED	5 759	-6.0%	1.1%		57 113	61 279	-6.8%	83 394	

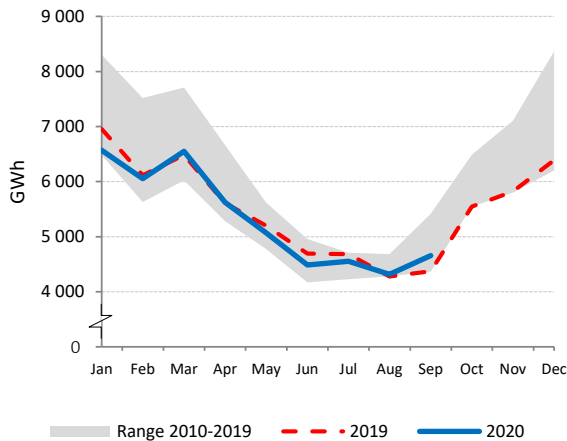
¹ current month to month of last year change

⁴ includes generation from peat

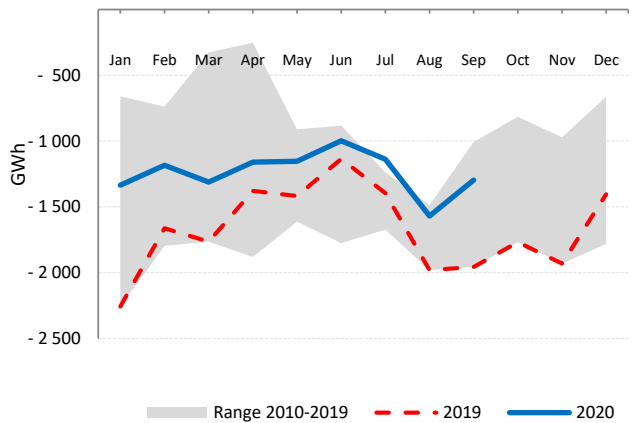
² month-to-month change

³ year-to-date compared to same period last year

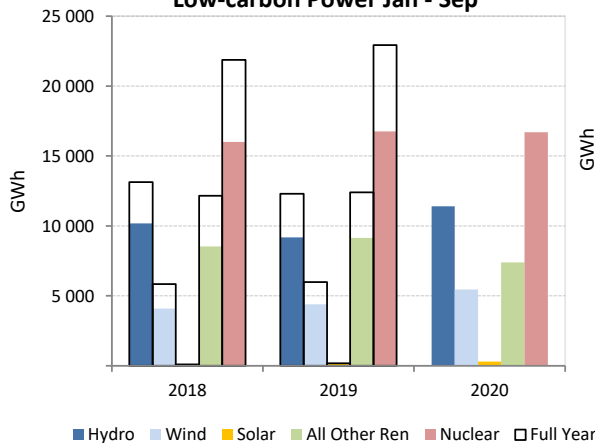
Electricity Production



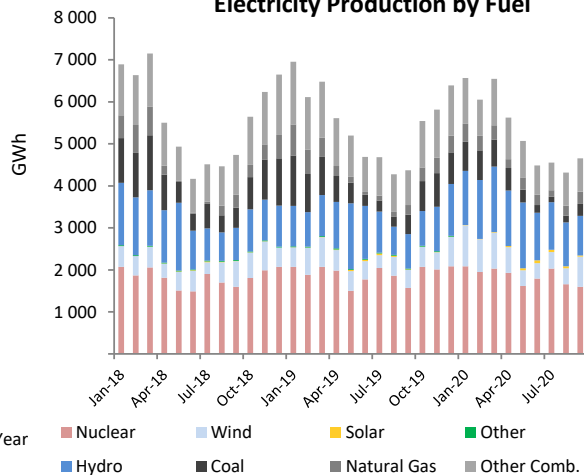
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



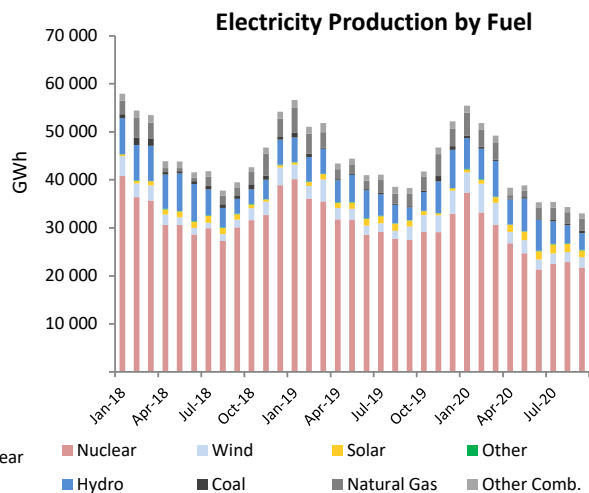
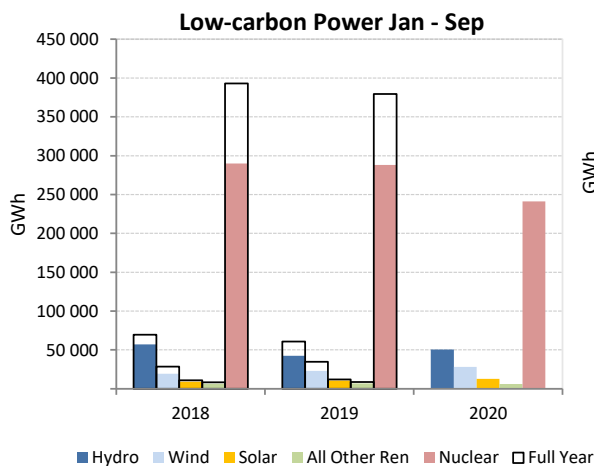
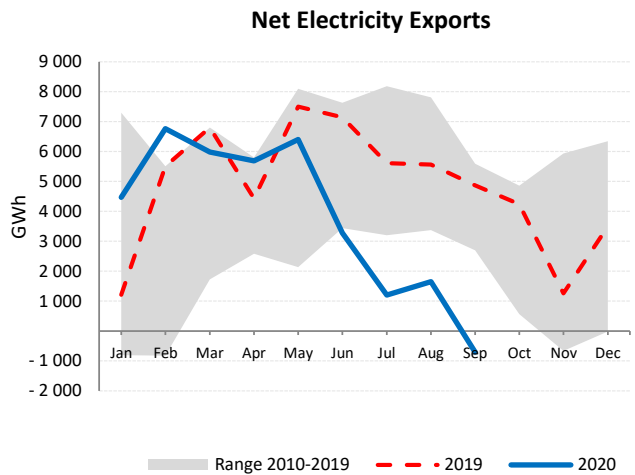
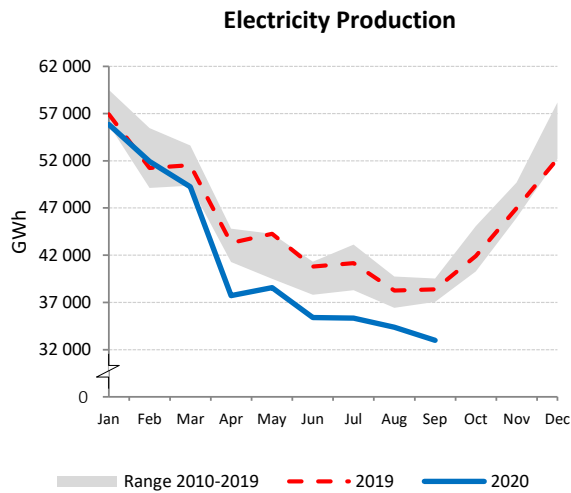
FRANCE

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	4 127	0.7%	8.0%	12.5%	37 763	40 904	-7.7%	58 630	10.7%
Coal	612	161.7%	132.9%	1.9%	2 649	3 004	-22.2%	5 540	1.0%
Oil	495	10.4%	8.0%	1.5%	4 342	4 101	5.9%	5 580	1.0%
Natural Gas	2 448	-8.0%	-0.1%	7.4%	23 680	25 855	-8.4%	37 088	6.8%
Combustible Renewables	412	-24.2%	-7.9%	1.2%	5 631	6 363	-11.5%	8 155	1.5%
Other Combustibles	160	0.7%	8.0%	0.5%	1 460	1 581	-7.7%	2 267	0.4%
Nuclear	21 740	-21.0%	-5.0%	65.9%	241 145	288 182	-16.3%	379 464	69.4%
Hydro	3 449	29.7%	-8.5%	10.5%	50 643	42 454	19.3%	60 819	11.1%
Wind	2 167	-20.8%	4.1%	6.6%	28 316	23 024	23.0%	34 722	6.3%
Solar	1 410	11.3%	-18.1%	4.3%	12 705	10 484	21.2%	12 225	2.2%
Geothermal	9	-2.7%	-	0.0%	85	87	-2.7%	116	0.0%
Other Renewables	39	-	-	0.1%	355	355	-	473	0.1%
Non-Specified	44	-	-	0.1%	395	395	-	527	0.1%
RENEWABLES	7 487	3.2%	-7.2%	22.7%	97 734	82 767	18.1%	116 509	21.3%
NON-RENEWABLES	25 499	-18.1%	-3.0%	77.3%	273 671	323 117	-15.3%	430 466	78.7%
TOTAL NET PRODUCTION	32 986	-14.1%	-4.0%		371 405	405 884	-8.5%	546 975	
+ Imports	3 363	196.5%	54.2%		13 719	9 198	49.2%	15 632	
- Exports	2 659	-55.7%	-30.7%		48 462	57 860	-16.2%	73 299	
= ELECTRICITY SUPPLIED	33 690	0.5%	3.0%		336 663	357 222	-5.8%	489 308	
- Used for pumped storage	442	-21.5%	9.4%		4 469	4 548	-1.7%	6 397	
- T&D Losses	2 391	0.3%	-0.5%		26 348	27 338	-3.6%	38 112	
= ELECTRICITY CONSUMED	30 857	0.9%	3.2%		305 845	325 335	-6.0%	444 799	

¹ current month to month of last year change

² month-to-month change

³ year-to-date compared to same period last year



GERMANY

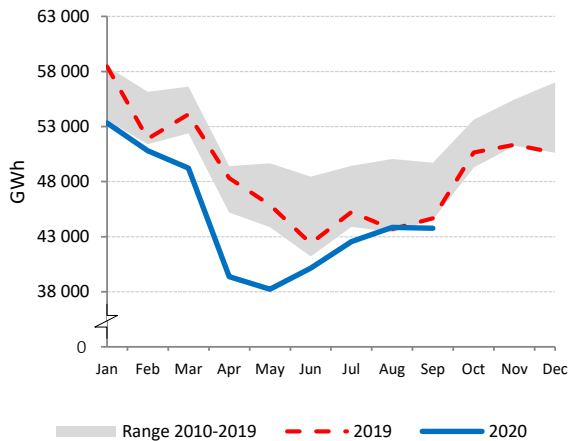
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	24 711	6.1%	6.8%	56.5%	194 895	233 488	-16.5%	318 151	54.2%
Coal	13 250	14.5%	17.0%	30.3%	89 155	126 986	-29.8%	172 439	29.4%
Oil	340	-8.3%	2.3%	0.8%	3 013	3 483	-13.5%	4 725	0.8%
Natural Gas	6 872	-3.9%	-2.5%	15.7%	63 191	63 370	-0.3%	87 812	15.0%
Combustible Renewables	3 780	2.1%	-4.1%	8.6%	35 304	34 916	1.1%	46 897	8.0%
Other Combustibles	469	-6.8%	-3.5%	1.1%	4 232	4 734	-10.6%	6 277	1.1%
Nuclear	5 290	-8.6%	-5.4%	12.1%	45 150	51 268	-11.9%	70 983	12.1%
Hydro	1 930	3.0%	0.4%	4.4%	19 002	19 738	-3.7%	25 800	4.4%
Wind	6 363	-30.1%	-6.1%	14.5%	93 447	86 701	7.8%	123 606	21.0%
Solar	5 378	20.0%	-15.0%	12.3%	47 933	42 535	12.7%	47 517	8.1%
Geothermal	11	9.1%	-7.7%	0.0%	137	128	7.3%	170	0.0%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	78	-20.8%	0.2%	0.2%	686	760	-9.8%	992	0.2%
RENEWABLES	17 461	-8.9%	-8.0%	39.9%	195 823	184 017	6.4%	243 991	41.6%
NON-RENEWABLES	26 299	3.2%	5.8%	60.1%	205 427	250 601	-18.0%	343 228	58.4%
TOTAL NET PRODUCTION	43 760	-2.0%	-0.2%		401 250	434 618	-7.7%	587 219	
+ Imports	3 627	-10.1%	-8.3%		38 265	31 934	19.8%	40 123	
- Exports	4 493	-13.7%	-0.8%		47 094	52 258	-9.9%	72 792	
= ELECTRICITY SUPPLIED	42 894	-1.4%	-0.9%		392 420	414 295	-5.3%	554 550	
- Used for pumped storage	648	-3.6%	-9.3%		6 734	6 073	10.9%	8 178	
- T&D Losses	2 007	2.7%	6.2%		19 412	19 239	0.9%	26 481	
= ELECTRICITY CONSUMED	40 239	-1.5%	-1.0%		366 274	388 982	-5.8%	519 891	

¹ current month to month of last year change

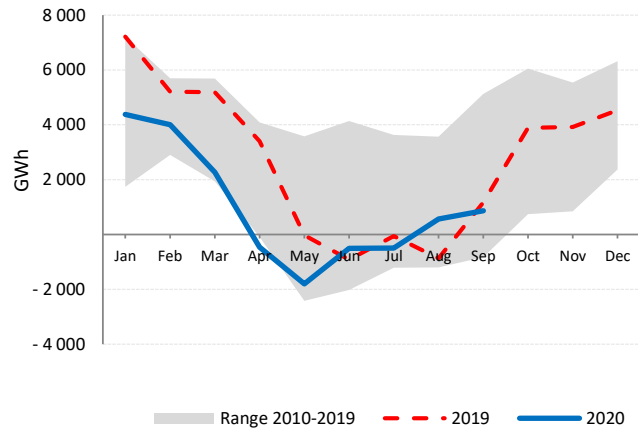
² month-to-month change

³ year-to-date compared to same period last year

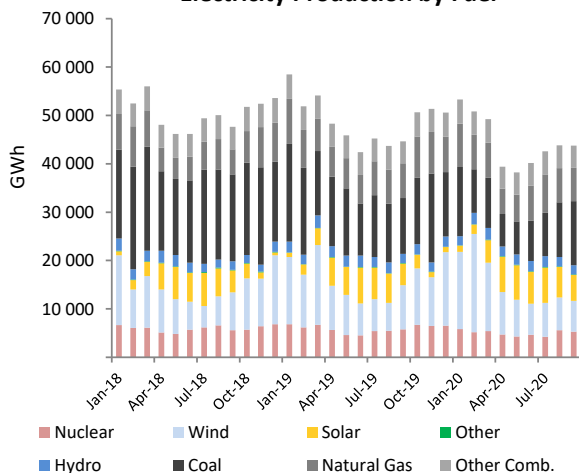
Electricity Production



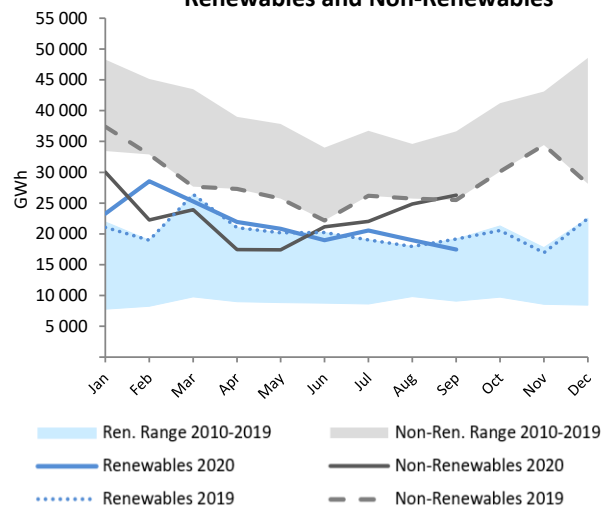
Net Electricity Exports



Electricity Production by Fuel



Renewables and Non-Renewables



GREECE

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	2 276	-9.3%	-10.5%	58.5%	19 621	23 426	-16.2%	30 286	68.7%
Coal	304	-46.9%	-2.0%	7.8%	3 740	7 498	-50.0%	9 782	22.2%
Oil	338	-10.0%	-12.0%	8.7%	2 555	3 178	-19.6%	4 047	9.2%
Natural Gas	1 487	5.0%	-12.1%	38.2%	12 044	11 490	4.8%	14 759	33.5%
Combustible Renewables ⁴	127	13.1%	7.2%	3.3%	1 109	1 054	5.2%	1 429	3.2%
Other Combustibles ⁴	20	-9.3%	-10.6%	0.5%	173	207	-16.2%	267	0.6%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	188	3.4%	-15.6%	4.8%	1 715	2 018	-15.0%	2 539	5.8%
Wind	1 001	70.1%	55.9%	25.7%	6 749	5 439	24.1%	7 278	16.5%
Solar	427	6.1%	-12.0%	11.0%	3 550	3 201	10.9%	3 961	9.0%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	1 744	35.6%	18.7%	44.8%	13 123	11 713	12.0%	15 208	34.5%
NON-RENEWABLES	2 149	-10.3%	-11.4%	55.2%	18 512	22 372	-17.3%	28 856	65.5%
TOTAL NET PRODUCTION	3 893	5.7%	-0.1%		31 636	34 085	-7.2%	44 064	
+ Imports	664	-17.6%	-35.1%		8 057	8 255	-2.4%	11 067	
- Exports	222	109.1%	445.2%		504	895	-43.6%	1 123	
= ELECTRICITY SUPPLIED	4 334	-1.1%	-11.1%		39 188	41 445	-5.4%	54 008	
- Used for pumped storage	3	341.2%	10.0%		79	30	158.7%	56	
- T&D Losses	312	21.7%	3.1%		2 469	2 559	-3.5%	3 434	
= ELECTRICITY CONSUMED	4 018	-2.5%	-12.1%		36 640	38 855	-5.7%	50 518	

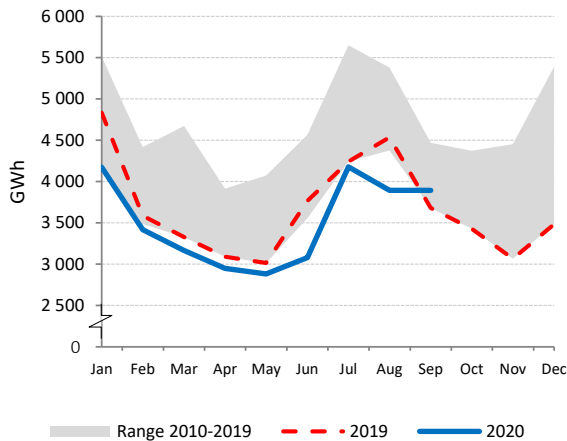
¹ current month to month of last year change

⁴ estimated from annual data

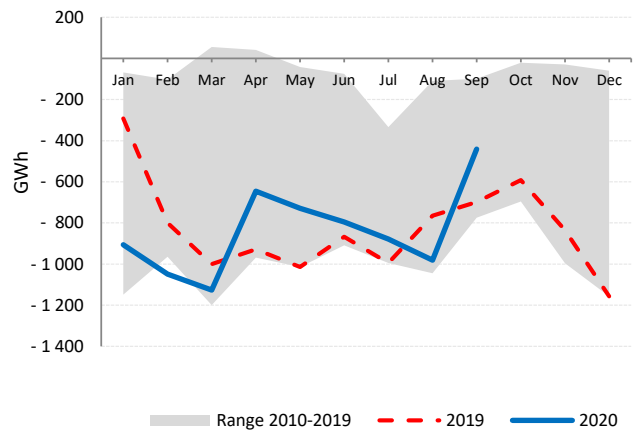
² month-to-month change

³ year-to-date compared to same period last year

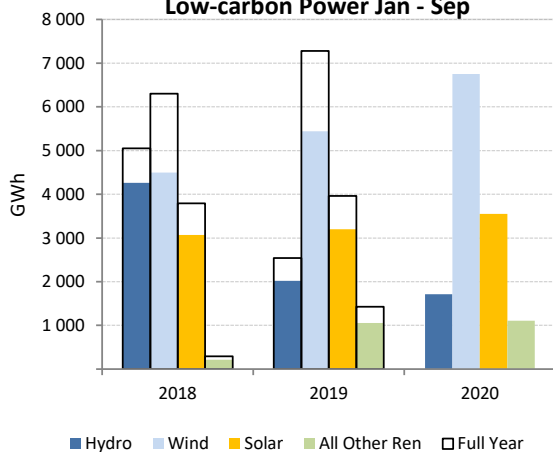
Electricity Production



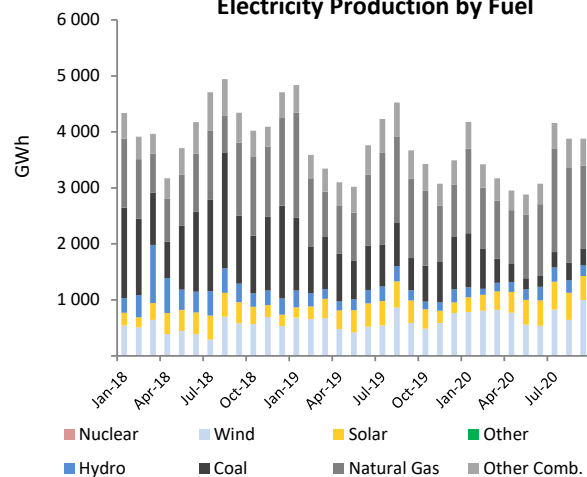
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



HUNGARY

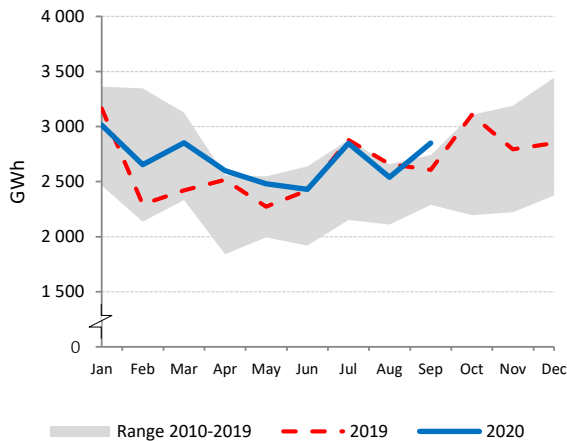
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	1 168	-4.0%	0.9%	41.0%	10 040	10 096	-0.5%	14 066	44.0%
Coal	326	1.5%	0.6%	11.4%	2 615	2 869	-8.9%	3 856	12.1%
Oil	3	-25.0%	23.8%	0.1%	36	51	-30.1%	65	0.2%
Natural Gas	654	-7.2%	1.8%	22.9%	5 866	5 457	7.5%	7 868	24.6%
Combustible Renewables	174	1.0%	-1.4%	6.1%	1 390	1 554	-10.6%	2 049	6.4%
Other Combustibles	12	-22.2%	-10.1%	0.4%	133	165	-19.2%	229	0.7%
Nuclear	1 332	13.8%	34.5%	46.7%	11 266	11 160	0.9%	15 403	48.2%
Hydro	15	53.7%	-32.3%	0.5%	174	157	10.5%	213	0.7%
Wind	35	-3.5%	13.9%	1.2%	476	513	-7.3%	709	2.2%
Solar	293	77.4%	-11.4%	10.3%	2 229	1 223	82.2%	1 480	4.6%
Geothermal	0	-50.4%	-41.9%	0.0%	6	6	-1.1%	9	0.0%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	9	-	-	0.3%	77	77	-	102	0.3%
RENEWABLES	516	34.7%	-7.7%	18.1%	4 275	3 454	23.8%	4 460	13.9%
NON-RENEWABLES	2 334	5.0%	17.9%	81.9%	19 993	19 779	1.1%	27 522	86.1%
TOTAL NET PRODUCTION	2 851	9.4%	12.2%		24 267	23 233	4.5%	31 982	
+ Imports	1 348	-22.3%	-11.3%		14 071	15 306	-8.1%	19 853	
- Exports	624	-25.6%	32.3%		5 693	5 256	8.3%	7 269	
= ELECTRICITY SUPPLIED	3 575	2.1%	-0.4%		32 645	33 283	-1.9%	44 566	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses	228	1.5%	-4.4%		2 276	2 423	-6.1%	3 292	
= ELECTRICITY CONSUMED	3 347	2.1%	-0.1%		30 370	30 861	-1.6%	41 274	

¹ current month to month of last year change

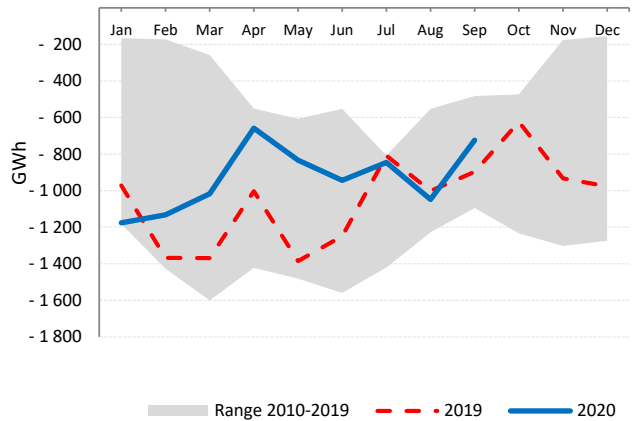
² month-to-month change

³ year-to-date compared to same period last year

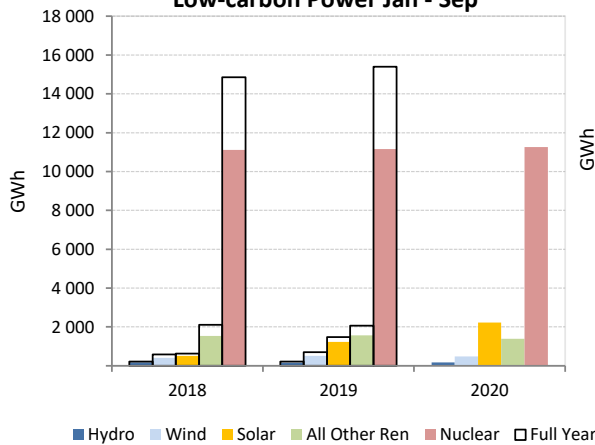
Electricity Production



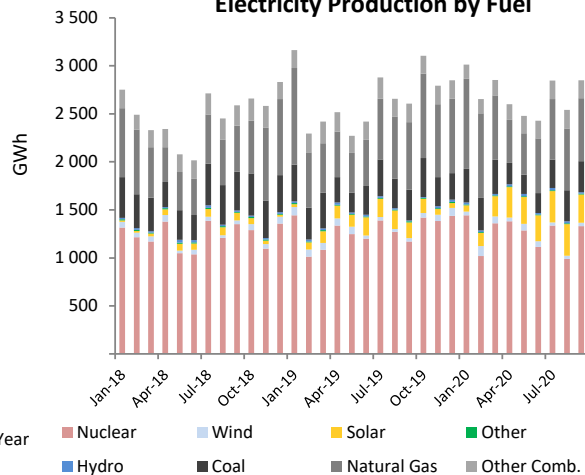
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



ICELAND

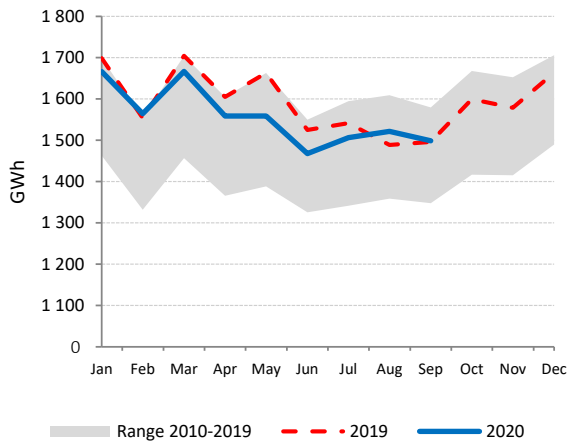
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	0	114.5%	81.0%	0.0%	2	1	132.1%	3	0.0%
Coal	-	-	-	-	-	-	-	-	-
Oil	0	114.5%	81.0%	0.0%	2	1	132.1%	3	0.0%
Natural Gas	-	-	-	-	-	-	-	-	-
Combustible Renewables	-	-	-	-	-	-	-	-	-
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1 070	2.4%	0.1%	71.4%	9 692	10 000	-3.1%	13 329	69.7%
Wind	0	5.9%	77.8%	0.0%	5	5	2.2%	7	0.0%
Solar	-	-	-	-	-	-	-	-	-
Geothermal	429	-5.1%	-5.3%	28.6%	4 311	4 272	0.9%	5 781	30.2%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	1 499	0.2%	-1.5%	100.0%	14 008	14 277	-1.9%	19 117	100.0%
NON-RENEWABLES	0	114.5%	81.0%	0.0%	2	1	132.3%	3	0.0%
TOTAL NET PRODUCTION	1 499	0.2%	-1.5%		14 010	14 278	-1.9%	19 120	
+ Imports	-	-	-	-	-	-	-	-	-
- Exports	-	-	-	-	-	-	-	-	-
= ELECTRICITY SUPPLIED	1 499	0.2%	-1.5%		14 010	14 278	-1.9%	19 120	
- Used for pumped storage	-	-	-	-	-	-	-	-	-
- T&D Losses	43	-1.6%	-0.5%		389	398	-2.2%	531	
= ELECTRICITY CONSUMED	1 456	0.2%	-1.5%		13 622	13 880	-1.9%	18 589	

¹ current month to month of last year change

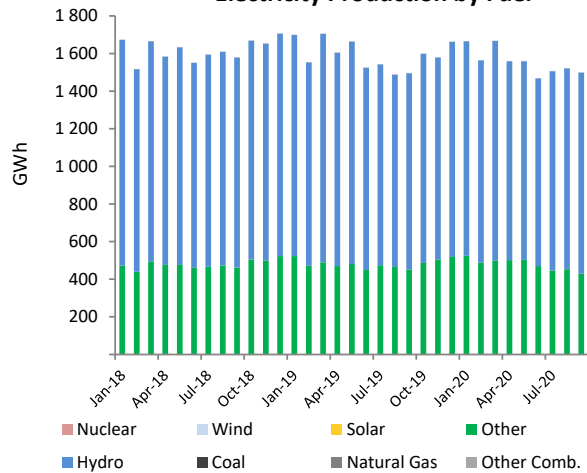
² month-to-month change

³ year-to-date compared to same period last year

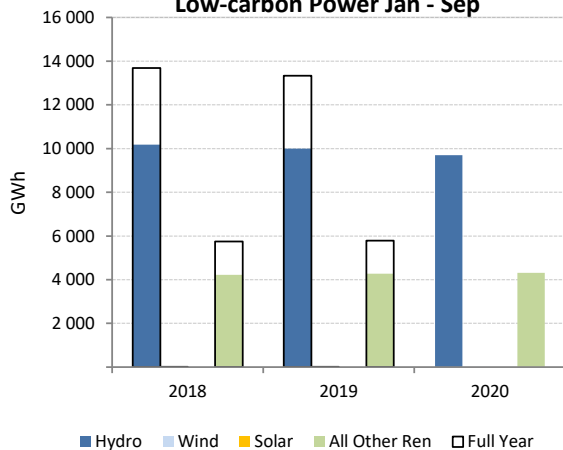
Electricity Production



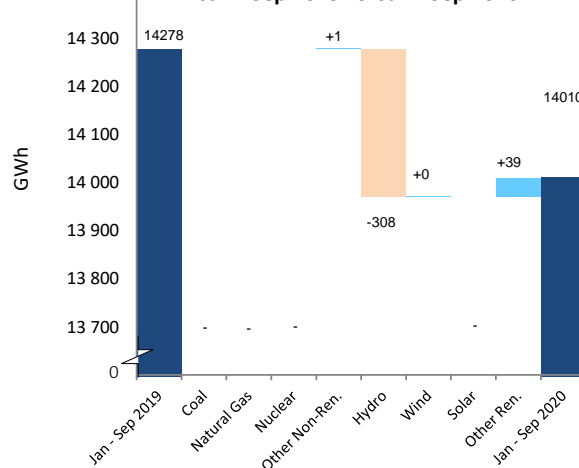
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



IRELAND

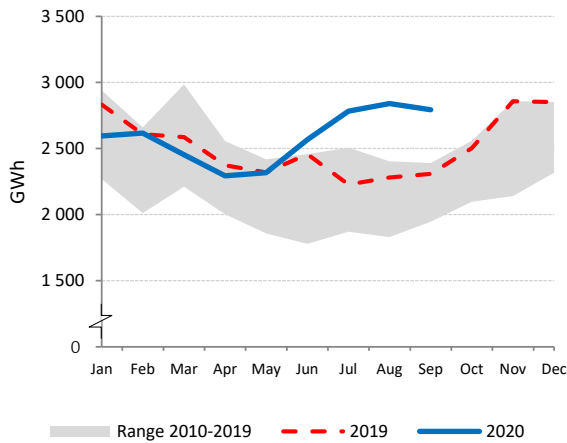
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	1 953	35.6%	-9.3%	69.9%	15 199	14 329	6.1%	19 094	63.2%
Coal	360	115.9%	-12.0%	12.9%	1 996	1 710	16.7%	2 352	7.8%
Oil	69	353.6%	-31.1%	2.5%	357	196	82.5%	271	0.9%
Natural Gas	1 430	21.4%	-8.1%	51.2%	12 005	11 631	3.2%	15 364	50.9%
Combustible Renewables	84	43.5%	1.0%	3.0%	719	592	21.5%	823	2.7%
Other Combustibles	10	-52.5%	85.8%	0.4%	123	201	-38.9%	285	0.9%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	82	-6.6%	-12.0%	2.9%	787	693	13.6%	1 120	3.7%
Wind	756	-3.0%	28.1%	27.1%	7 255	6 956	4.3%	9 974	33.0%
Solar	2	-	-34.6%	0.1%	19	19	-	21	0.1%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	923	-0.4%	20.1%	33.1%	8 780	8 260	6.3%	11 939	39.5%
NON-RENEWABLES	1 870	35.3%	-9.7%	66.9%	14 481	13 738	5.4%	18 271	60.5%
TOTAL NET PRODUCTION	2 793	21.0%	-1.7%		23 261	21 997	5.7%	30 210	
+ Imports	140	-29.5%	56.5%		1 292	1 656	-22.0%	2 180	
- Exports	184	73.1%	36.4%		1 393	1 056	31.9%	1 535	
= ELECTRICITY SUPPLIED	2 748	14.5%	-1.7%		23 160	22 597	2.5%	30 854	
- Used for pumped storage	44	1.5%	-7.6%		416	341	21.9%	478	
- T&D Losses	183	3.0%	2.0%		1 633	1 661	-1.7%	2 274	
= ELECTRICITY CONSUMED	2 521	15.7%	-1.8%		21 111	20 595	2.5%	28 102	

¹ current month to month of last year change

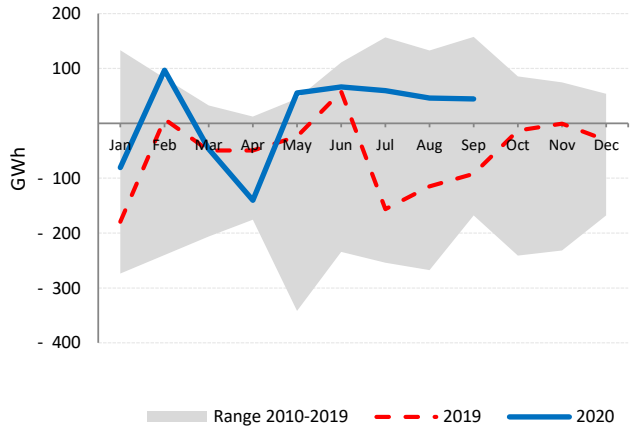
² month-to-month change

³ year-to-date compared to same period last year

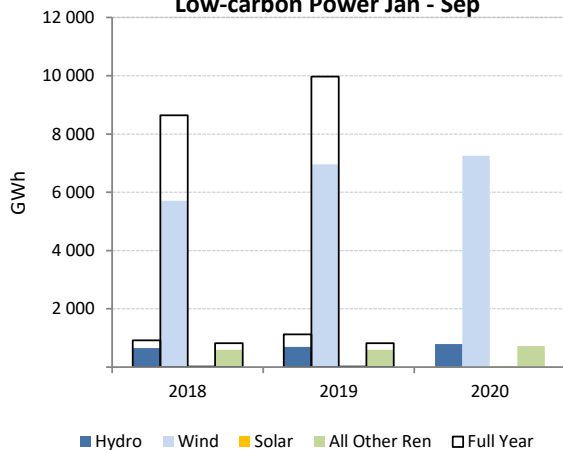
Electricity Production



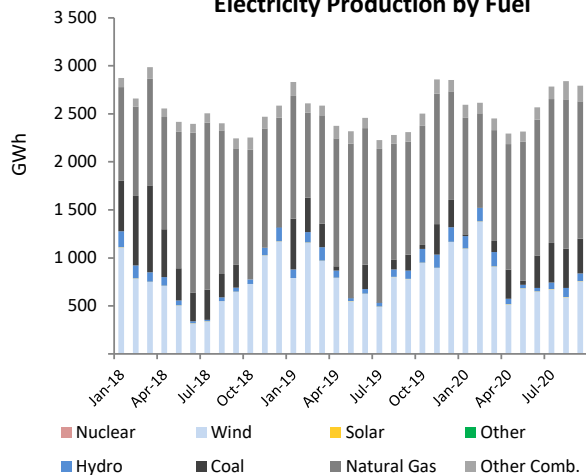
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



ITALY

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	16 241	-0.1%	4.1%	64.0%	128 208	139 974	-8.4%	185 146	65.7%
Coal ⁴	1 649	9.7%	14.2%	6.5%	10 936	13 114	-15.6%	17 134	6.1%
Oil ⁴	911	-0.1%	4.1%	3.6%	7 188	7 848	-8.4%	10 381	3.7%
Natural Gas ⁴	12 017	-0.1%	4.1%	47.3%	94 861	103 567	-8.4%	136 990	48.6%
Combustible Renewables	1 456	-5.7%	-3.5%	5.7%	13 579	13 650	-0.5%	18 269	6.5%
Other Combustibles ⁴	208	-0.1%	4.1%	0.8%	1 643	1 794	-8.4%	2 373	0.8%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	4 957	37.2%	14.4%	19.5%	37 299	34 967	6.7%	46 955	16.7%
Wind	1 354	16.3%	12.3%	5.3%	14 064	14 358	-2.0%	20 054	7.1%
Solar	2 329	5.1%	-17.3%	9.2%	21 474	19 850	8.2%	23 313	8.3%
Geothermal	452	-3.2%	-3.4%	1.8%	4 211	4 257	-1.1%	5 658	2.0%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	51	-	-	0.2%	459	459	-	612	0.2%
RENEWABLES	10 548	17.2%	2.1%	41.6%	90 627	87 084	4.1%	114 249	40.6%
NON-RENEWABLES	14 836	0.5%	4.9%	58.4%	115 088	126 783	-9.2%	167 490	59.4%
TOTAL NET PRODUCTION	25 383	6.8%	3.7%		205 715	213 867	-3.8%	281 738	
+ Imports	2 519	-24.6%	15.2%		27 037	32 243	-16.1%	43 980	
- Exports	458	-21.2%	-30.0%		6 481	4 316	50.2%	5 817	
= ELECTRICITY SUPPLIED	27 444	3.5%	5.5%		226 272	241 793	-6.4%	319 901	
- Used for pumped storage	194	26.0%	26.8%		1 834	1 676	9.4%	2 412	
- T&D Losses ⁵	-	-	-		-	13 955	-	18 470	
= ELECTRICITY CONSUMED	27 250	9.7%	5.4%		224 438	226 162	-0.8%	299 020	

¹ current month to month of last year change

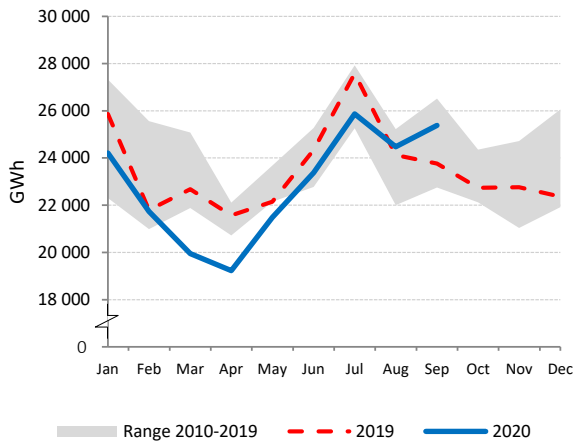
⁴ estimated from annual data

² month-to-month change

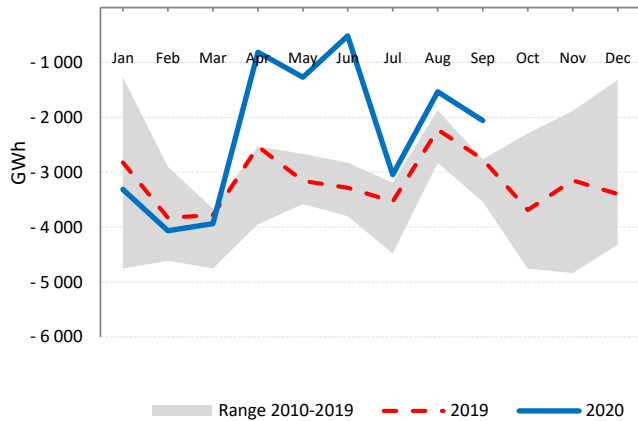
⁵ estimated

³ year-to-date compared to same period last year

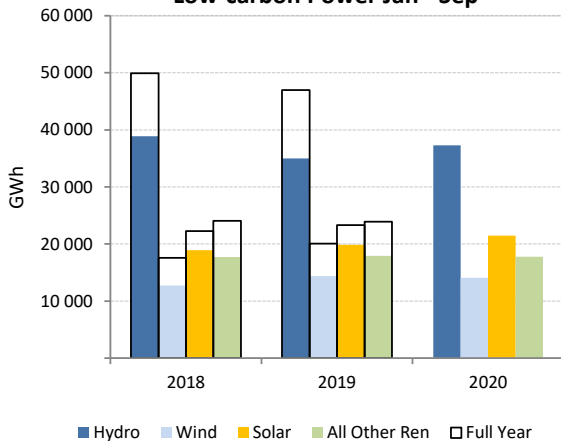
Electricity Production



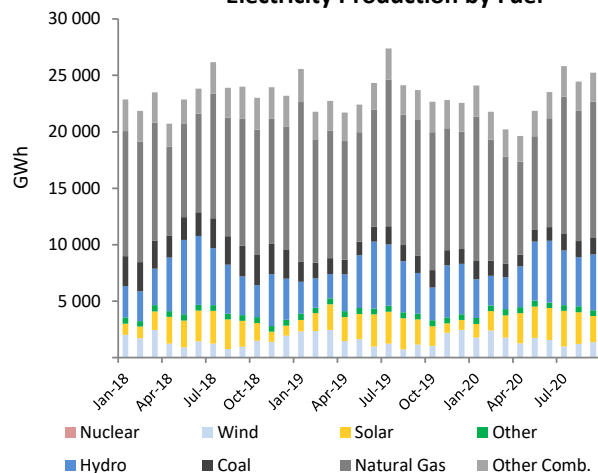
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



JAPAN

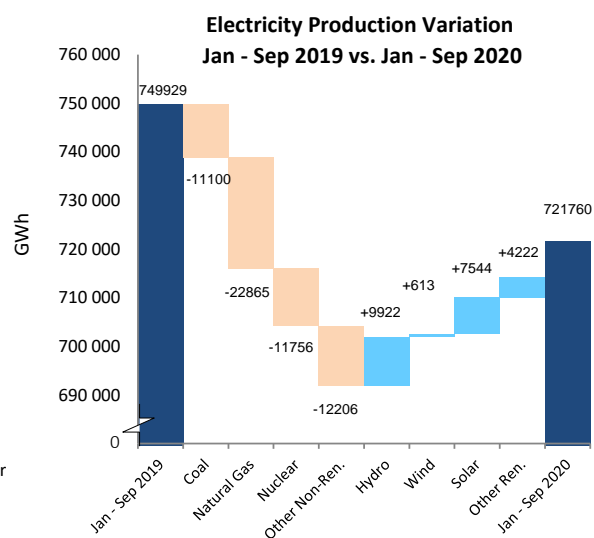
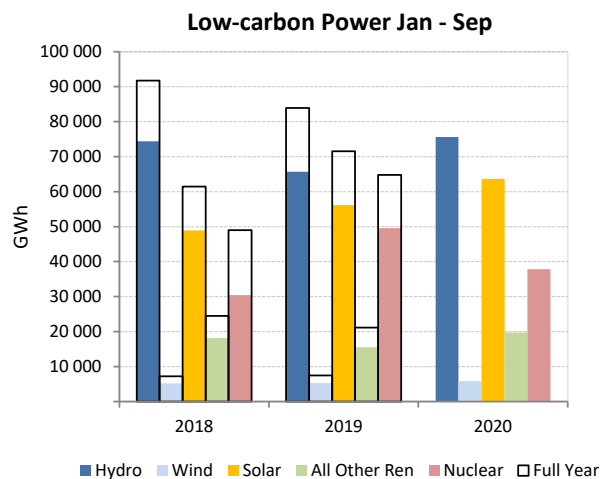
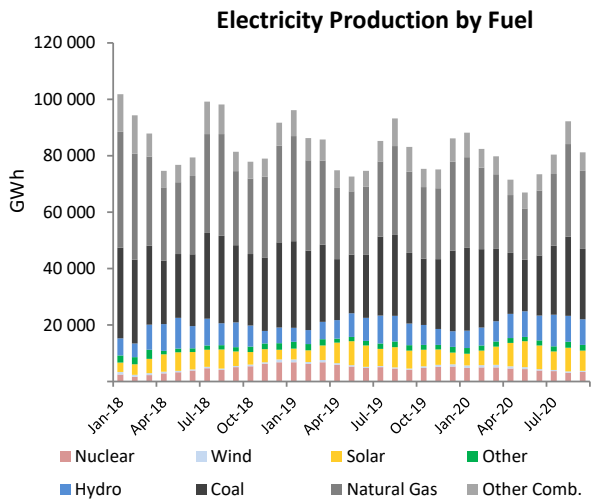
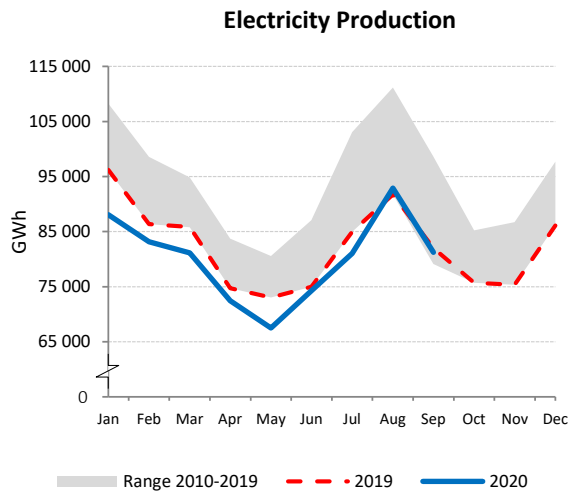
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	59 130	-3.9%	-15.1%	72.8%	522 096	555 950	-6.1%	736 635	74.6%
Coal	24 924	-0.4%	-11.4%	30.7%	227 060	230 703	-2.5%	307 883	31.2%
Oil	2 566	-53.8%	-33.6%	3.2%	26 899	38 582	-30.3%	49 739	5.0%
Natural Gas	27 604	-4.1%	-15.9%	34.0%	234 682	257 547	-8.9%	339 604	34.4%
Combustible Renewables	2 104	46.4%	-2.5%	2.6%	17 880	13 736	30.2%	18 703	1.9%
Other Combustibles	1 932	6.6%	-5.9%	2.4%	15 574	15 382	1.3%	20 706	2.1%
Nuclear	3 366	-19.5%	8.3%	4.1%	37 820	49 576	-23.7%	64 805	6.6%
Hydro	9 157	19.8%	-0.3%	11.3%	75 620	65 698	15.1%	83 965	8.5%
Wind	420	0.1%	-1.0%	0.5%	5 842	5 230	11.7%	7 481	0.8%
Solar	7 170	12.1%	-14.6%	8.8%	63 685	56 141	13.4%	71 534	7.2%
Geothermal	202	-4.1%	-2.4%	0.2%	1 876	1 798	4.4%	2 445	0.2%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	1 784	7.7%	-6.0%	2.2%	14 821	15 536	-4.6%	20 245	2.1%
RENEWABLES	19 053	18.3%	-6.5%	23.5%	164 904	142 603	15.6%	184 128	18.7%
NON-RENEWABLES	62 176	-5.7%	-14.3%	76.5%	556 856	607 326	-8.3%	802 982	81.3%
TOTAL NET PRODUCTION	81 230	-1.0%	-12.6%		721 760	749 929	-3.8%	987 110	
+ Imports	-	-	-		-	-	-	-	
- Exports	-	-	-		-	-	-	-	
= ELECTRICITY SUPPLIED	81 230	-1.0%	-12.6%		721 760	749 929	-3.8%	987 110	
- Used for pumped storage ⁴	1 231	11.4%	-17.0%		9 234	8 056	14.6%	10 554	
- T&D Losses ⁴	3 663	-0.9%	-12.5%		32 520	33 457	-2.8%	44 143	
= ELECTRICITY CONSUMED	76 336	-1.2%	-12.5%		680 007	708 415	-4.0%	932 413	

¹ current month to month of last year change

September 2020 is estimated by the IEA Secretariat

² month-to-month change

³ year-to-date compared to same period last year

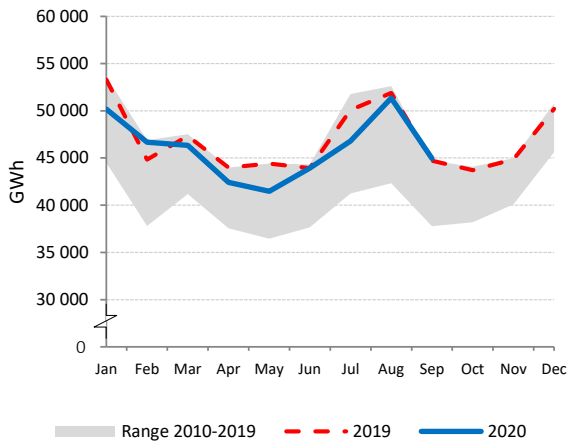


KOREA

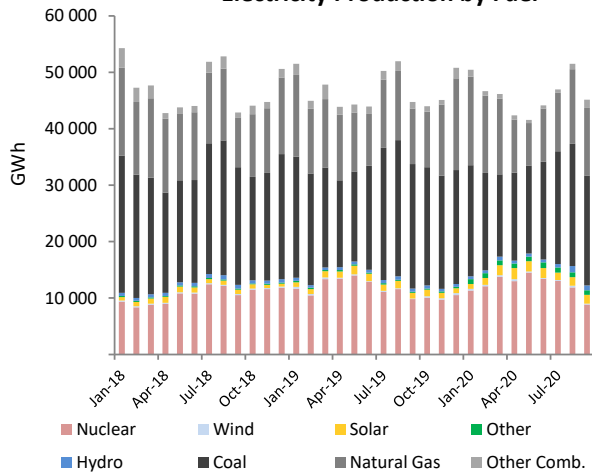
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	32 706	-0.9%	-8.4%	72.8%	272 636	297 423	-8.3%	399 842	71.0%
Coal	19 295	-12.5%	-11.1%	42.9%	160 170	179 407	-10.2%	239 517	42.5%
Oil	743	112.1%	77.0%	1.7%	3 252	6 915	-53.0%	9 054	1.6%
Natural Gas	11 954	21.7%	-9.5%	26.6%	104 659	103 527	1.1%	142 204	25.2%
Combustible Renewables	655	-13.7%	30.1%	1.5%	4 069	7 043	-42.2%	8 354	1.5%
Other Combustibles	58	-0.9%	-8.4%	0.1%	486	530	-8.3%	713	0.1%
Nuclear	8 835	-10.0%	-25.8%	19.7%	111 822	108 361	3.2%	138 679	24.6%
Hydro	877	57.0%	-18.1%	2.0%	5 842	4 718	23.8%	6 202	1.1%
Wind	190	47.0%	-25.2%	0.4%	2 203	1 858	18.5%	2 679	0.5%
Solar	1 537	59.3%	0.5%	3.4%	13 784	9 996	37.9%	13 017	2.3%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	58	37.1%	2.5%	0.1%	449	357	25.9%	474	0.1%
Non-Specified	745	274.6%	-10.7%	1.7%	7 356	1 789	311.2%	2 385	0.4%
RENEWABLES	3 318	35.2%	-2.8%	7.4%	26 347	23 973	9.9%	30 726	5.5%
NON-RENEWABLES	41 631	-1.5%	-13.1%	92.6%	387 745	400 529	-3.2%	532 552	94.5%
TOTAL NET PRODUCTION	44 949	0.5%	-12.5%		414 091	424 501	-2.5%	563 278	
+ Imports	-	-	-		-	-	-	-	
- Exports	-	-	-		-	-	-	-	
= ELECTRICITY SUPPLIED	44 949	0.5%	-12.5%		414 091	424 501	-2.5%	563 278	
- Used for pumped storage ⁴	331	-16.3%	-7.7%		3 301	3 454	-4.4%	4 588	
- T&D Losses ⁴	1 516	0.5%	-12.5%		13 968	14 319	-2.5%	19 000	
= ELECTRICITY CONSUMED	43 102	0.7%	-12.5%		396 822	406 728	-2.4%	539 690	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

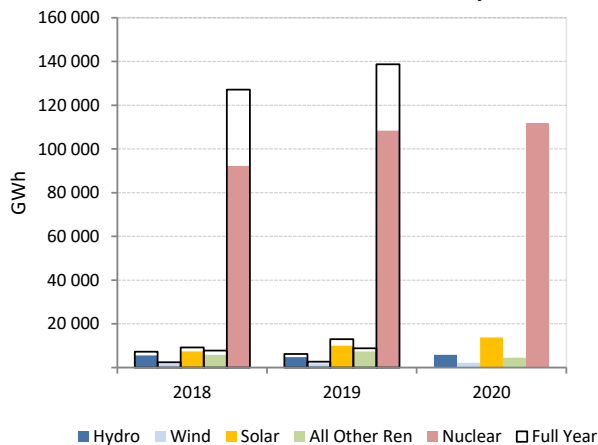
Electricity Production



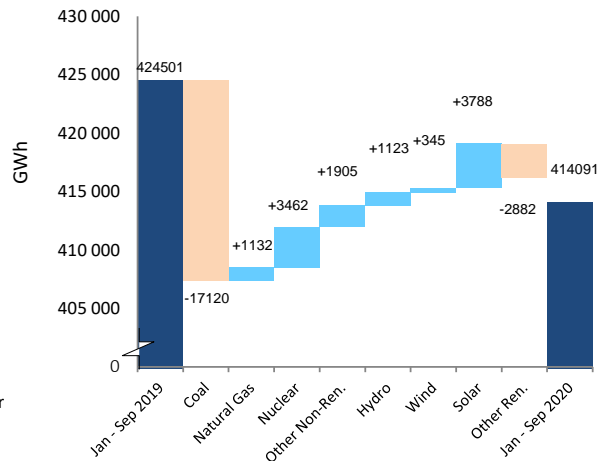
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020

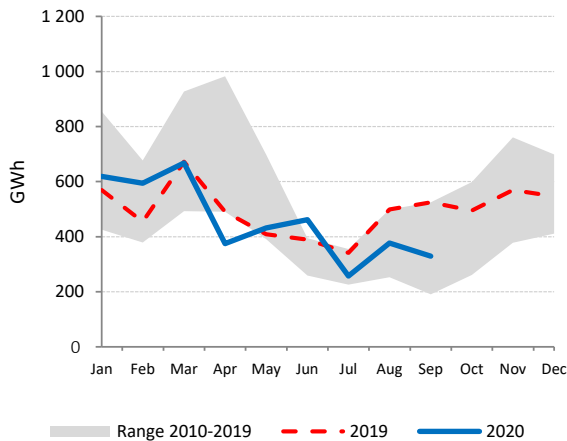


LATVIA

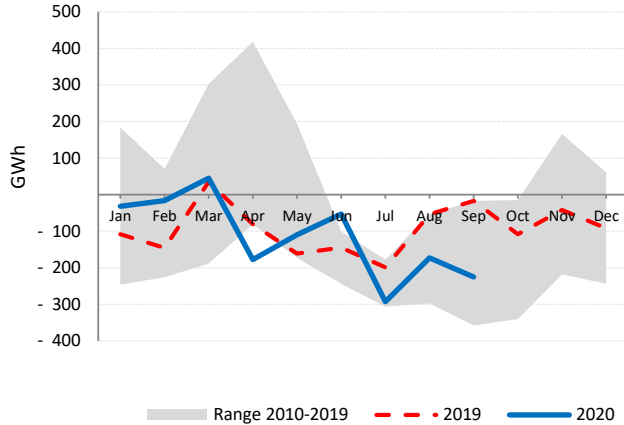
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	205	-52.9%	-31.0%	62.2%	1 836	2 845	-35.5%	3 711	62.2%
Coal	0	-	-	-	0	0	-	0	0.0%
Oil	-	-	-	-	-	-	-	-	-
Natural Gas	148	-60.3%	-37.9%	44.9%	1 250	2 240	-44.2%	2 886	48.4%
Combustible Renewables	57	-8.1%	-3.4%	17.4%	586	605	-3.2%	825	13.8%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	110	42.9%	46.7%	33.4%	2 145	1 396	53.7%	2 096	35.2%
Wind	14	7.7%	180.0%	4.3%	130	107	21.5%	152	2.6%
Solar	0	-	-27.3%	0.1%	3	3	-	3	0.1%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	182	19.0%	30.0%	55.1%	2 864	2 111	35.7%	3 076	51.6%
NON-RENEWABLES	148	-60.3%	-37.9%	44.9%	1 250	2 240	-44.2%	2 886	48.4%
TOTAL NET PRODUCTION	329	-37.3%	-12.8%		4 114	4 351	-5.4%	5 962	
+ Imports	439	41.6%	31.4%		3 183	3 744	-15.0%	4 611	
- Exports	214	-27.0%	32.9%		2 148	2 868	-25.1%	3 493	
= ELECTRICITY SUPPLIED	554	2.3%	0.7%		5 149	5 227	-1.5%	7 080	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses ⁴	31	-8.0%	8.0%		295	327	-9.9%	427	
= ELECTRICITY CONSUMED	523	2.9%	0.3%		4 854	4 900	-0.9%	6 653	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

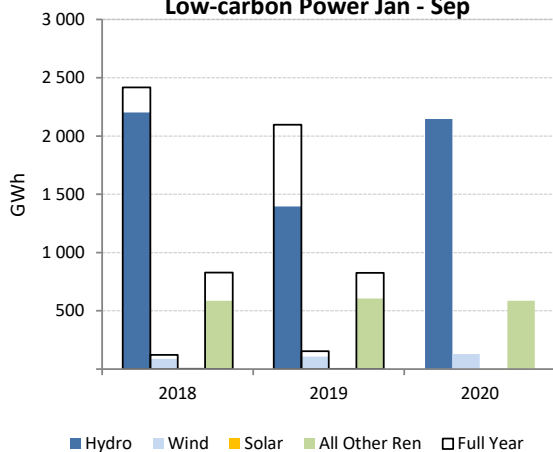
Electricity Production



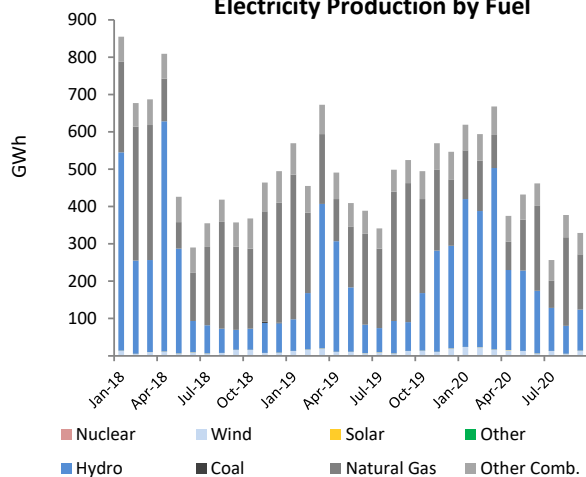
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



LITHUANIA

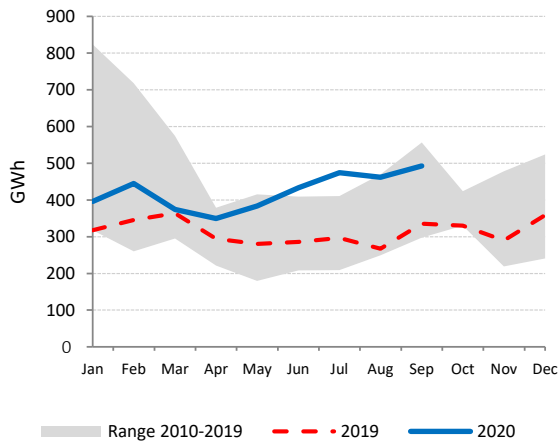
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	257	183.8%	-13.5%	52.2%	1 660	760	118.5%	1 050	27.9%
Coal	-	-	-	-	-	-	-	-	-
Oil	6	-3.2%	-3.6%	1.2%	64	38	68.7%	59	1.6%
Natural Gas	208	405.6%	-18.1%	42.3%	1 153	345	234.2%	455	12.1%
Combustible Renewables	36	-2.5%	1.5%	7.3%	387	321	20.6%	463	12.3%
Other Combustibles	7	8.3%	438.8%	1.4%	55	55	-1.1%	74	2.0%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	87	-11.2%	-2.9%	17.7%	806	727	11.0%	927	24.6%
Wind	121	2.8%	164.3%	24.7%	1 115	1 058	5.4%	1 490	39.6%
Solar	9	12.8%	-18.6%	1.8%	77	78	-0.8%	84	2.2%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	18	-12.7%	-1.6%	3.7%	152	164	-7.3%	213	5.7%
RENEWABLES	253	-2.9%	39.3%	51.4%	2 386	2 184	9.3%	2 964	78.7%
NON-RENEWABLES	239	221.6%	-14.6%	48.6%	1 424	602	136.4%	801	21.3%
TOTAL NET PRODUCTION	493	46.9%	6.6%		3 811	2 787	36.8%	3 765	
+ Imports	948	-8.1%	-3.1%		9 012	9 847	-8.5%	13 268	
- Exports	382	33.0%	3.8%		3 257	2 925	11.4%	3 924	
= ELECTRICITY SUPPLIED	1 059	-2.0%	-1.3%		9 566	9 709	-1.5%	13 108	
- Used for pumped storage	100	-14.1%	-6.2%		786	634	23.9%	810	
- T&D Losses	59	-8.8%	-13.2%		690	684	0.9%	886	
= ELECTRICITY CONSUMED	900	0.1%	0.2%		8 090	8 392	-3.6%	11 412	

¹ current month to month of last year change

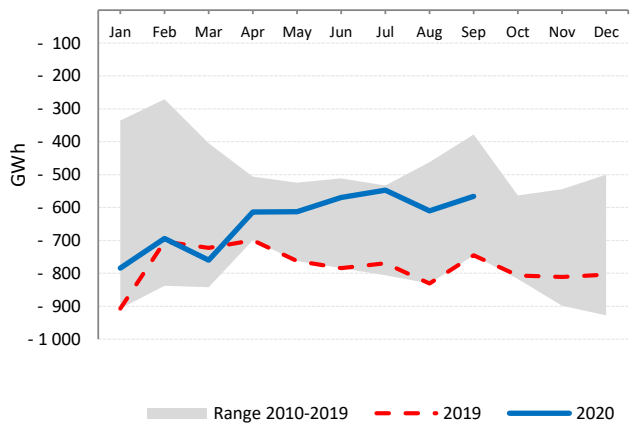
² month-to-month change

³ year-to-date compared to same period last year

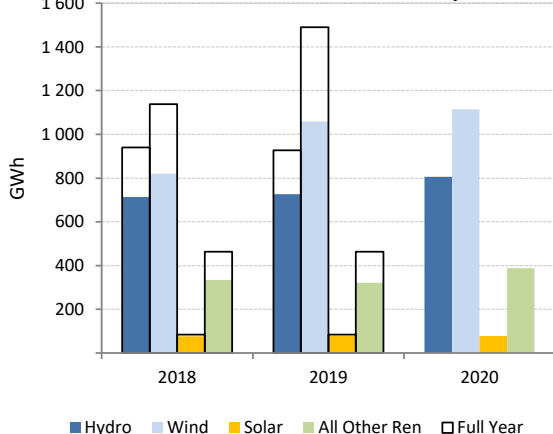
Electricity Production



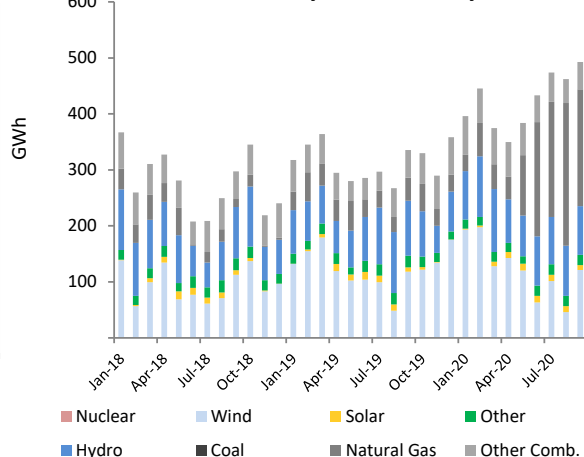
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel

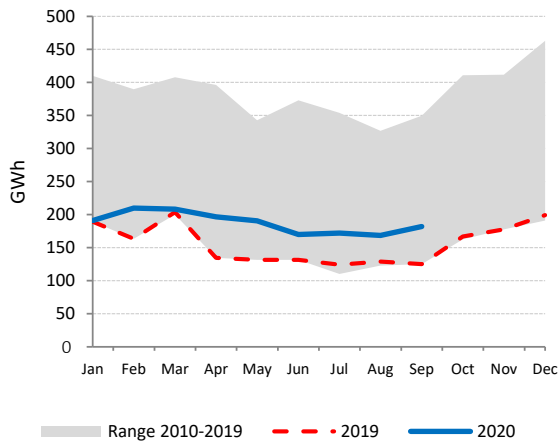


LUXEMBOURG

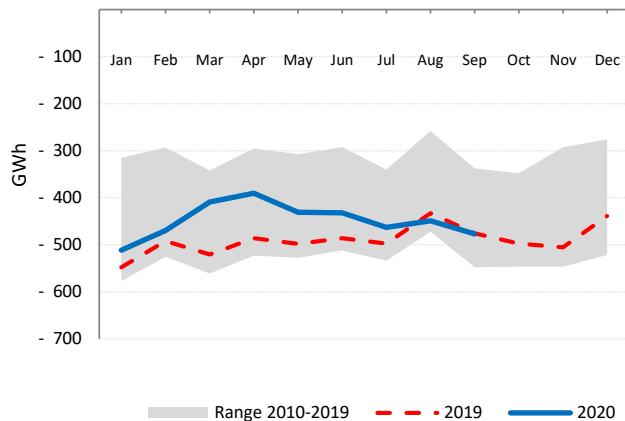
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	40	1.5%	-1.7%	21.8%	434	366	18.7%	528	28.1%
Coal	-	-	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-	-	-
Natural Gas	7	-14.9%	13.5%	3.8%	112	134	-16.2%	185	9.8%
Combustible Renewables	29	11.6%	2.0%	15.9%	271	177	52.8%	268	14.3%
Other Combustibles	4	-23.6%	-35.0%	2.1%	52	55	-6.3%	75	4.0%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	97	79.4%	16.6%	53.3%	821	656	25.2%	938	50.0%
Wind	25	27.5%	36.6%	13.7%	248	192	29.3%	281	15.0%
Solar	20	63.7%	-23.5%	11.2%	187	119	56.3%	130	6.9%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	171	52.9%	9.5%	94.0%	1 526	1 144	33.4%	1 617	86.2%
NON-RENEWABLES	11	-18.2%	-10.5%	6.0%	164	189	-13.3%	260	13.8%
TOTAL NET PRODUCTION	182	45.4%	8.0%		1 690	1 333	26.8%	1 877	
+ Imports	590	11.5%	7.7%		4 829	5 126	-5.8%	6 818	
- Exports	113	112.1%	14.4%		796	689	15.6%	939	
= ELECTRICITY SUPPLIED	659	9.7%	6.7%		5 723	5 770	-0.8%	7 756	
- Used for pumped storage	133	71.8%	16.4%		1 072	853	25.6%	1 203	
- T&D Losses	13	0.3%	4.8%		110	117	-5.6%	156	
= ELECTRICITY CONSUMED	514	0.5%	4.5%		4 541	4 800	-5.4%	6 396	

¹ current month to month of last year change
² month-to-month change
³ year-to-date compared to same period last year

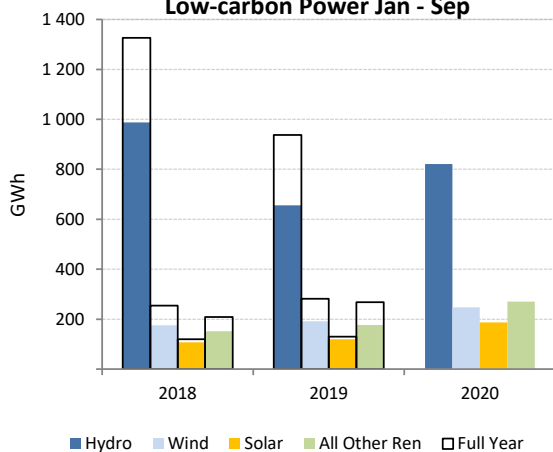
Electricity Production



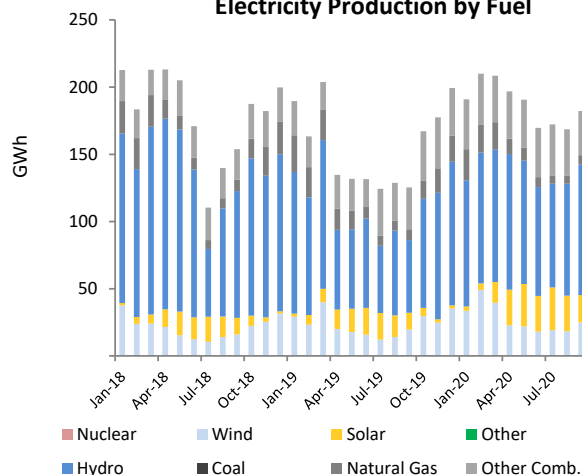
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



MEXICO

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	19 891	-7.4%	-14.7%	76.9%	176 778	194 881	-9.3%	252 920	79.9%
Coal	1 056	-61.7%	4.9%	4.1%	12 857	23 230	-44.7%	28 131	8.9%
Oil ⁴	2 723	0.6%	-15.6%	10.5%	23 702	24 820	-4.5%	32 503	10.3%
Natural Gas ⁴	15 873	0.6%	-15.6%	61.4%	138 144	144 659	-4.5%	189 440	59.9%
Combustible Renewables ⁴	199	0.6%	-15.6%	0.8%	1 729	1 810	-4.5%	2 371	0.7%
Other Combustibles ⁴	40	0.6%	-15.6%	0.2%	346	362	-4.5%	474	0.1%
Nuclear	513	-53.6%	-32.3%	2.0%	8 796	7 851	12.0%	11 111	3.5%
Hydro	2 994	71.7%	-1.8%	11.6%	20 830	19 379	7.5%	23 713	7.5%
Wind	1 233	3.3%	-21.7%	4.8%	13 882	12 295	12.9%	16 763	5.3%
Solar	870	47.1%	-9.7%	3.4%	7 839	4 829	62.3%	6 544	2.1%
Geothermal	355	-16.0%	-6.4%	1.4%	3 725	4 087	-8.9%	5 330	1.7%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	5 651	36.2%	-8.9%	21.9%	48 004	42 400	13.2%	54 720	17.3%
NON-RENEWABLES	20 206	-9.8%	-15.2%	78.1%	183 846	200 922	-8.5%	261 660	82.7%
TOTAL NET PRODUCTION	25 857	-2.6%	-13.9%		231 850	243 323	-4.7%	316 381	
+ Imports	43	-66.2%	-18.8%		346	1 452	-76.2%	1 590	
- Exports	27	-36.3%	-10.6%		298	877	-66.0%	963	
= ELECTRICITY SUPPLIED	25 874	-2.8%	-13.9%		231 898	243 899	-4.9%	317 008	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses ⁵	3 553	-2.9%	-13.9%		31 852	33 578	-5.1%	43 619	
= ELECTRICITY CONSUMED	22 321	-2.8%	-13.9%		200 046	210 321	-4.9%	273 389	

¹ current month to month of last year change

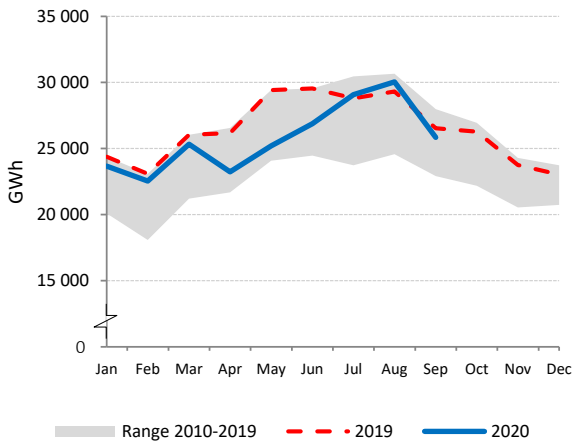
⁴ estimated from annual data

² month-to-month change

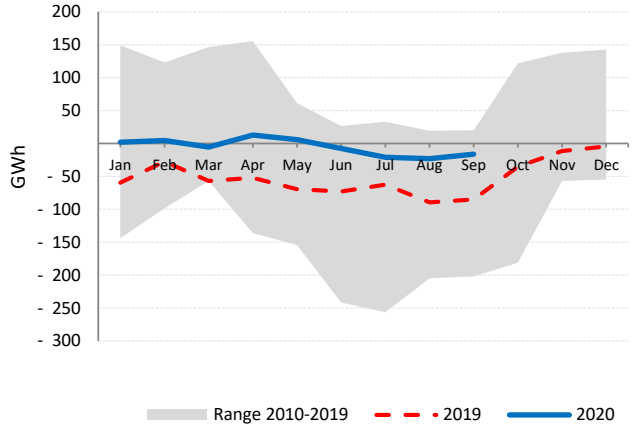
⁵ estimated

³ year-to-date compared to same period last year

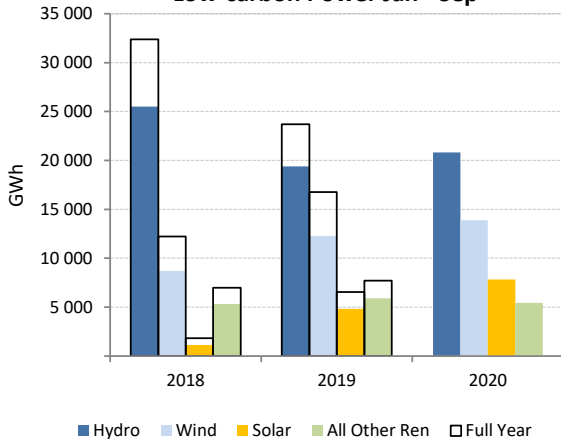
Electricity Production



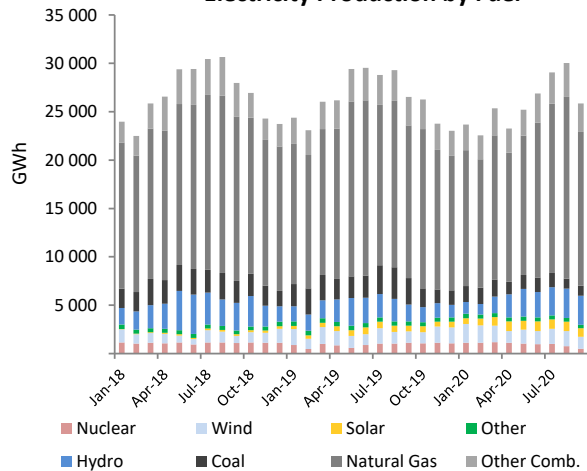
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel

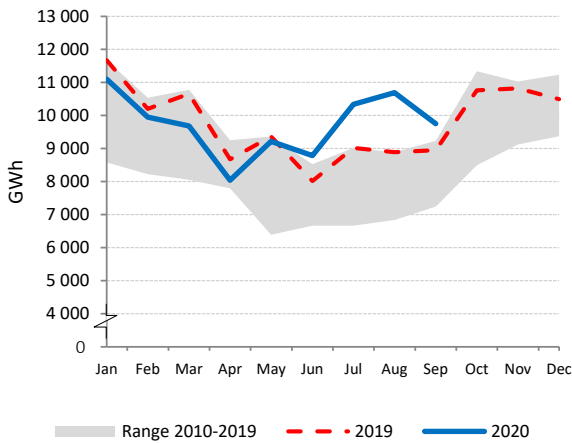


NETHERLANDS

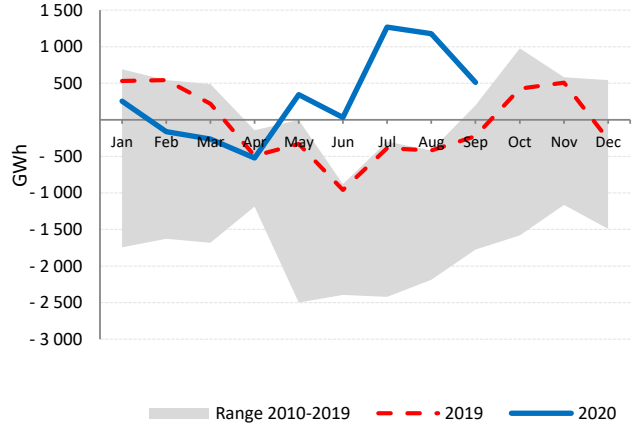
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	7 667	7.0%	-8.8%	78.6%	67 317	69 645	-3.3%	96 489	82.1%
Coal	1 152	110.6%	93.9%	11.8%	6 354	13 402	-52.6%	19 274	16.4%
Oil	77	-8.6%	-10.3%	0.8%	902	966	-6.6%	1 353	1.2%
Natural Gas	5 629	-8.8%	-17.3%	57.7%	52 944	50 396	5.1%	68 634	58.4%
Combustible Renewables	679	157.9%	-8.7%	7.0%	5 748	3 535	62.6%	5 413	4.6%
Other Combustibles	130	24.7%	-28.8%	1.3%	1 369	1 346	1.7%	1 815	1.5%
Nuclear	342	0.1%	-2.6%	3.5%	2 889	2 673	8.1%	3 749	3.2%
Hydro	1	31.6%	764.1%	0.0%	34	53	-35.8%	74	0.1%
Wind	967	4.1%	12.6%	9.9%	9 769	8 010	22.0%	11 508	9.8%
Solar	732	57.4%	-28.8%	7.5%	7 148	4 656	53.5%	5 159	4.4%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	46	-	-	0.5%	411	411	-	547	0.5%
RENEWABLES	2 379	43.5%	-9.6%	24.4%	22 699	16 254	39.6%	22 155	18.9%
NON-RENEWABLES	7 375	1.1%	-8.5%	75.6%	64 869	69 193	-6.2%	95 371	81.1%
TOTAL NET PRODUCTION	9 754	9.0%	-8.8%		87 568	85 448	2.5%	117 526	
+ Imports	1 427	-12.8%	28.7%		14 414	15 718	-8.3%	20 403	
- Exports	1 938	37.4%	-15.2%		17 056	14 194	20.2%	19 548	
= ELECTRICITY SUPPLIED	9 242	0.7%	-2.9%		84 926	86 972	-2.4%	118 381	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses ⁴	400	-5.2%	2.9%		3 891	3 972	-2.0%	5 394	
= ELECTRICITY CONSUMED	8 841	1.0%	-3.1%		81 035	83 000	-2.4%	112 987	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

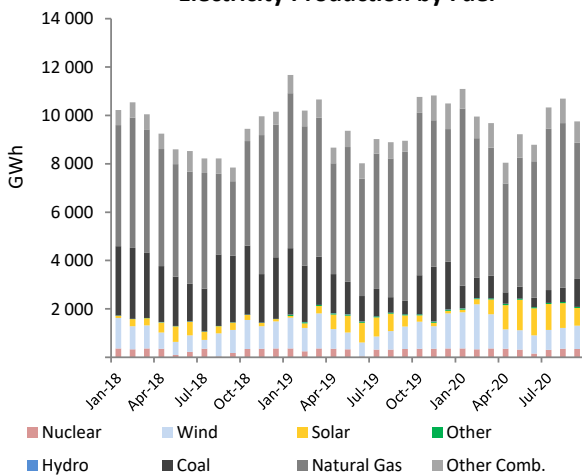
Electricity Production



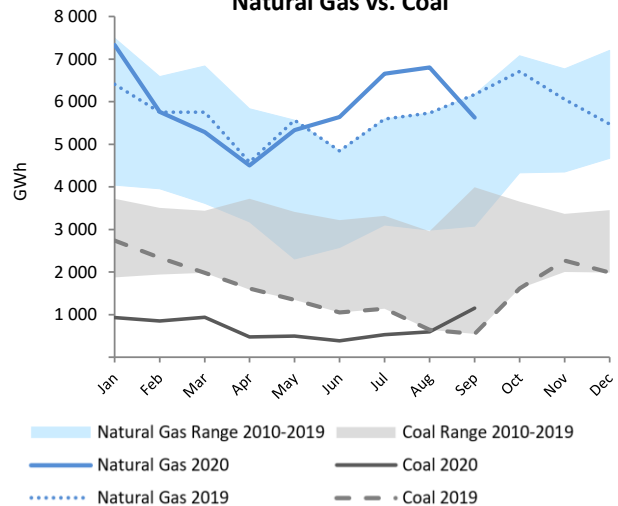
Net Electricity Exports



Electricity Production by Fuel



Natural Gas vs. Coal



NEW ZEALAND

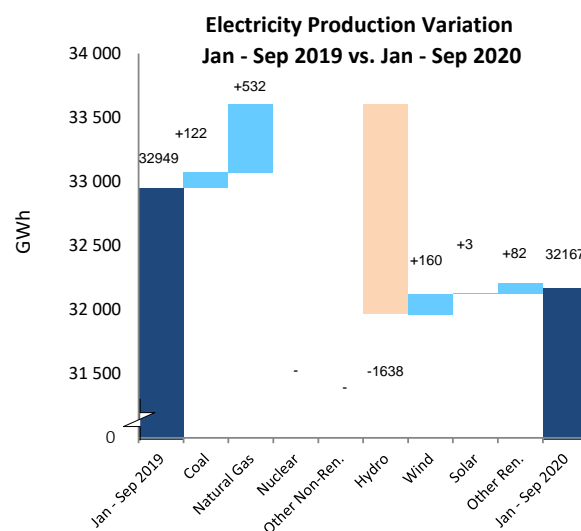
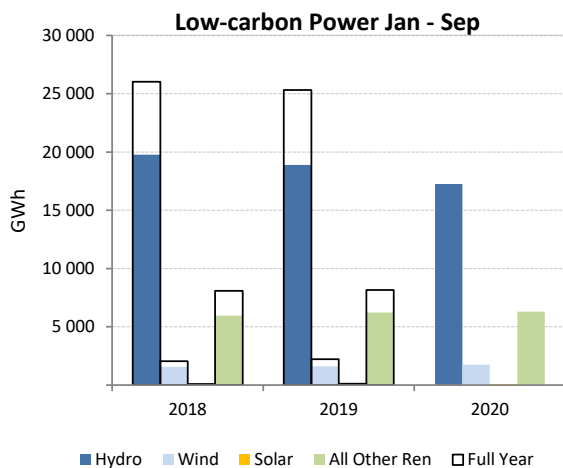
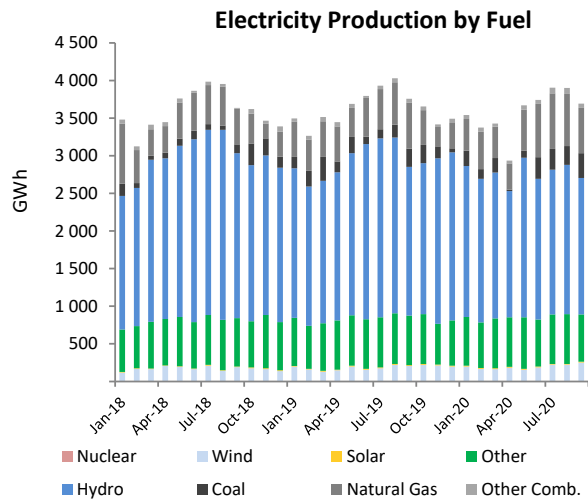
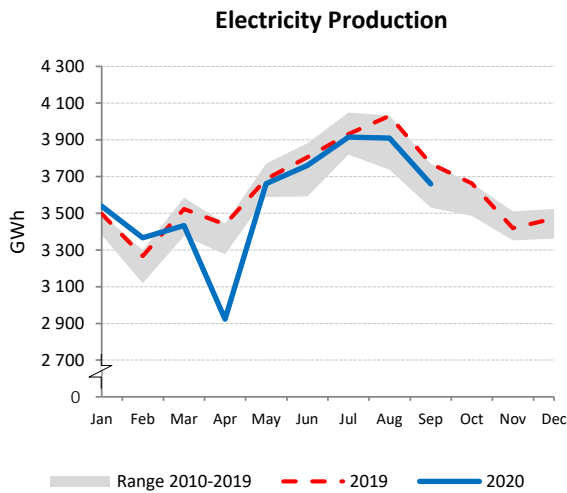
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	956	4.4%	-7.3%	26.1%	7 234	6 552	10.4%	8 192	18.8%
Coal	296	23.5%	17.9%	8.1%	1 757	1 677	5.8%	2 122	4.9%
Oil	-	-	-	-	-	-	-	-	-
Natural Gas	603	-2.1%	-13.0%	16.5%	4 968	4 436	12.0%	5 495	12.6%
Combustible Renewables	57	15.5%	-25.8%	1.6%	509	438	16.1%	575	1.3%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	1 814	-8.3%	-8.6%	49.6%	17 243	18 881	-8.7%	25 321	58.2%
Wind	253	22.9%	12.7%	6.9%	1 759	1 599	10.0%	2 232	5.1%
Solar	10	-12.9%	-0.3%	0.3%	94	91	3.0%	126	0.3%
Geothermal	624	-4.7%	-4.9%	17.0%	5 802	5 791	0.2%	7 586	17.4%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	4	-	-	0.1%	34	34	-	45	0.1%
RENEWABLES	2 757	-4.9%	-6.6%	75.3%	25 408	26 801	-5.2%	35 840	82.4%
NON-RENEWABLES	903	3.7%	-5.8%	24.7%	6 759	6 147	9.9%	7 663	17.6%
TOTAL NET PRODUCTION	3 660	-2.9%	-6.4%		32 167	32 949	-2.4%	43 503	
+ Imports	-	-	-	-	-	-	-	-	-
- Exports	-	-	-	-	-	-	-	-	-
= ELECTRICITY SUPPLIED	3 660	-2.9%	-6.4%		32 167	32 949	-2.4%	43 503	
- Used for pumped storage	-	-	-	-	-	-	-	-	-
- T&D Losses	234	-8.5%	-	-	2 087	2 211	-5.6%	2 951	-
= ELECTRICITY CONSUMED	3 426	-2.5%	-6.8%		30 081	30 738	-2.1%	40 552	

¹ current month to month of last year change

September 2020 is estimated by the IEA Secretariat

² month-to-month change

³ year-to-date compared to same period last year



NORWAY

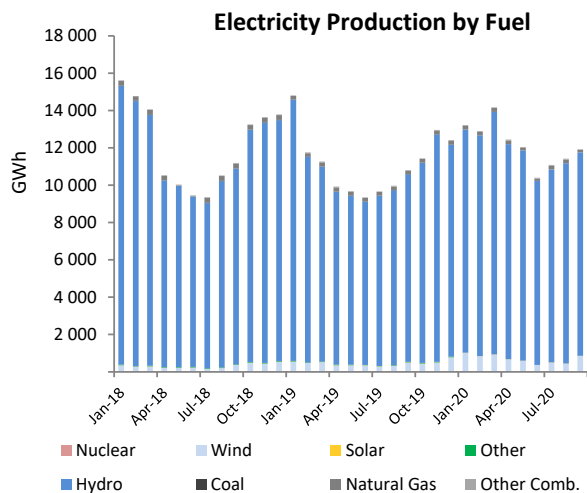
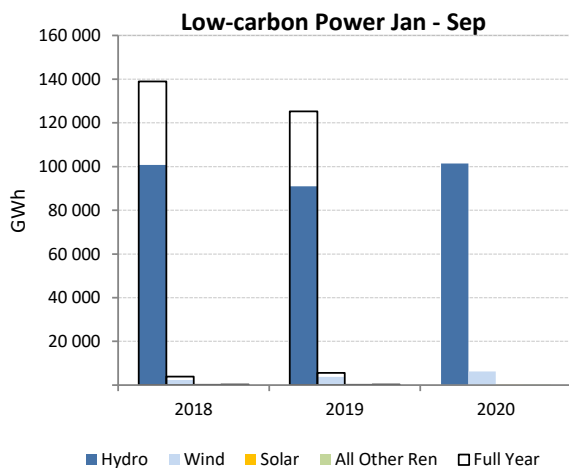
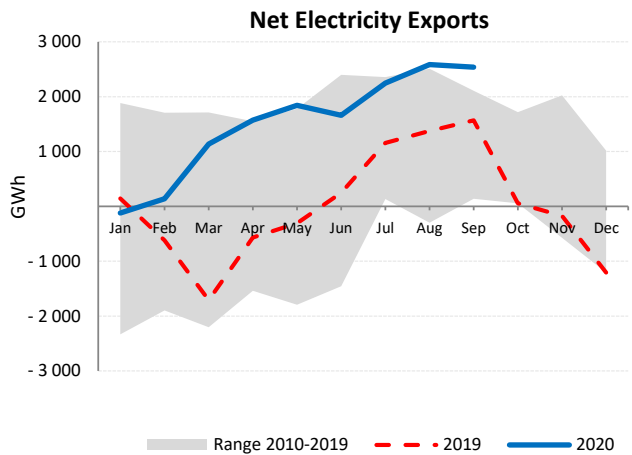
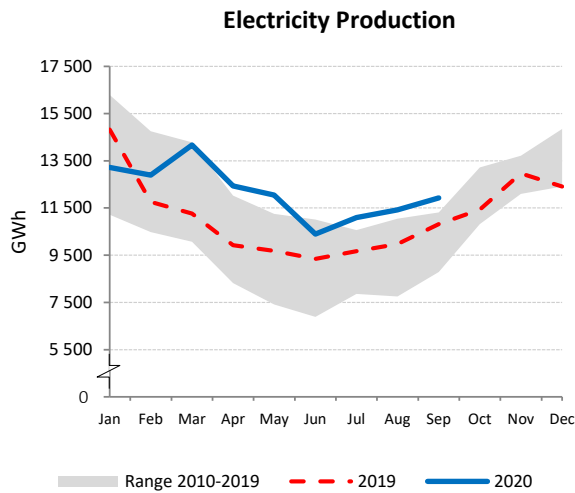
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	164	-27.2%	-31.3%	1.4%	1 942	2 202	-11.8%	2 943	2.2%
Coal ⁴	0	-100.0%	-	0.0%	-	121	-	162	0.1%
Oil ⁴	-	-	-	-	-	13	-	17	0.0%
Natural Gas	134	-24.3%	-33.9%	1.1%	1 601	1 721	-7.0%	2 317	1.7%
Combustible Renewables	16	-22.2%	-14.4%	0.1%	190	180	5.4%	241	0.2%
Other Combustibles	14	-9.3%	-19.0%	0.1%	151	157	-3.8%	205	0.2%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	10 904	8.6%	1.6%	91.4%	101 356	91 022	11.4%	125 243	93.4%
Wind	858	65.6%	92.5%	7.2%	6 288	3 771	66.8%	5 535	4.1%
Solar	1	-	-24.7%	0.0%	12	12	-	13	0.0%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	246	-	328	0.2%
RENEWABLES	11 780	11.3%	5.2%	98.8%	107 846	94 985	13.5%	131 033	97.7%
NON-RENEWABLES	147	-36.3%	-32.7%	1.2%	1 752	2 258	-22.7%	3 030	2.3%
TOTAL NET PRODUCTION	11 927	10.3%	4.5%		109 598	97 244	12.7%	134 062	
+ Imports	20	-90.3%	94.1%		3 458	8 587	-59.7%	12 353	
- Exports	2 558	44.5%	-1.4%		17 063	9 872	72.8%	12 309	
= ELECTRICITY SUPPLIED	9 389	1.6%	6.3%		95 993	95 959	0.0%	134 106	
- Used for pumped storage	34	-82.0%	65.3%		1 014	1 189	-14.7%	1 262	
- T&D Losses	815	10.0%	4.2%		7 486	6 622	13.0%	9 109	
= ELECTRICITY CONSUMED	8 540	2.7%	6.4%		87 494	88 148	-0.8%	123 734	

¹ current month to month of last year change

⁴ estimated from annual data

² month-to-month change

³ year-to-date compared to same period last year



POLAND

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	10 425	-0.2%	0.1%	88.6%	90 824	99 420	-8.6%	133 026	87.9%
Coal	8 500	-4.4%	-0.5%	72.3%	73 004	84 289	-12.2%	110 300	72.9%
Oil ⁴	-	-	-	-	-	-	-	1 620	1.1%
Natural Gas	1 155	33.3%	5.3%	9.8%	10 493	9 659	8.6%	13 550	9.0%
Combustible Renewables	609	7.5%	-2.6%	5.2%	5 582	5 081	9.8%	7 035	4.6%
Other Combustibles	161	279.2%	6.7%	1.4%	1 745	391	346.9%	520	0.3%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	176	25.4%	5.0%	1.5%	2 089	2 075	0.7%	2 637	1.7%
Wind	911	-22.8%	33.0%	7.7%	11 039	10 508	5.1%	14 761	9.8%
Solar	233	206.0%	-14.7%	2.0%	1 711	599	185.7%	711	0.5%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	19	-	-	0.2%	171	171	-	229	0.2%
RENEWABLES	1 929	-1.7%	10.2%	16.4%	20 420	18 263	11.8%	25 144	16.6%
NON-RENEWABLES	9 835	-0.6%	0.2%	83.6%	85 413	94 510	-9.6%	126 219	83.4%
TOTAL NET PRODUCTION	11 764	-0.8%	1.7%		105 834	112 773	-6.2%	151 363	
+ Imports	1 428	-11.1%	-16.8%		15 529	12 990	19.5%	17 868	
- Exports	383	-39.6%	-3.4%		5 265	5 557	-5.3%	7 245	
= ELECTRICITY SUPPLIED	12 809	-0.2%	-0.6%		116 098	120 206	-3.4%	161 986	
- Used for pumped storage	80	9.9%	5.6%		786	717	9.7%	1 033	
- T&D Losses	730	1.6%	-21.1%		7 908	6 136	28.9%	8 951	
= ELECTRICITY CONSUMED	12 000	-0.4%	1.0%		107 403	113 354	-5.2%	152 002	

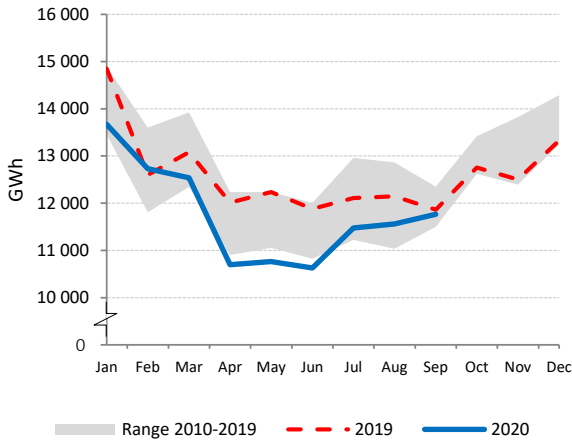
¹ current month to month of last year change

⁴ monthly figures are confidential

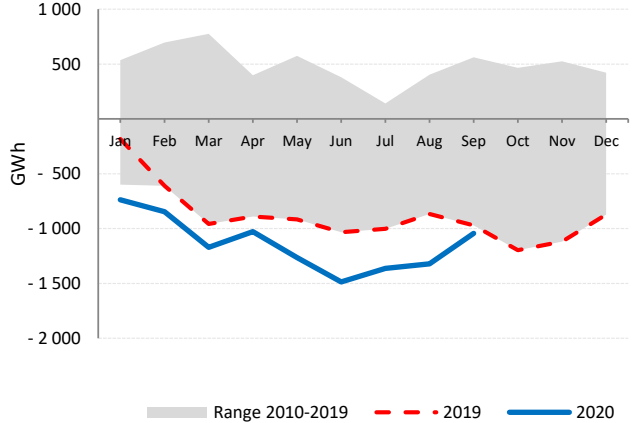
² month-to-month change

³ year-to-date compared to same period last year

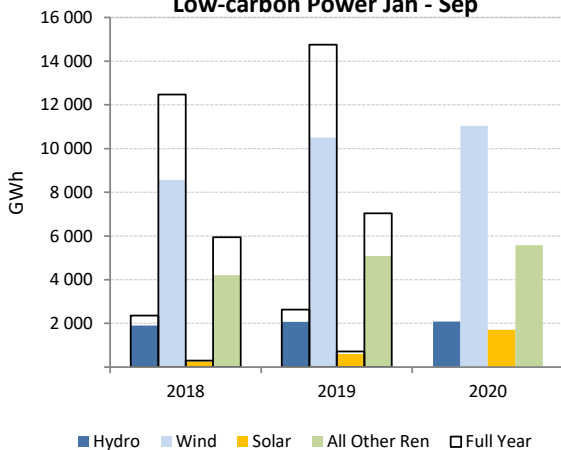
Electricity Production



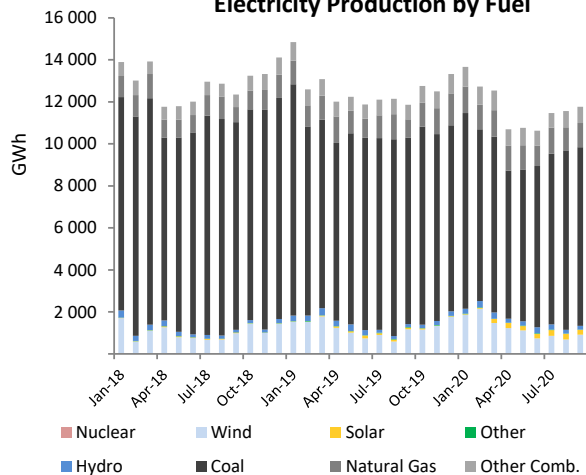
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



PORTUGAL

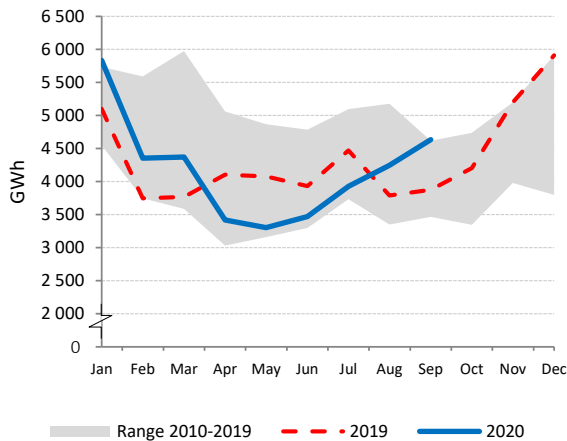
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	3 027	39.9%	13.3%	65.3%	17 763	20 419	-13.0%	26 902	51.6%
Coal	583	1012.5%	65.8%	12.6%	1 201	4 692	-74.4%	5 376	10.3%
Oil	114	-10.9%	-0.7%	2.5%	894	886	0.9%	1 218	2.3%
Natural Gas	1 998	19.4%	6.2%	43.1%	12 860	12 224	5.2%	16 774	32.1%
Combustible Renewables	309	8.0%	1.8%	6.7%	2 608	2 407	8.3%	3 268	6.3%
Other Combustibles	23	-3.4%	10.7%	0.5%	199	210	-5.1%	267	0.5%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	667	1.5%	32.5%	14.4%	10 042	6 144	63.5%	10 175	19.5%
Wind	768	-15.4%	-11.4%	16.6%	8 226	9 049	-9.1%	13 576	26.0%
Solar	158	18.7%	-15.6%	3.4%	1 386	1 111	24.8%	1 341	2.6%
Geothermal	16	9.4%	-3.3%	0.3%	149	147	1.2%	192	0.4%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	1 918	-4.1%	2.1%	41.4%	22 411	18 858	18.8%	28 551	54.7%
NON-RENEWABLES	2 718	44.8%	14.7%	58.6%	15 155	18 012	-15.9%	23 634	45.3%
TOTAL NET PRODUCTION	4 635	19.6%	9.2%		37 566	36 870	1.9%	52 185	
+ Imports	424	-50.5%	-31.9%		6 196	6 513	-4.9%	8 099	
- Exports	585	139.2%	36.2%		3 926	2 464	59.3%	4 700	
= ELECTRICITY SUPPLIED	4 474	-0.3%	0.8%		39 837	40 919	-2.6%	55 584	
- Used for pumped storage	138	-21.3%	-28.3%		1 493	1 203	24.1%	1 827	
- T&D Losses	431	8.3%	1.7%		3 843	3 653	5.2%	4 948	
= ELECTRICITY CONSUMED	3 905	-0.2%	2.1%		34 501	36 064	-4.3%	48 810	

¹ current month to month of last year change

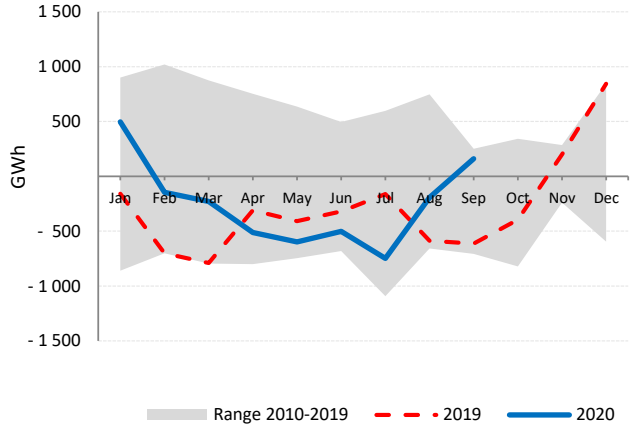
² month-to-month change

³ year-to-date compared to same period last year

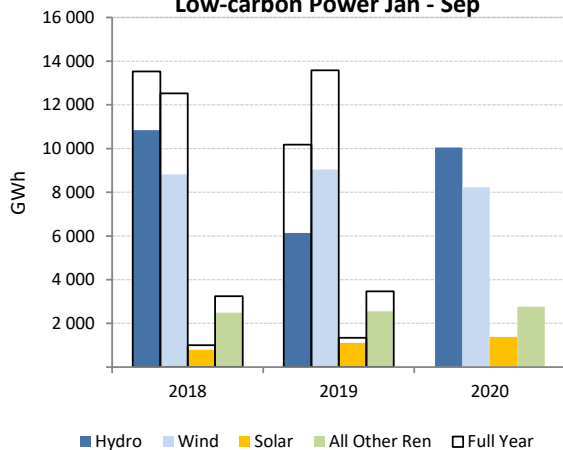
Electricity Production



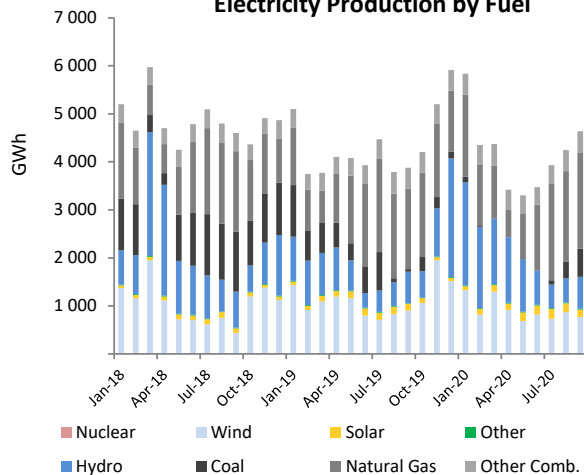
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel

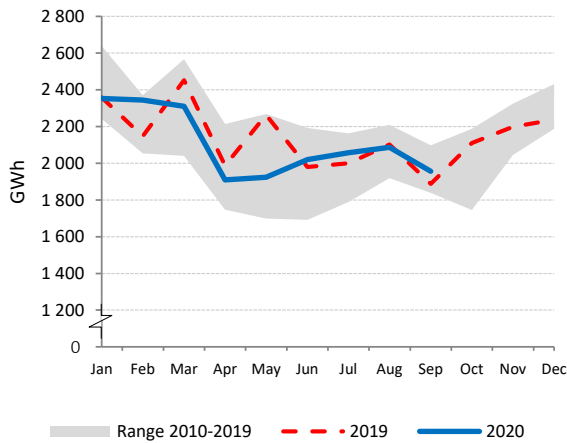


SLOVAK REPUBLIC

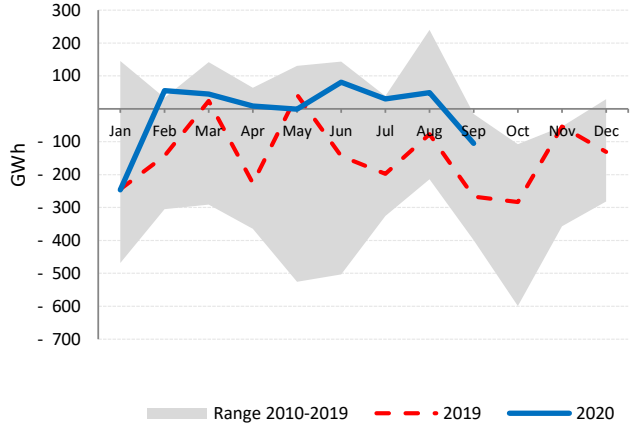
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	516	24.0%	19.7%	26.4%	4 345	4 548	-4.5%	6 174	24.0%
Coal	115	25.3%	147.8%	5.9%	1 066	1 666	-36.0%	2 233	8.7%
Oil	28	-28.2%	-17.6%	1.4%	276	278	-0.7%	399	1.6%
Natural Gas	279	30.7%	1.3%	14.3%	2 254	1 769	27.4%	2 478	9.6%
Combustible Renewables	92	30.0%	25.0%	4.7%	739	826	-10.6%	1 052	4.1%
Other Combustibles	1	-	30.0%	0.1%	9	8	13.6%	11	0.0%
Nuclear	1 019	-11.6%	-15.6%	52.1%	10 494	10 483	0.1%	14 407	56.0%
Hydro	351	37.0%	-3.6%	17.9%	3 486	3 599	-3.1%	4 489	17.5%
Wind	-	-	-	-	-	2	-	5	0.0%
Solar	66	13.8%	-17.5%	3.4%	595	507	17.4%	589	2.3%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	5	-	33.3%	0.2%	41	41	0.0%	59	0.2%
RENEWABLES	508	32.2%	-1.7%	26.0%	4 820	4 934	-2.3%	6 135	23.9%
NON-RENEWABLES	1 448	-3.7%	-7.7%	74.0%	14 141	14 245	-0.7%	19 588	76.1%
TOTAL NET PRODUCTION	1 956	3.6%	-6.2%		18 961	19 179	-1.1%	25 723	
+ Imports	834	-37.4%	-3.6%		9 548	10 106	-5.5%	13 538	
- Exports	729	-31.6%	-20.2%		9 465	8 875	6.6%	11 838	
= ELECTRICITY SUPPLIED	2 061	-4.3%	1.2%		19 045	20 410	-6.7%	27 423	
- Used for pumped storage	42	61.5%	27.3%		273	222	23.0%	295	
- T&D Losses ⁴	-	-	-		-	952	-	1 277	
= ELECTRICITY CONSUMED	2 019	-0.2%	0.8%		18 772	19 236	-2.4%	25 852	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

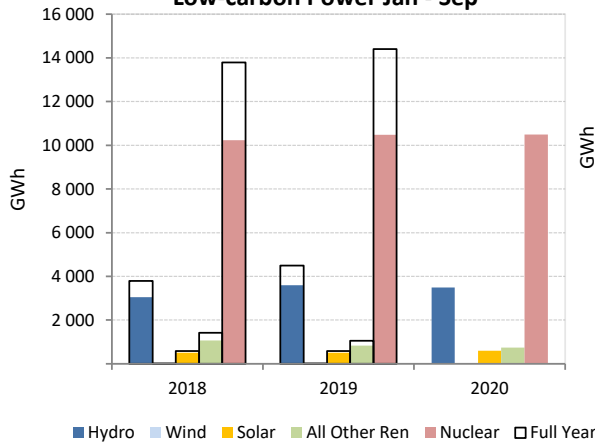
Electricity Production



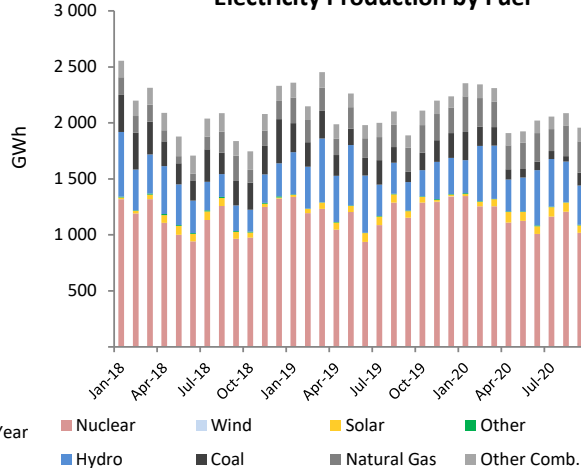
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



SLOVENIA

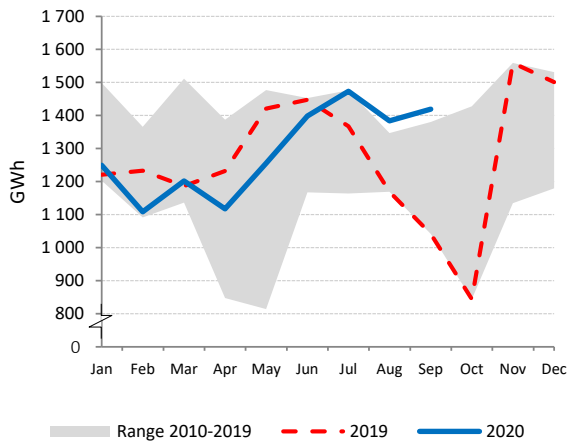
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	405	35.3%	5.2%	28.5%	3 149	3 381	-6.9%	4 761	31.3%
Coal	350	37.5%	4.8%	24.7%	2 604	2 880	-9.6%	4 037	26.5%
Oil	3	1407.8%	242.4%	0.2%	6	8	-32.8%	9	0.1%
Natural Gas	39	43.7%	8.3%	2.8%	368	324	13.6%	480	3.1%
Combustible Renewables	13	-24.8%	-5.6%	0.9%	164	162	1.0%	226	1.5%
Other Combustibles	1	2.6%	-19.4%	0.0%	7	7	4.4%	9	0.1%
Nuclear	494	1.3%	-2.3%	34.8%	4 535	4 503	0.7%	5 533	36.3%
Hydro	489	117.0%	6.9%	34.5%	3 638	3 173	14.6%	4 622	30.4%
Wind	1	-8.0%	49.7%	0.0%	4	5	-3.7%	6	0.0%
Solar	30	7.0%	-12.2%	2.1%	282	258	9.1%	302	2.0%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	533	96.4%	5.3%	37.5%	4 088	3 598	13.6%	5 157	33.9%
NON-RENEWABLES	887	15.0%	1.0%	62.5%	7 520	7 722	-2.6%	10 068	66.1%
TOTAL NET PRODUCTION	1 420	36.2%	2.6%		11 608	11 320	2.5%	15 224	
+ Imports	521	-26.3%	11.5%		5 519	6 938	-20.5%	9 021	
- Exports	779	21.1%	5.7%		6 571	7 195	-8.7%	9 340	
= ELECTRICITY SUPPLIED	1 162	5.0%	4.3%		10 556	11 063	-4.6%	14 906	
- Used for pumped storage	28	-2.1%	-4.4%		276	168	64.0%	272	
- T&D Losses	52	-0.7%	1.8%		559	603	-7.4%	858	
= ELECTRICITY CONSUMED	1 081	5.5%	4.6%		9 721	10 292	-5.5%	13 776	

¹ current month to month of last year change

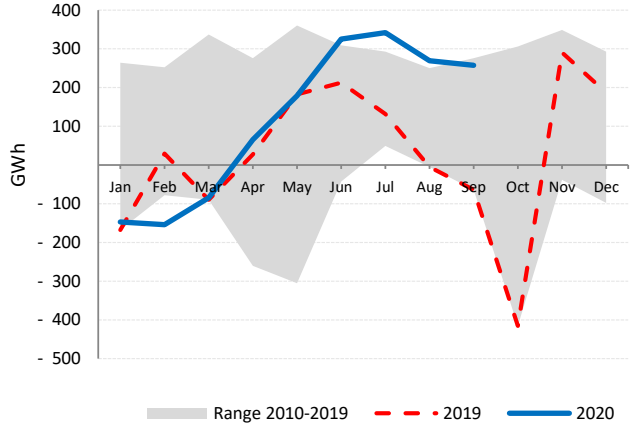
² month-to-month change

³ year-to-date compared to same period last year

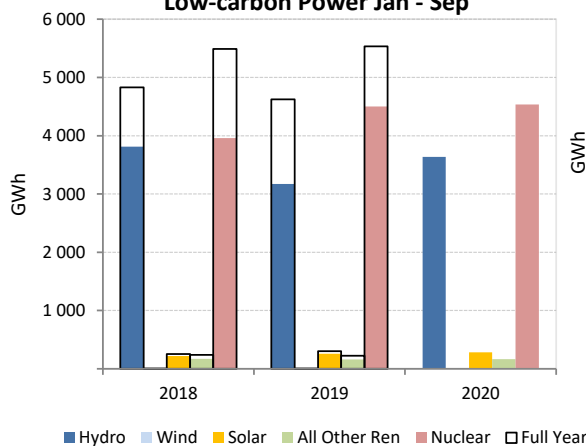
Electricity Production



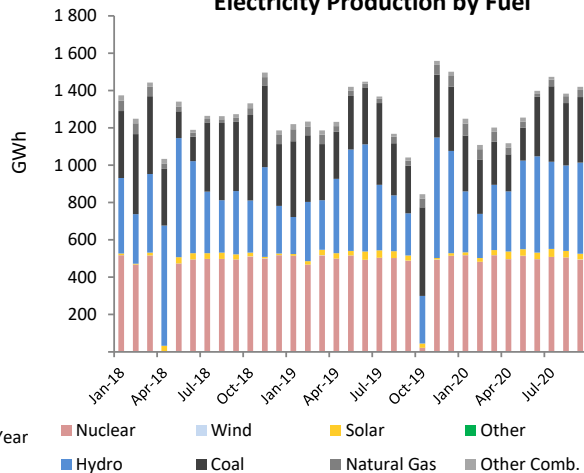
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



SPAIN

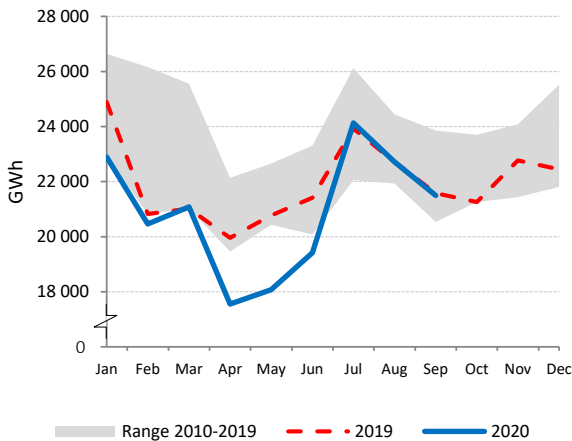
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	8 935	-11.2%	-4.1%	41.6%	68 070	86 314	-21.1%	112 593	42.7%
Coal	376	-48.6%	4.2%	1.7%	4 348	11 362	-61.7%	13 562	5.1%
Oil	912	-11.3%	2.7%	4.2%	7 769	9 064	-14.3%	12 056	4.6%
Natural Gas	6 989	-9.8%	-6.1%	32.5%	50 728	61 013	-16.9%	80 466	30.5%
Combustible Renewables	575	23.5%	5.2%	2.7%	4 574	4 117	11.1%	5 523	2.1%
Other Combustibles	84	-6.6%	-0.8%	0.4%	651	758	-14.1%	985	0.4%
Nuclear	4 876	-2.5%	-5.4%	22.7%	41 361	43 562	-5.1%	55 883	21.2%
Hydro	1 863	40.1%	-8.7%	8.7%	25 028	17 341	44.3%	26 349	10.0%
Wind	3 927	1.6%	7.6%	18.3%	37 092	37 637	-1.4%	54 235	20.6%
Solar	1 893	44.4%	-25.7%	8.8%	16 269	12 160	33.8%	14 400	5.5%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	84	-	112	0.0%
RENEWABLES	8 257	18.4%	-6.0%	38.4%	82 962	71 255	16.4%	100 507	38.1%
NON-RENEWABLES	13 236	-9.4%	-5.0%	61.6%	104 857	125 842	-16.7%	163 064	61.9%
TOTAL NET PRODUCTION	21 494	-0.4%	-5.4%		187 819	197 097	-4.7%	263 571	
+ Imports	920	-25.9%	-21.2%		13 400	14 347	-6.6%	18 720	
- Exports	1 546	35.1%	9.9%		10 519	8 218	28.0%	11 858	
= ELECTRICITY SUPPLIED	20 868	-3.7%	-7.2%		190 700	203 226	-6.2%	270 433	
- Used for pumped storage	209	6.5%	-28.7%		3 489	1 862	87.4%	3 025	
- T&D Losses	1 949	-3.7%	-6.8%		17 674	18 957	-6.8%	25 187	
= ELECTRICITY CONSUMED	18 709	-3.8%	-6.9%		169 537	182 407	-7.1%	242 221	

¹ current month to month of last year change

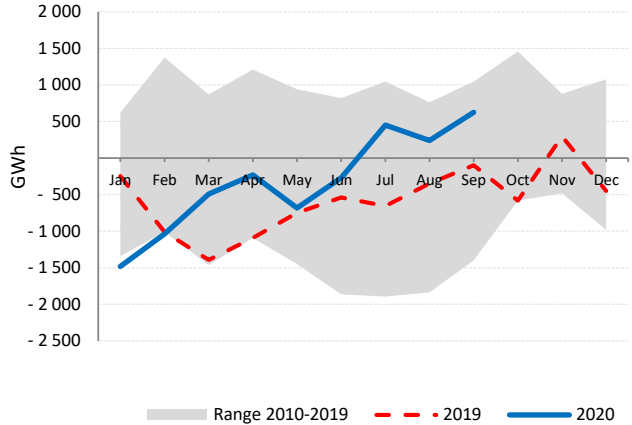
² month-to-month change

³ year-to-date compared to same period last year

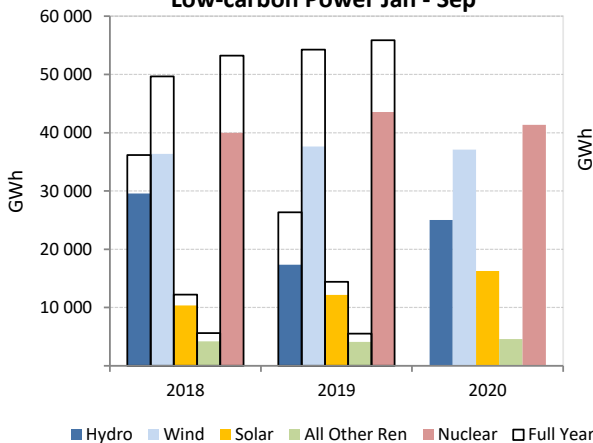
Electricity Production



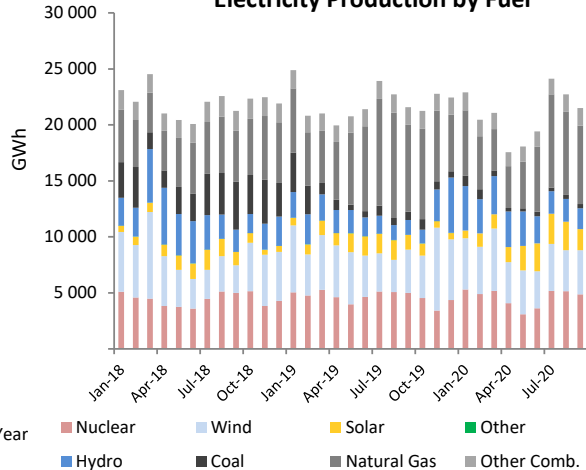
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



SWEDEN

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	854	-1.1%	20.2%	7.7%	8 878	11 744	-24.4%	15 816	9.5%
Coal	0	-92.5%	-	0.0%	5	1 126	-99.5%	1 142	0.7%
Oil	8	-68.7%	-8.1%	0.1%	74	177	-58.1%	209	0.1%
Natural Gas	5	202.1%	-38.9%	0.0%	38	249	-84.7%	274	0.2%
Combustible Renewables	733	-1.8%	17.1%	6.6%	7 674	8 998	-14.7%	12 579	7.6%
Other Combustibles	108	18.9%	59.7%	1.0%	1 087	1 193	-8.9%	1 612	1.0%
Nuclear	3 149	-27.6%	22.8%	28.4%	35 234	47 537	-25.9%	64 334	38.8%
Hydro	4 666	4.0%	-20.9%	42.1%	52 488	46 757	12.3%	64 969	39.2%
Wind	2 362	43.0%	96.8%	21.3%	20 150	14 262	41.3%	19 847	12.0%
Solar⁴	61	-	-21.5%	0.6%	613	613	-	679	0.4%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	7 822	12.6%	0.3%	70.5%	80 926	70 630	14.6%	98 074	59.2%
NON-RENEWABLES	3 270	-26.8%	23.5%	29.5%	36 438	50 282	-27.5%	67 571	40.8%
TOTAL NET PRODUCTION	11 092	-2.8%	6.2%		117 364	120 912	-2.9%	165 645	
+ Imports	1 339	39.5%	-11.8%		8 576	6 808	26.0%	9 070	
- Exports	2 694	11.3%	3.2%		27 496	26 275	4.6%	35 231	
= ELECTRICITY SUPPLIED	9 737	-2.2%	4.0%		98 444	101 445	-3.0%	139 484	
- Used for pumped storage	3	17.0%	121.6%		19	23	-15.9%	32	
- T&D Losses	733	6.3%	-1.2%		7 807	7 690	1.5%	10 842	
= ELECTRICITY CONSUMED	9 001	-2.8%	4.5%		90 617	93 732	-3.3%	128 610	

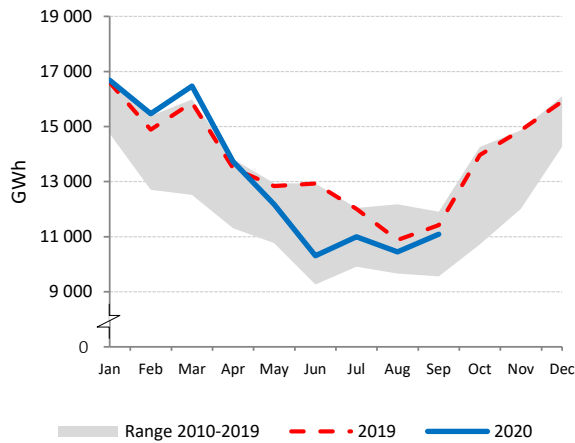
¹ current month to month of last year change

⁴ estimated by the IEA secretariat

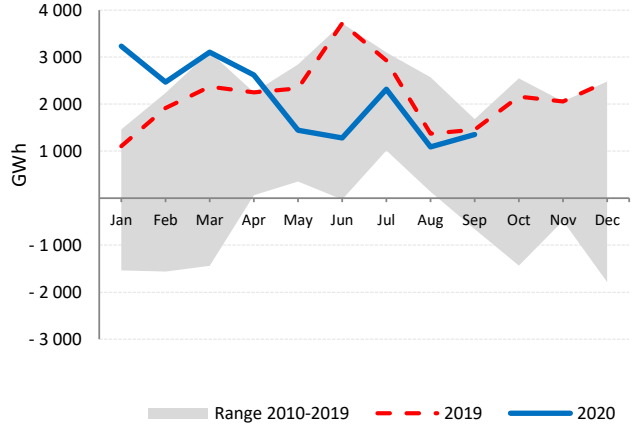
² month-to-month change

³ year-to-date compared to same period last year

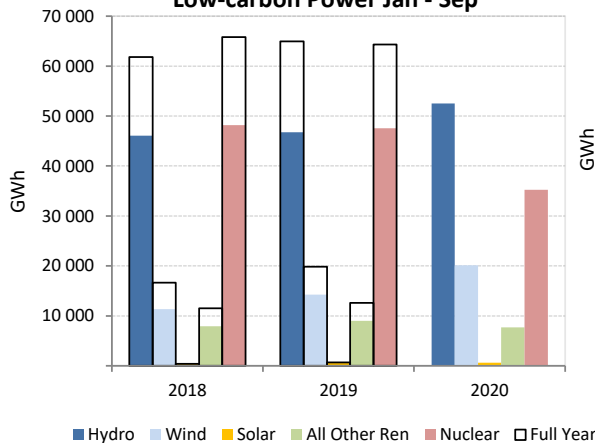
Electricity Production



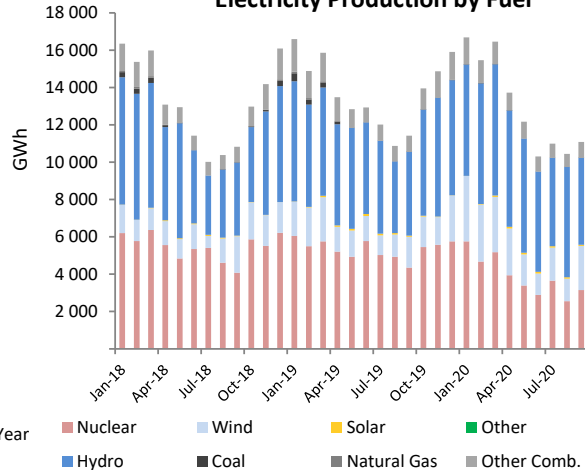
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



SWITZERLAND

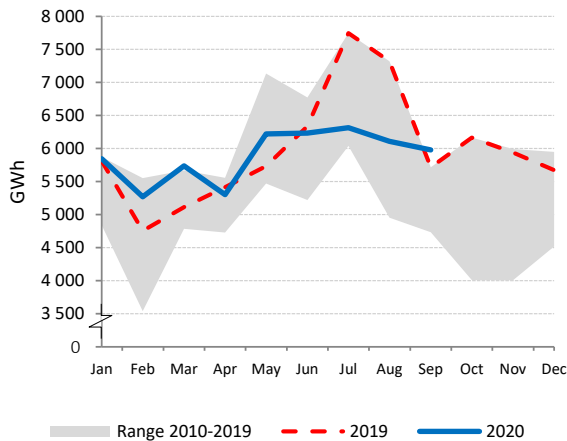
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	313	7.4%	7.6%	5.2%	2 700	2 593	4.1%	3 580	5.0%
Coal	-	-	-	-	-	-	-	-	-
Oil	1	-50.0%	-	0.0%	11	22	-50.0%	30	0.0%
Natural Gas	43	-7.1%	8.3%	0.7%	373	416	-10.4%	575	0.8%
Combustible Renewables	158	9.0%	7.8%	2.6%	1 363	1 289	5.8%	1 779	2.5%
Other Combustibles	110	13.6%	7.2%	1.8%	953	866	10.1%	1 196	1.7%
Nuclear	2 067	-4.4%	27.1%	34.6%	16 756	18 216	-8.0%	25 280	35.2%
Hydro	3 347	9.5%	-14.0%	56.0%	31 224	31 120	0.3%	40 556	56.5%
Wind	8	-20.0%	14.3%	0.1%	102	98	4.0%	146	0.2%
Solar	243	24.6%	-16.9%	4.1%	2 232	1 931	15.6%	2 178	3.0%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	3 757	10.2%	-13.4%	62.8%	34 921	34 438	1.4%	44 659	62.3%
NON-RENEWABLES	2 222	-3.8%	25.5%	37.2%	18 093	19 520	-7.3%	27 080	37.7%
TOTAL NET PRODUCTION	5 979	4.6%	-2.1%		53 014	53 958	-1.7%	71 739	
+ Imports	1 580	-26.6%	6.6%		18 336	20 839	-12.0%	29 505	
- Exports	2 545	-11.8%	-1.1%		24 382	26 327	-7.4%	35 765	
= ELECTRICITY SUPPLIED	5 014	0.6%	0.0%		46 969	48 471	-3.1%	65 479	
- Used for pumped storage	385	-0.3%	-24.2%		3 561	3 204	11.1%	4 133	
- T&D Losses	312	0.3%	-2.1%		2 937	3 069	-4.3%	4 149	
= ELECTRICITY CONSUMED	4 317	0.6%	3.1%		40 471	42 198	-4.1%	57 197	

¹ current month to month of last year change

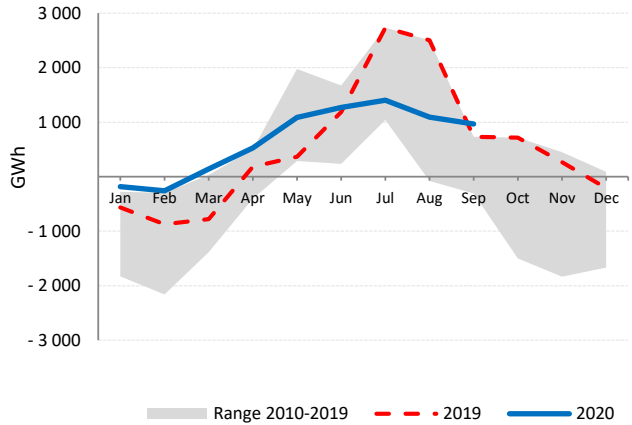
² month-to-month change

³ year-to-date compared to same period last year

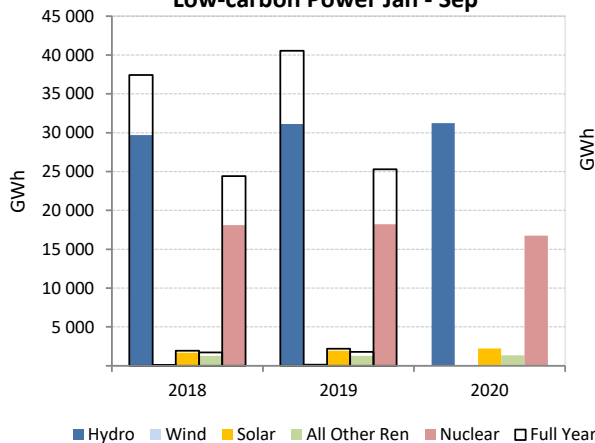
Electricity Production



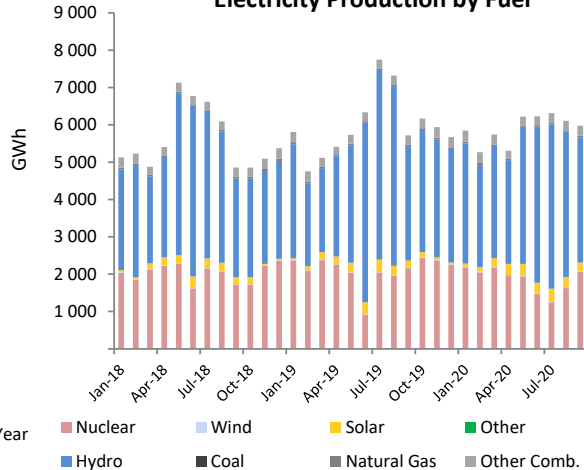
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel

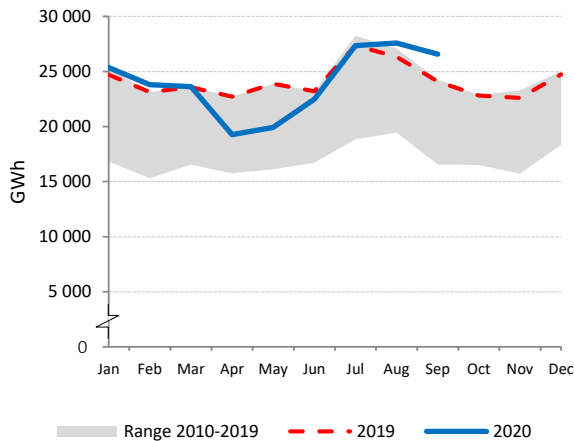


TURKEY

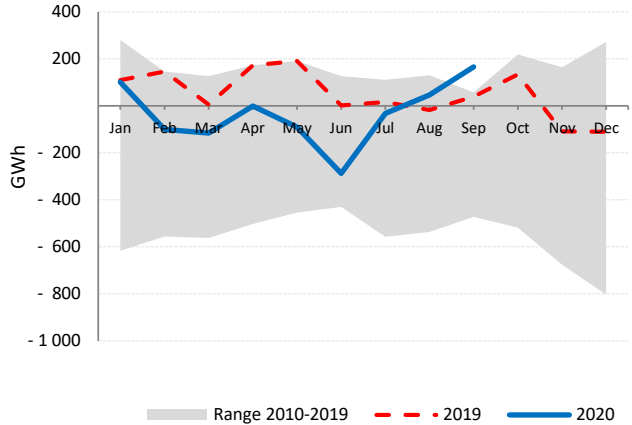
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	17 219	15.3%	3.7%	64.8%	116 531	114 819	1.5%	161 975	56.0%
Coal	8 828	-10.1%	-3.2%	33.2%	71 690	74 865	-4.2%	105 067	36.3%
Oil	208	1091.8%	327.2%	0.8%	410	252	62.3%	313	0.1%
Natural Gas	7 828	62.5%	10.6%	29.5%	41 362	37 312	10.9%	53 317	18.4%
Combustible Renewables	354	26.8%	1.9%	1.3%	3 052	2 378	28.3%	3 263	1.1%
Other Combustibles	1	59.8%	-50.6%	0.0%	17	11	47.8%	16	0.0%
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	5 535	-2.0%	-16.9%	20.8%	65 767	73 613	-10.7%	88 209	30.5%
Wind	2 106	5.5%	-14.1%	7.9%	18 868	17 124	10.2%	21 613	7.5%
Solar	1 057	14.3%	-14.2%	4.0%	8 628	7 171	20.3%	8 946	3.1%
Geothermal	546	8.2%	0.9%	2.1%	5 302	5 498	-3.6%	7 352	2.5%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	106	34.3%	2.6%	0.4%	827	762	8.5%	1 040	0.4%
RENEWABLES	9 597	2.6%	-14.5%	36.1%	101 617	105 784	-3.9%	129 383	44.7%
NON-RENEWABLES	16 971	15.2%	3.8%	63.9%	114 306	113 203	1.0%	159 752	55.3%
TOTAL NET PRODUCTION	26 569	10.3%	-3.7%		215 923	218 987	-1.4%	289 136	
+ Imports	53	-59.1%	-50.2%		1 767	1 476	19.7%	2 212	
- Exports	219	30.1%	42.9%		1 454	2 139	-32.0%	2 789	
= ELECTRICITY SUPPLIED	26 403	9.8%	-4.1%		216 236	218 324	-1.0%	288 559	
- Used for pumped storage	-	-	-		-	-	-	-	
- T&D Losses ⁴	2 859	10.0%	-3.9%		23 376	23 674	-1.3%	31 285	
= ELECTRICITY CONSUMED	23 544	9.8%	-4.2%		192 860	194 650	-0.9%	257 273	

¹ current month to month of last year change ⁴ estimated
² month-to-month change
³ year-to-date compared to same period last year

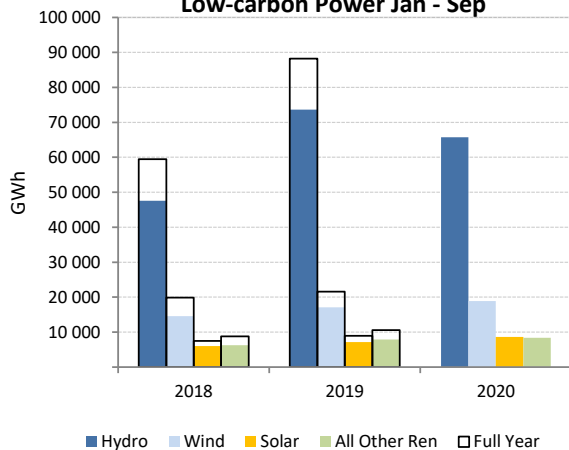
Electricity Production



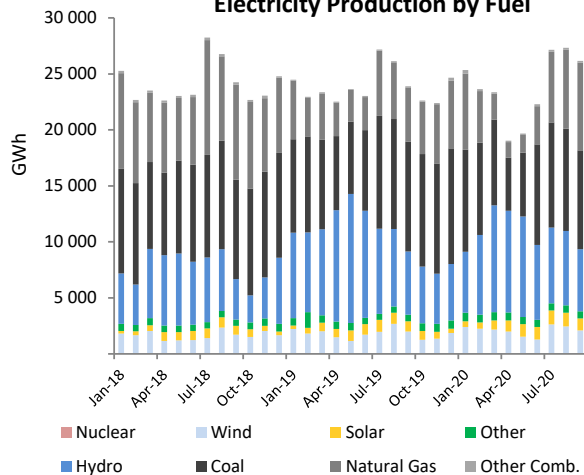
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel

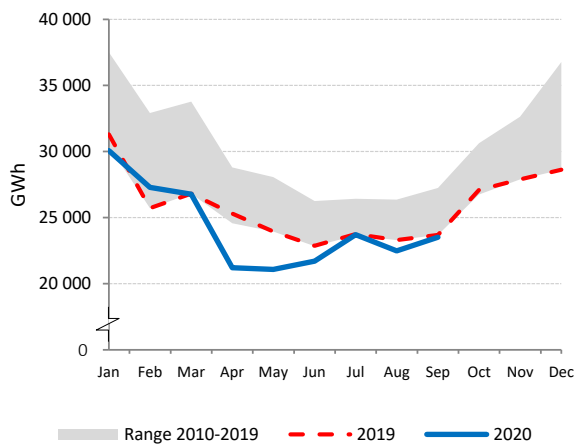


UNITED KINGDOM

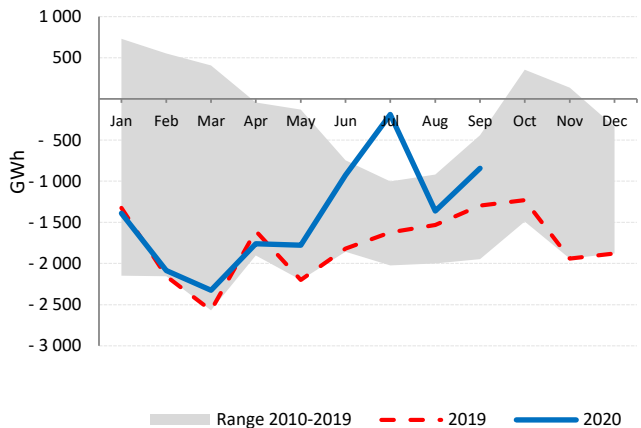
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	12 858	9.0%	-2.2%	54.7%	113 581	128 181	-11.4%	174 422	56.2%
Coal	289	12.6%	83.1%	1.2%	4 462	4 520	-1.3%	7 359	2.4%
Oil	56	-48.1%	-23.0%	0.2%	608	1 011	-39.9%	1 418	0.5%
Natural Gas	9 542	14.7%	-1.2%	40.6%	76 316	93 578	-18.4%	125 353	40.4%
Combustible Renewables	2 607	-5.3%	-9.5%	11.1%	28 610	25 774	11.0%	35 809	11.5%
Other Combustibles	364	1.8%	-3.8%	1.5%	3 585	3 297	8.7%	4 483	1.4%
Nuclear	3 242	-27.9%	8.9%	13.8%	32 615	36 846	-11.5%	51 032	16.4%
Hydro	490	-30.3%	23.2%	2.1%	5 464	5 258	3.9%	7 618	2.5%
Wind	5 700	6.4%	23.6%	24.2%	54 703	44 900	21.8%	64 335	20.7%
Solar	1 233	-7.5%	-8.4%	5.2%	11 494	11 511	-0.1%	12 918	4.2%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	1	-	-	0.0%	10	10	-	14	0.0%
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	10 031	-1.1%	8.6%	42.6%	100 281	87 453	14.7%	120 693	38.9%
NON-RENEWABLES	13 493	-0.4%	1.9%	57.4%	117 586	139 253	-15.6%	189 645	61.1%
TOTAL NET PRODUCTION	23 525	-0.7%	4.6%		217 868	226 706	-3.9%	310 339	
+ Imports	1 265	-24.1%	-22.9%		16 213	18 426	-12.0%	24 556	
- Exports	423	14.7%	52.5%		3 556	2 303	54.4%	3 385	
= ELECTRICITY SUPPLIED	24 367	-2.5%	2.2%		230 525	242 829	-5.1%	331 509	
- Used for pumped storage	121	-18.4%	3.9%		1 159	1 537	-24.6%	2 115	
- T&D Losses	2 059	23.2%	-15.3%		21 740	19 269	12.8%	26 732	
= ELECTRICITY CONSUMED	22 186	-4.2%	4.2%		207 626	222 022	-6.5%	302 662	

¹ current month to month of last year change
² month-to-month change
³ year-to-date compared to same period last year

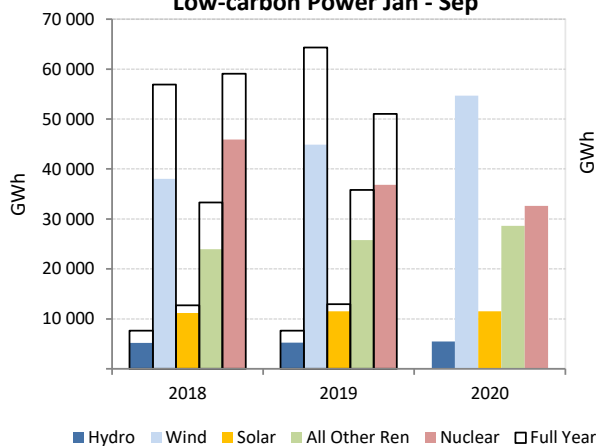
Electricity Production



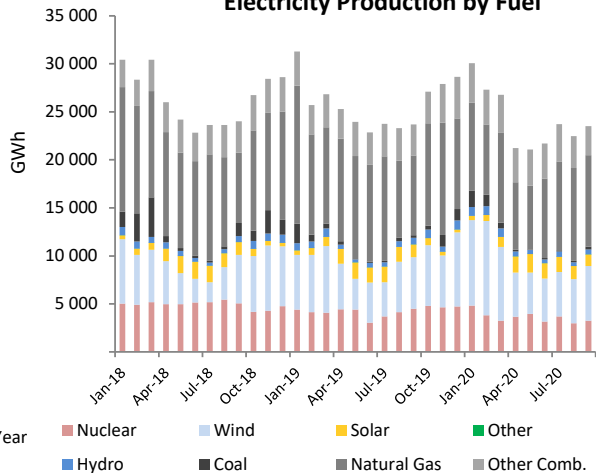
Net Electricity Exports



Low-carbon Power Jan - Sep



Electricity Production by Fuel



UNITED STATES

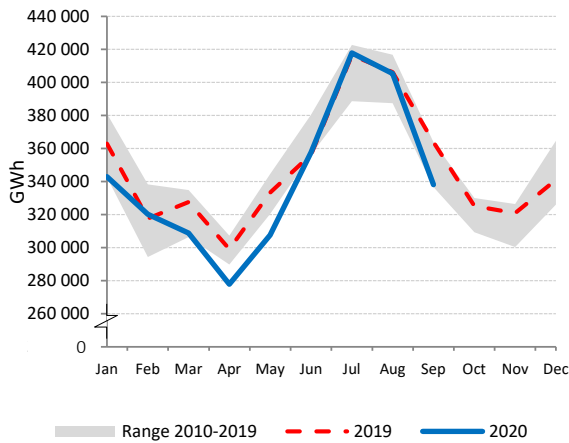
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	218 387	-11.5%	-20.7%	64.6%	1 906 223	2 041 727	-6.6%	2 665 893	63.9%
Coal	71 654	-20.2%	-24.6%	21.2%	601 760	785 773	-23.4%	1 011 531	24.3%
Oil	2 468	-21.6%	-28.9%	0.7%	27 896	26 552	5.1%	33 849	0.8%
Natural Gas	138 951	-6.1%	-18.7%	41.1%	1 226 519	1 176 764	4.2%	1 550 904	37.2%
Combustible Renewables	4 496	-7.1%	-9.0%	1.3%	42 398	45 365	-6.5%	59 766	1.4%
Other Combustibles	818	-5.0%	-7.1%	0.2%	7 651	7 274	5.2%	9 843	0.2%
Nuclear	65 741	-0.3%	-4.7%	19.4%	599 086	610 135	-1.8%	809 409	19.4%
Hydro	22 152	14.8%	-21.1%	6.5%	248 719	242 444	2.6%	308 646	7.4%
Wind	22 643	-4.6%	2.6%	6.7%	237 823	215 953	10.1%	295 062	7.1%
Solar	7 677	15.2%	-17.2%	2.3%	70 440	58 330	20.8%	72 180	1.7%
Geothermal	1 319	0.5%	-2.5%	0.4%	11 652	11 974	-2.7%	15 473	0.4%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	314	-21.9%	-10.2%	0.1%	3 005	3 401	-11.6%	4 511	0.1%
RENEWABLES	58 286	4.4%	-11.3%	17.2%	611 032	574 066	6.4%	751 128	18.0%
NON-RENEWABLES	279 946	-9.1%	-17.6%	82.8%	2 465 917	2 609 899	-5.5%	3 420 047	82.0%
TOTAL NET PRODUCTION	338 232	-7.1%	-16.6%		3 076 949	3 183 964	-3.4%	4 171 175	
+ Imports	5 043	-0.7%	-13.6%		46 256	47 007	-1.6%	59 052	
- Exports	1 937	16.6%	-23.9%		19 582	15 148	29.3%	20 008	
= ELECTRICITY SUPPLIED	341 339	-7.1%	-16.5%		3 103 623	3 215 823	-3.5%	4 210 219	
- Used for pumped storage	2 444	-9.5%	-26.8%		21 105	20 725	1.8%	26 033	
- T&D Losses	11 261	-30.2%	-54.5%		173 574	188 523	-7.9%	244 112	
= ELECTRICITY CONSUMED	327 634	-6.0%	-13.9%		2 908 943	3 006 575	-3.2%	3 940 074	

¹ current month to month of last year change

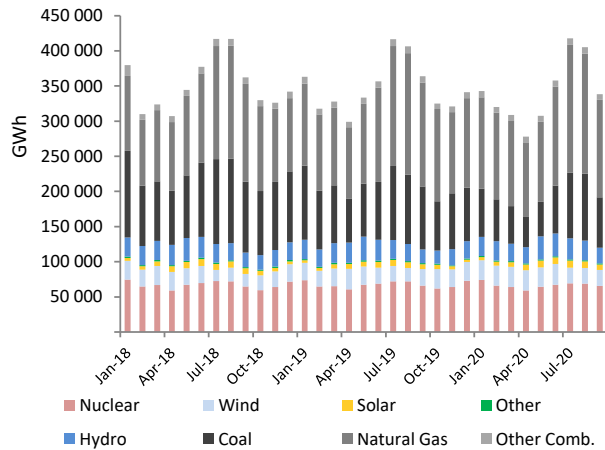
² month-to-month change

³ year-to-date compared to same period last year

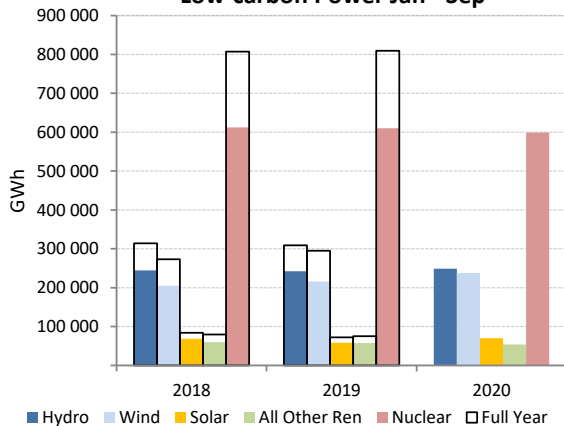
Electricity Production



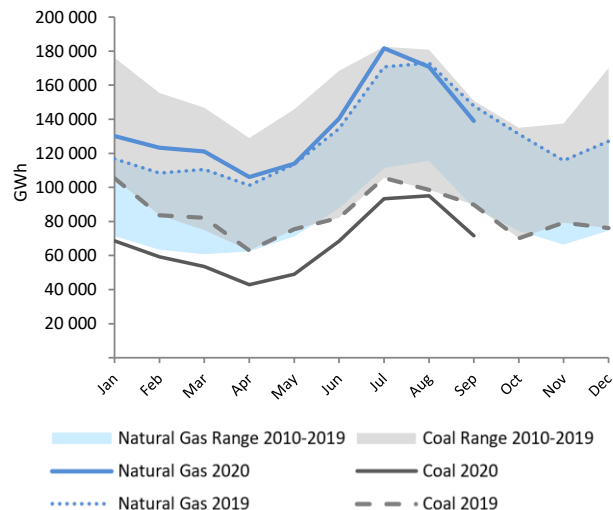
Electricity Production by Fuel



Low-carbon Power Jan - Sep

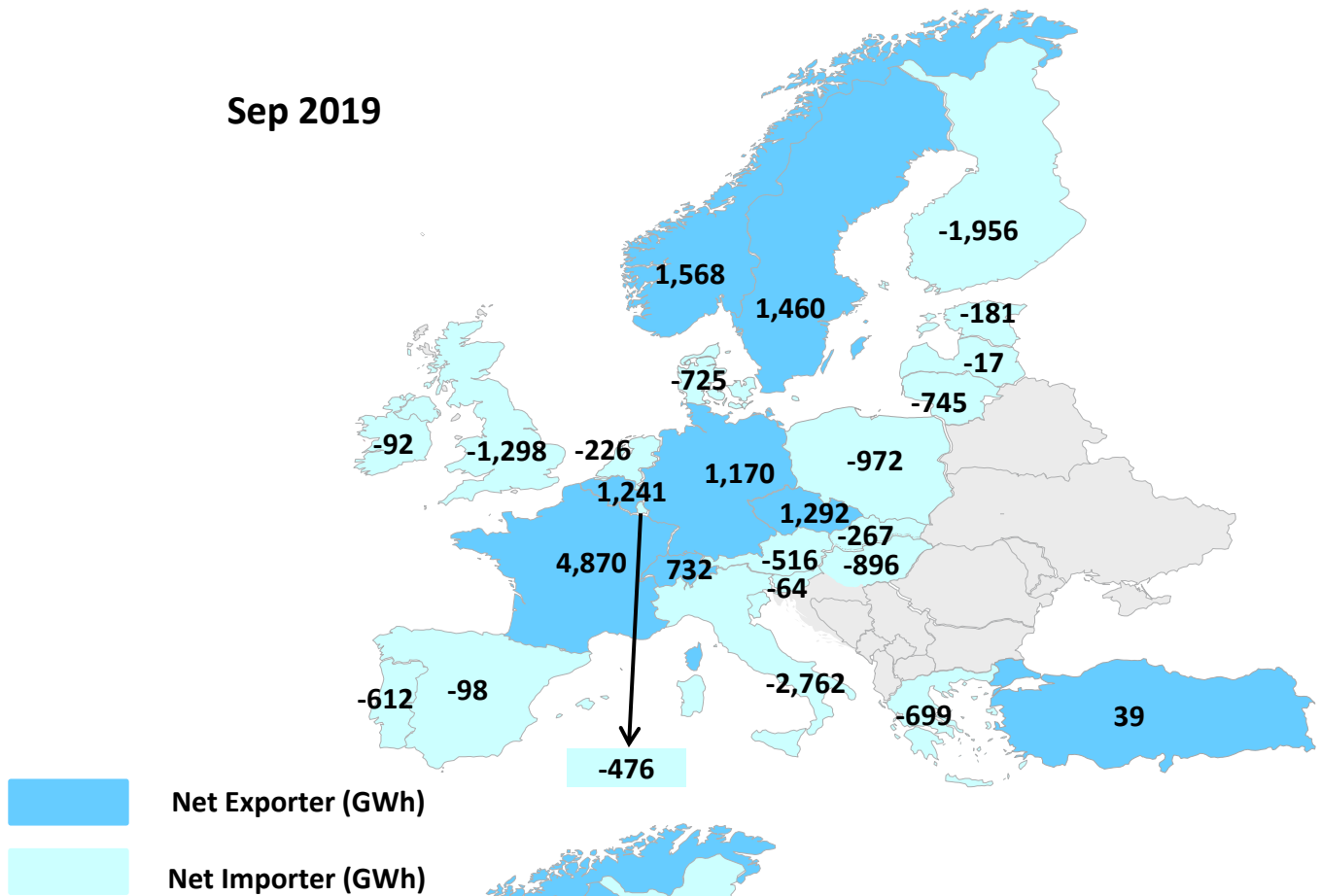


Natural Gas and Coal

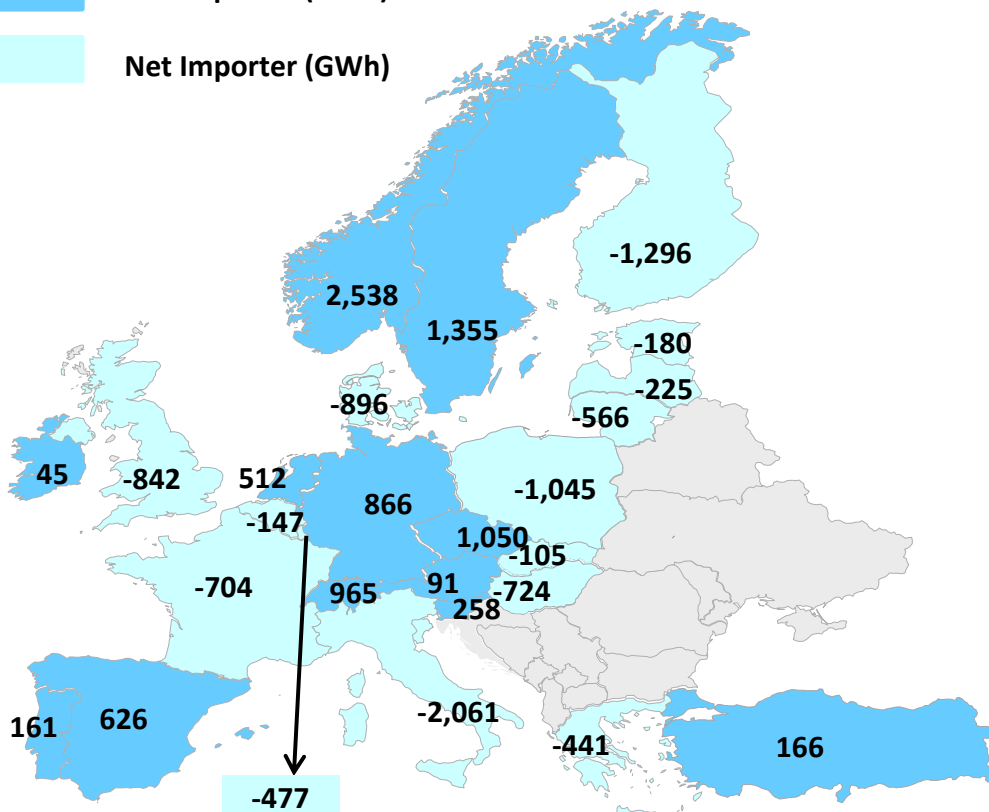


NET ELECTRICITY EXPORTS OECD EUROPE MAP 1

Sep 2019

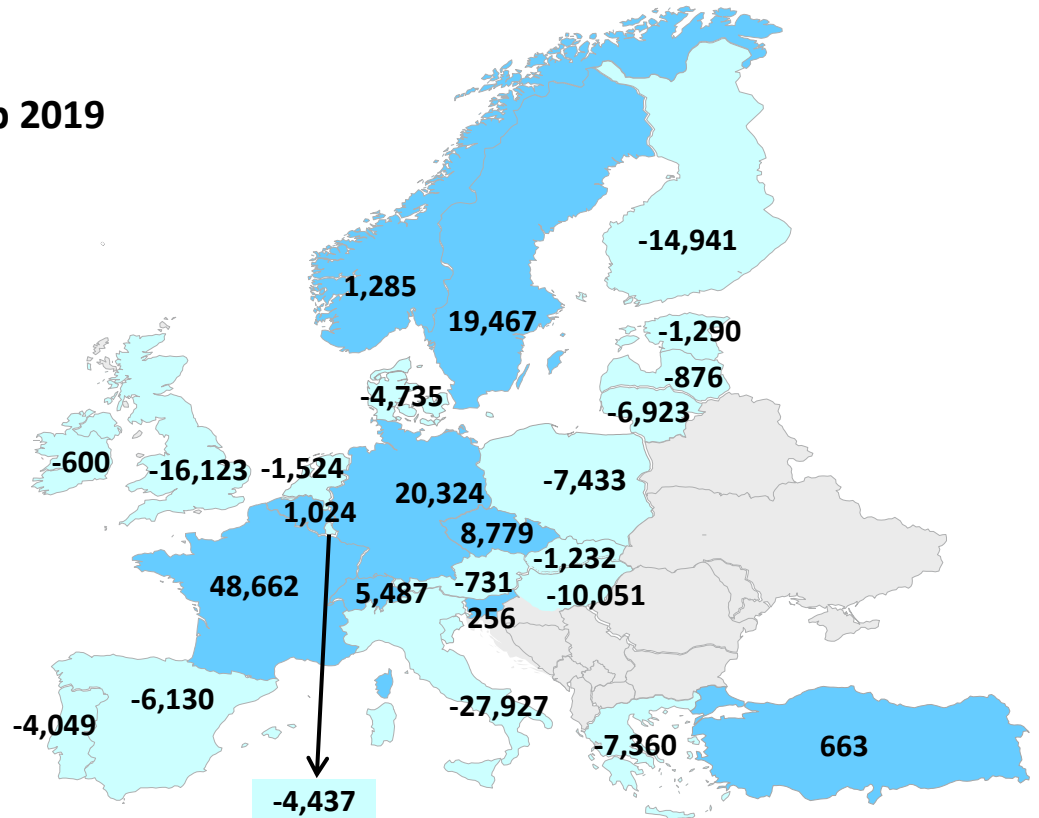


Sep 2020

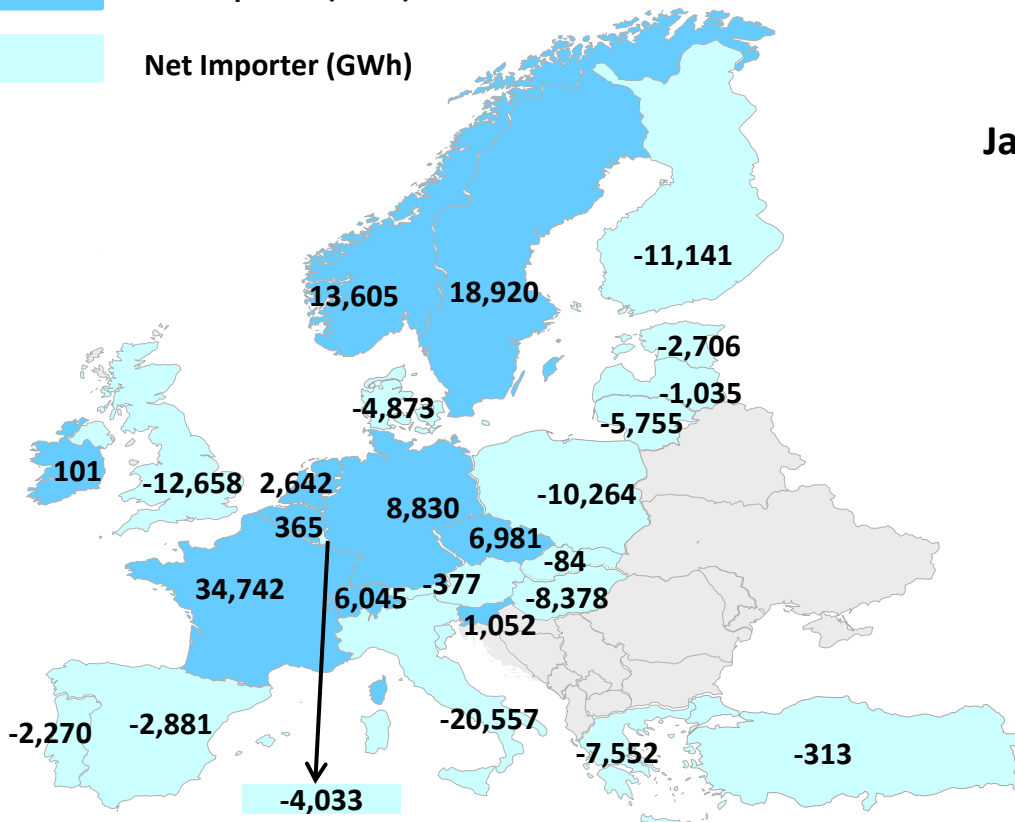


NET ELECTRICITY EXPORTS OECD EUROPE MAP 2

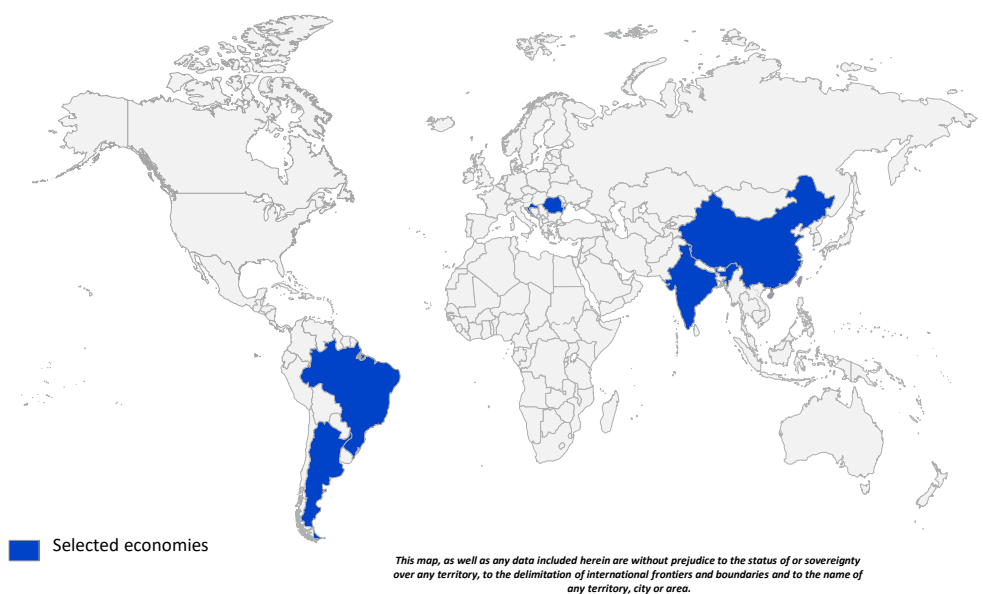
Jan - Sep 2019



Jan - Sep 2020



Annex 1 - Monthly Electricity Statistics for selected non-OECD economies



HIGHLIGHTS

- In Argentina, wind production in the first three quarters of 2020 doubled, up by 100.2%, compared to the same period in 2019. The output of wind power was 6.6 TWh. Wind power production has increased continuously since 2019, providing 8.0% of total electricity in September 2020. This rapid growth has compensated for the decrease in hydro production in the first three quarters of 2020, down by 2.7 TWh or 13.1%, as a result of an ongoing drought.
- In Brazil, non-renewable production more than halved in September 2020 compared to September 2019, 56.1% lower, producing 4.7 TWh of electricity compared to 10.7 TWh in September 2019. Lower natural gas production is responsible for this decrease. In September 2020, natural gas power output was 2.6 TWh, down by 57.0% compared to September 2019.

ARGENTINA

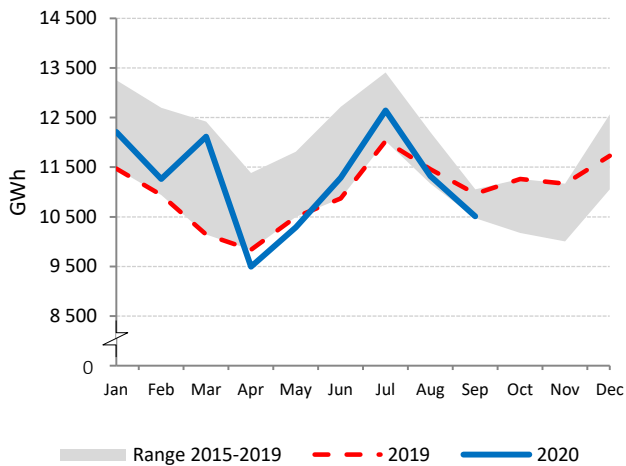
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	6 818	-4.9%	-9.2%	64.9%	68 200	68 448	-0.4%	91 369	69.0%
Coal	86	-55.0%	-83.1%	0.8%	2 066	884	133.7%	1 187	0.9%
Oil	174	-31.5%	-56.6%	1.7%	3 180	2 604	22.1%	3 282	2.5%
Natural Gas	6 332	-3.3%	-0.7%	60.2%	61 524	63 803	-3.6%	85 282	64.4%
Combustible Renewables	226	32.1%	0.7%	2.2%	1 430	1 157	23.6%	1 618	1.2%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	889	0.7%	-1.2%	8.5%	8 023	5 778	38.9%	8 002	6.0%
Hydro	1 836	-20.3%	-3.6%	17.5%	17 581	20 242	-13.1%	27 253	20.6%
Wind	846	60.8%	-8.4%	8.0%	6 562	3 278	100.2%	4 960	3.7%
Solar	125	46.5%	44.7%	1.2%	778	473	64.5%	795	0.6%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	3 032	-1.7%	-3.4%	28.8%	26 350	25 149	4.8%	34 625	26.2%
NON-RENEWABLES	7 480	-5.0%	-8.6%	71.2%	74 794	73 069	2.4%	97 754	73.8%
TOTAL NET PRODUCTION	10 513	-4.1%	-7.1%		101 143	98 217	3.0%	132 379	

¹ current month to month of last year change

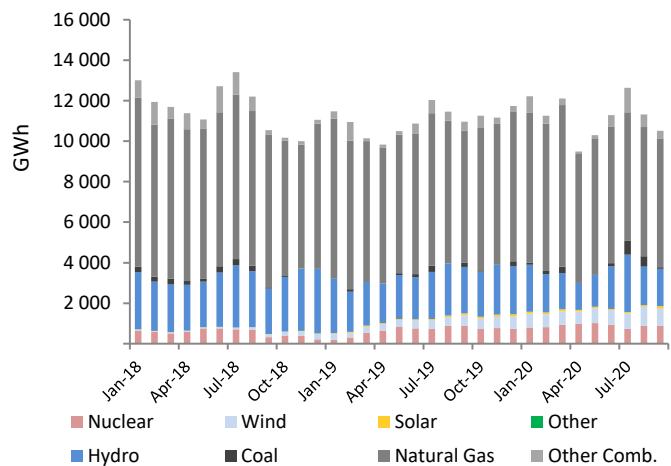
² month-to-month change

³ year-to-date compared to same period last year

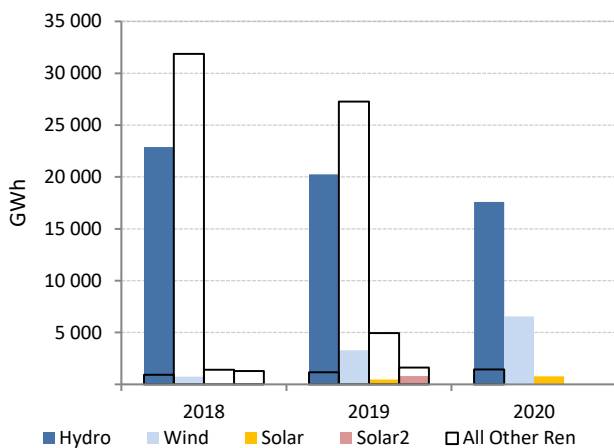
Electricity Production



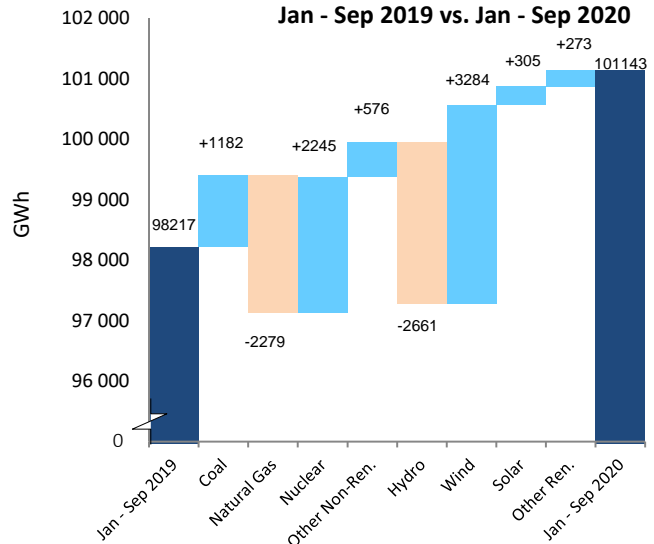
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



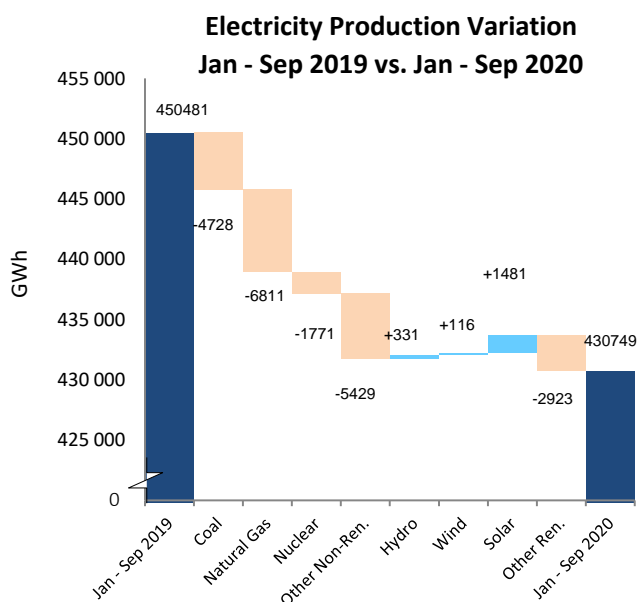
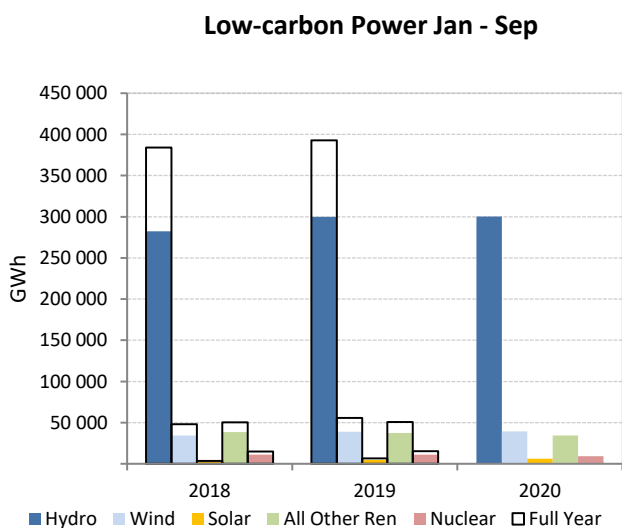
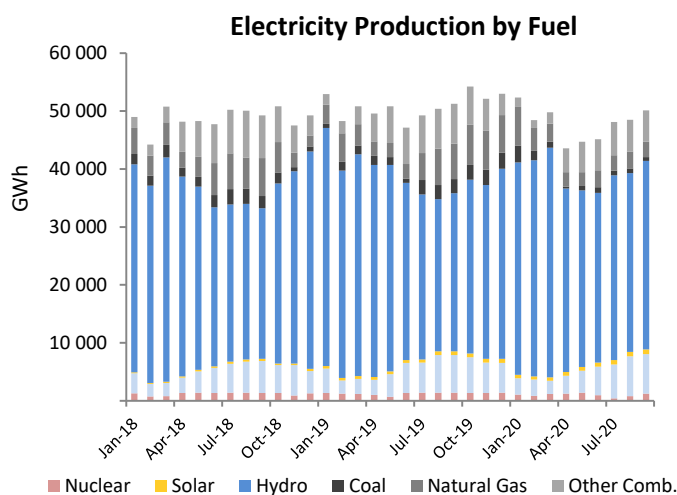
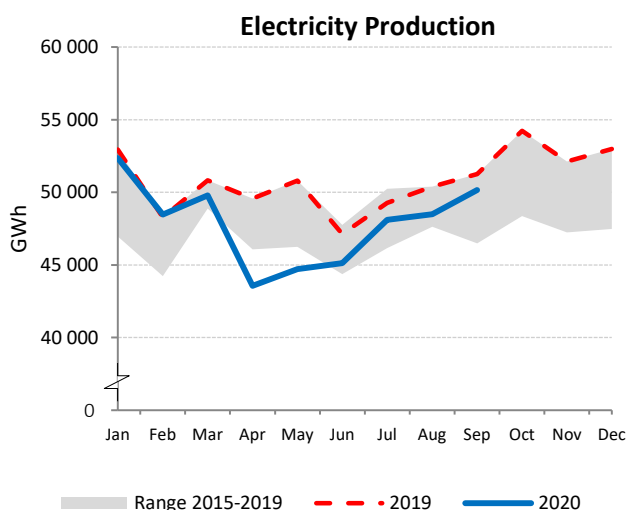
BRAZIL

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	8 759	-43.3%	-4.8%	17.5%	75 957	95 847	-20.8%	139 682	22.9%
Coal	675	-72.1%	-19.4%	1.3%	9 934	14 662	-32.2%	22 606	3.7%
Oil	114	-84.2%	2.3%	0.2%	1 833	7 262	-74.8%	9 595	1.6%
Natural Gas	2 639	-57.0%	-8.9%	5.3%	29 722	36 533	-18.6%	56 727	9.3%
Combustible Renewables	5 331	-13.4%	-0.5%	10.6%	34 468	37 390	-7.8%	50 753	8.3%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	1 265	-10.8%	53.8%	2.5%	9 326	11 097	-16.0%	15 224	2.5%
Hydro	32 518	19.1%	5.4%	64.8%	300 252	299 921	0.1%	392 716	64.4%
Wind	6 817	4.9%	-0.6%	13.6%	39 136	39 020	0.3%	55 571	9.1%
Solar	788	29.8%	4.0%	1.6%	6 076	4 595	32.2%	6 615	1.1%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	45 455	12.1%	3.7%	90.6%	379 933	380 927	-0.3%	505 656	82.9%
NON-RENEWABLES	4 693	-56.1%	0.6%	9.4%	50 816	69 554	-26.9%	104 153	17.1%
TOTAL NET PRODUCTION	50 148	-2.2%	3.4%		430 749	450 481	-4.4%	609 808	

¹ current month to month of last year change

² month-to-month change

³ year-to-date compared to same period last year



CHINA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	403 157	0.9%	-17.5%	63.7%	3 654 388	3 641 015	0.4%	4 929 609	69.1%
Coal ⁴	378 684	2.2%	-17.5%	59.9%	3 433 464	3 373 448	1.8%	4 567 347	64.0%
Oil ⁴	842	1.7%	-17.5%	0.1%	7 611	7 543	0.9%	10 213	0.1%
Natural Gas ⁴	15 794	-19.0%	-17.5%	2.5%	142 264	177 650	-19.9%	240 522	3.4%
Combustible Renewables ⁴	6 706	-14.9%	-17.5%	1.1%	60 802	71 738	-15.2%	97 127	1.4%
Other Combustibles ⁴	1 130	-3.2%	-17.5%	0.2%	10 247	10 635	-3.7%	14 399	0.2%
Nuclear	30 416	7.8%	-3.9%	4.8%	257 712	241 388	6.8%	331 265	4.6%
Hydro	148 595	20.9%	-1.6%	23.5%	967 402	973 625	-0.6%	1 254 465	17.6%
Wind	28 022	9.1%	-5.1%	4.4%	314 778	289 745	8.6%	401 643	5.6%
Solar	22 369	10.1%	1.0%	3.5%	192 546	167 235	15.1%	217 377	3.0%
Geothermal	10	-	-0.1%	0.0%	88	88	-0.7%	118	0.0%
Other Renewables	1	-	-	0.0%	8	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	205 703	16.4%	-2.4%	32.5%	1 535 625	1 502 432	2.2%	1 970 730	27.6%
NON-RENEWABLES	426 867	1.6%	-16.6%	67.5%	3 851 298	3 810 665	1.1%	5 163 747	72.4%
TOTAL NET PRODUCTION	632 570	6.0%	-12.5%		5 386 922	5 313 096	1.4%	7 134 477	

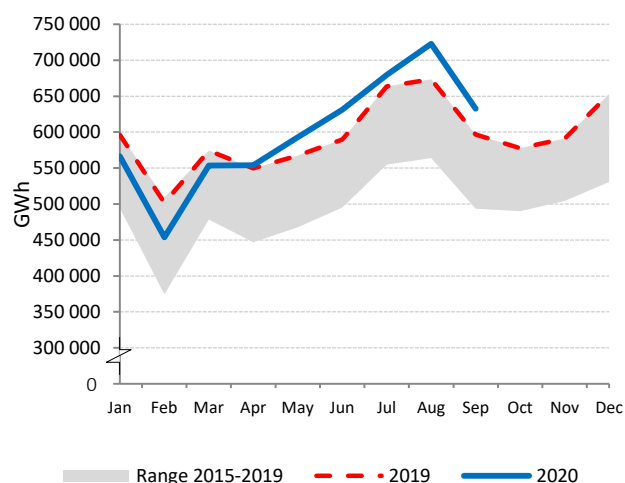
¹ current month to month of last year change

⁴ estimated from annual data

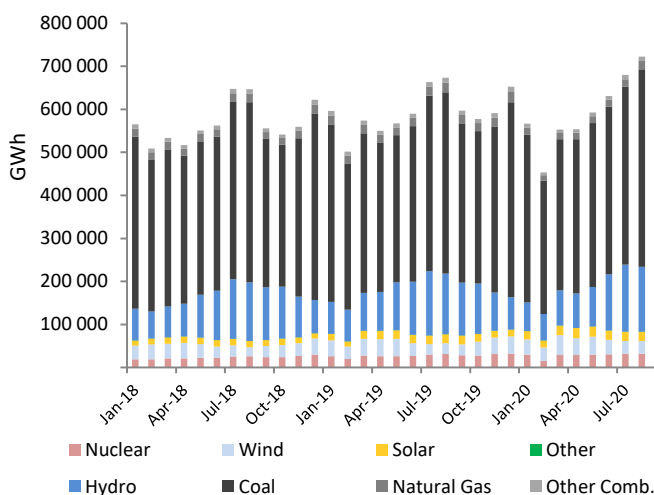
² month-to-month change

³ year-to-date compared to same period last year

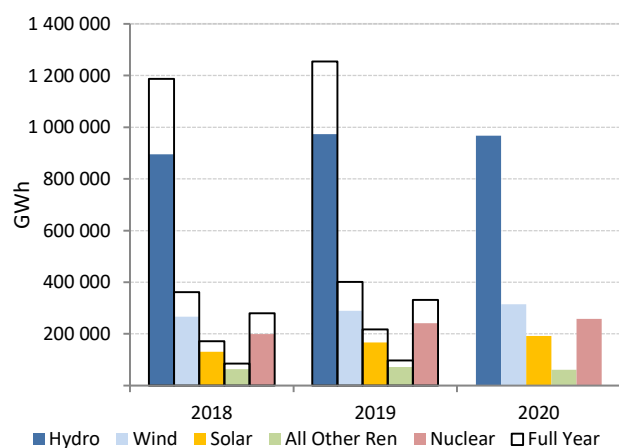
Electricity Production



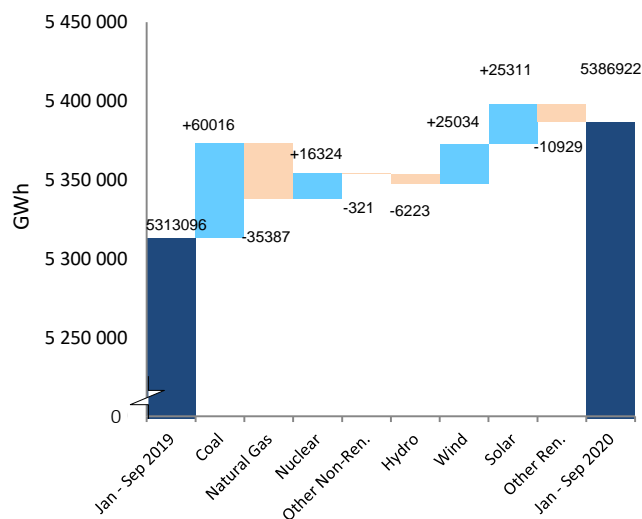
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



CROATIA

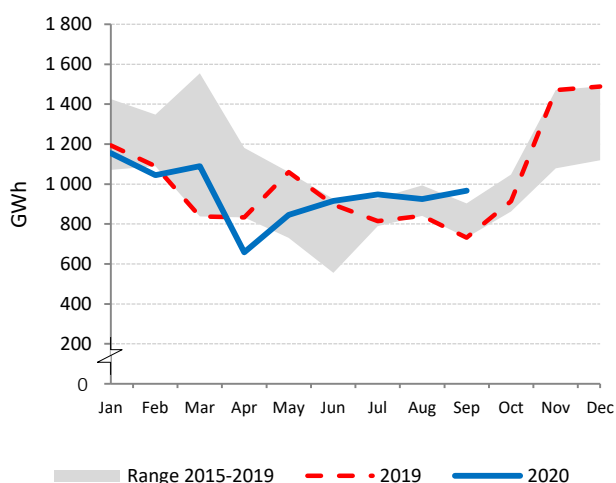
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	462	16.2%	-2.7%	47.7%	3 662	3 343	9.6%	4 749	39.0%
Coal	112	2.4%	-20.6%	11.6%	738	1 166	-36.7%	1 507	12.4%
Oil	1	-78.6%	7.5%	0.1%	6	20	-70.8%	32	0.3%
Natural Gas	274	26.1%	4.0%	28.3%	2 267	1 569	44.5%	2 405	19.8%
Combustible Renewables	74	11.7%	8.6%	7.7%	651	588	10.8%	804	6.6%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Hydro	357	53.3%	15.9%	36.9%	3 530	3 845	-8.2%	5 859	48.1%
Wind	136	53.1%	5.0%	14.0%	1 242	1 000	24.1%	1 431	11.8%
Solar	8	8.6%	-14.0%	0.9%	75	72	3.5%	83	0.7%
Geothermal	4	-7.5%	34.7%	0.5%	40	39	4.6%	51	0.4%
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	580	44.7%	11.8%	60.0%	5 539	5 544	-0.1%	8 229	67.6%
NON-RENEWABLES	387	17.1%	-4.6%	40.0%	3 011	2 755	9.3%	3 944	32.4%
TOTAL NET PRODUCTION	968	32.2%	4.6%		8 550	8 299	3.0%	12 173	

¹ current month to month of last year change

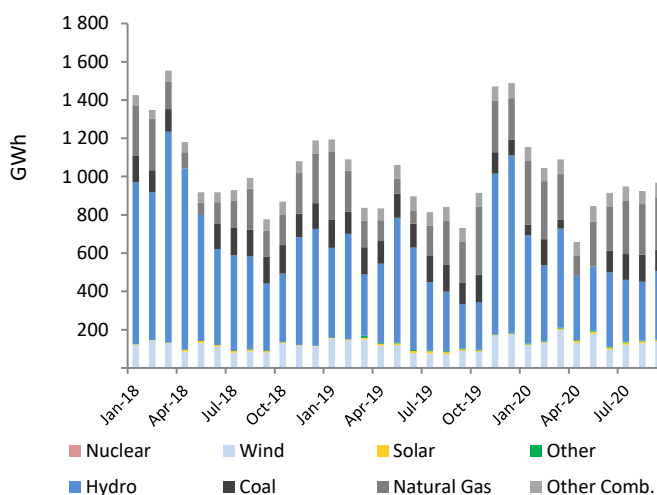
² month-to-month change

³ year-to-date compared to same period last year

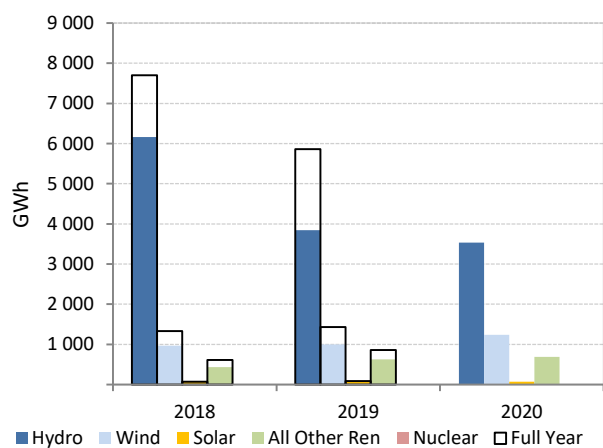
Electricity Production



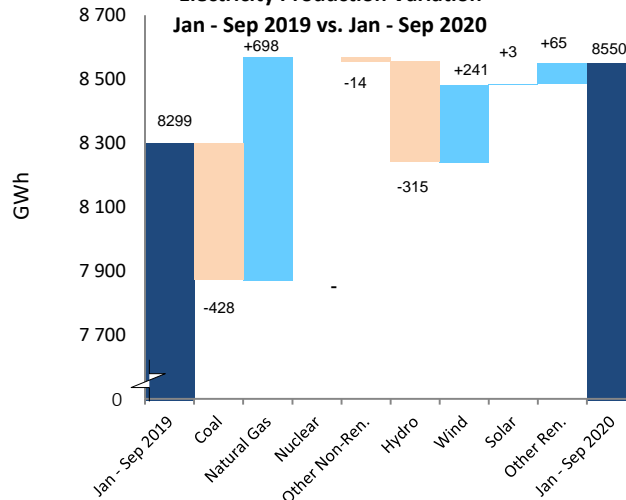
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation



INDIA

	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	95 847	9.4%	8.5%	74.1%	836 939	905 375	-7.6%	1 183 042	78.7%
Coal	87 174	9.4%	9.2%	67.4%	743 747	817 146	-9.0%	1 066 480	70.9%
Oil ⁴	682	51.6%	-6.8%	0.5%	6 149	5 446	12.9%	6 900	0.5%
Natural Gas	6 095	0.4%	1.3%	4.7%	55 572	50 483	10.1%	66 588	4.4%
Combustible Renewables	1 836	42.9%	7.7%	1.4%	30 921	31 757	-2.6%	42 347	2.8%
Other Combustibles ⁴	61	-	-	0.0%	551	543	1.4%	726	0.0%
Nuclear	3 675	-8.0%	8.1%	2.8%	31 165	31 445	-0.9%	42 599	2.8%
Hydro	20 898	-8.9%	-0.5%	16.1%	135 792	130 201	4.3%	167 836	11.2%
Wind	4 846	-18.0%	-53.4%	3.7%	52 769	54 069	-2.4%	63 537	4.2%
Solar	4 135	15.8%	-4.3%	3.2%	44 518	34 323	29.7%	46 226	3.1%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	31 714	-5.9%	-15.3%	24.5%	263 999	250 350	5.5%	319 945	21.3%
NON-RENEWABLES	97 687	8.2%	8.5%	75.5%	837 184	905 063	-7.5%	1 183 294	78.7%
TOTAL NET PRODUCTION	129 401	4.4%	1.5%		1 101 183	1 155 413	-4.7%	1 503 239	

¹ current month to month of last year change

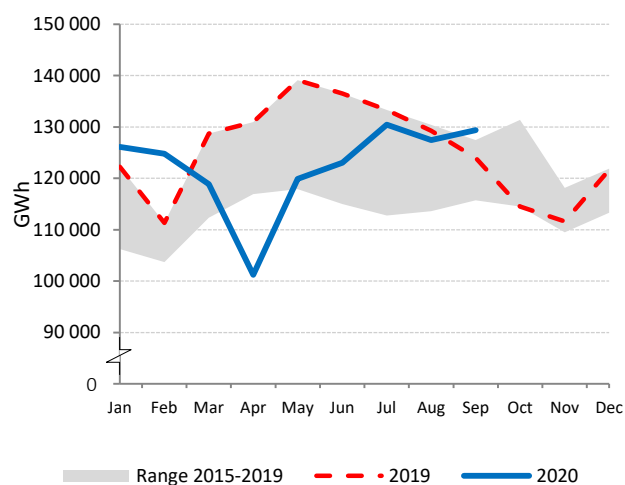
² month-to-month change

³ year-to-date compared to same period last year

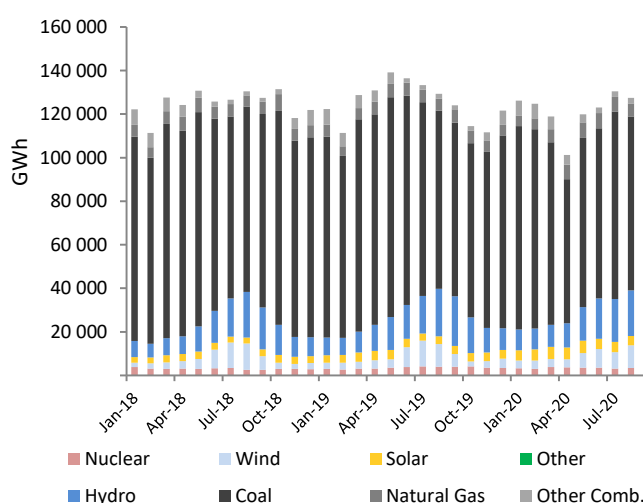
⁴ estimated from annual data

Distributed generation is estimated by the IEA Secretariat

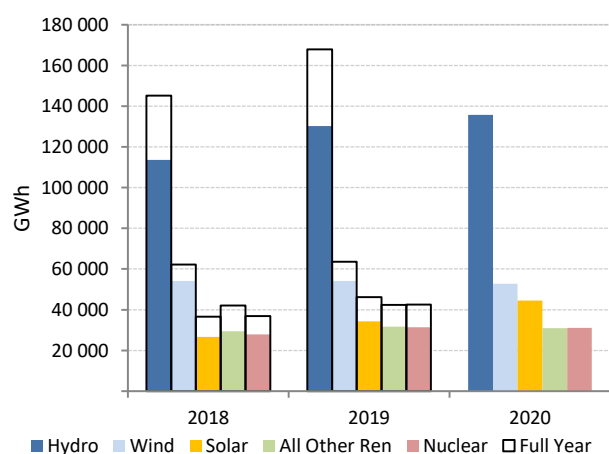
Electricity Production



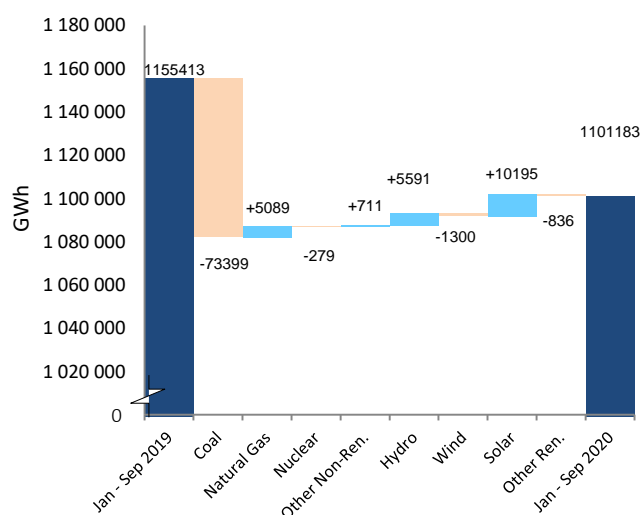
Electricity Production by Fuel



Low-carbon Power Jan - Sep



Electricity Production Variation Jan - Sep 2019 vs. Jan - Sep 2020



ROMANIA

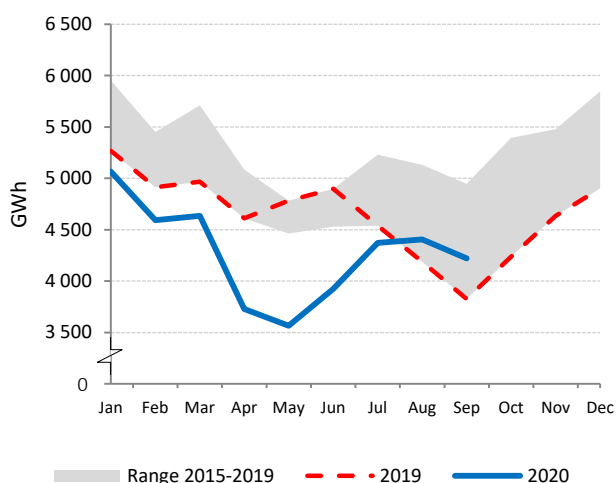
	Sep 2020				Year-to-Date			2019	
	GWh	change ¹	change ²	share	2020	2019	change ³	GWh	share
CONVENTIONAL THERMAL	1 552	-3.1%	-3.0%	36.8%	12 688	15 375	-17.5%	21 307	38.2%
Coal	790	-21.1%	-6.0%	18.7%	6 032	9 275	-35.0%	12 303	22.1%
Oil	22	-	-	0.5%	262	419	-37.5%	508	0.9%
Natural Gas	718	30.2%	-	17.0%	6 091	5 399	12.8%	8 089	14.5%
Combustible Renewables	22	-17.6%	16.7%	0.5%	303	283	7.1%	407	0.7%
Other Combustibles	-	-	-	-	-	-	-	-	-
Nuclear	913	16.2%	12.3%	21.6%	7 688	7 529	2.1%	10 354	18.6%
Hydro	1 035	25.8%	-23.6%	24.5%	11 431	12 755	-10.4%	15 619	28.0%
Wind	537	20.1%	24.6%	12.7%	5 179	4 825	7.3%	6 705	12.0%
Solar	185	8.9%	-11.2%	4.4%	1 522	1 507	0.9%	1 777	3.2%
Geothermal	-	-	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-	-	-
RENEWABLES	1 778	21.3%	-11.6%	42.1%	18 435	19 371	-4.8%	24 508	44.0%
NON-RENEWABLES	2 443	3.5%	2.1%	57.9%	20 073	22 621	-11.3%	31 254	56.0%
TOTAL NET PRODUCTION	4 221	10.3%	-4.2%		38 508	41 992	-8.3%	55 763	

¹ current month to month of last year change

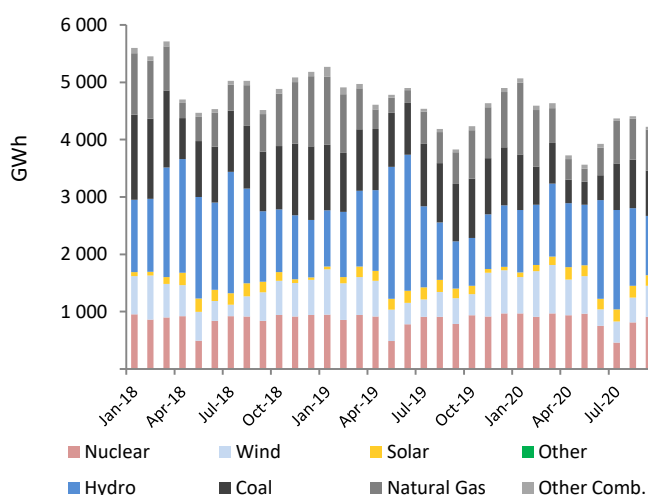
² month-to-month change

³ year-to-date compared to same period last year

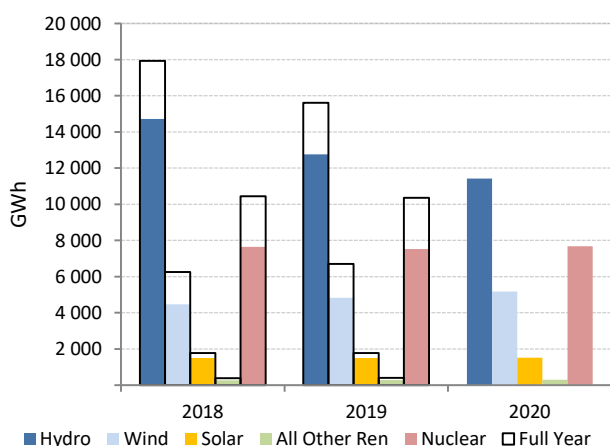
Electricity Production



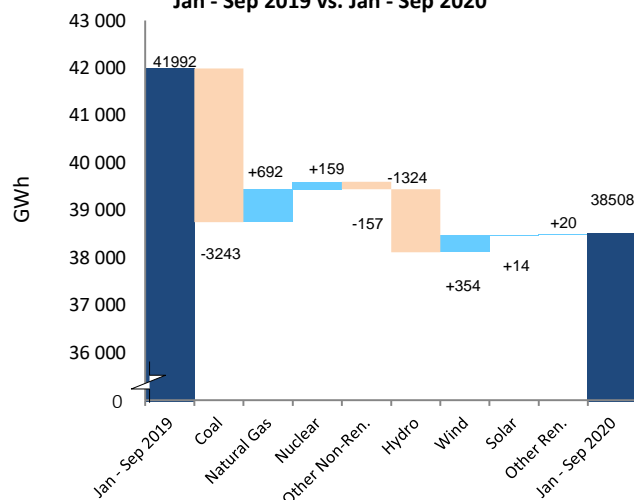
Electricity Production by Fuel



Low-carbon Power Jan - Sep



**Electricity Production Variation
Jan - Sep 2019 vs. Jan - Sep 2020**



PRINCIPLES AND DEFINITIONS

The IEA's Monthly Electricity Statistics provides timely electricity production and trade data for member countries of the Organisation for Economic Co-operation and Development (OECD). It aims to report as up-to-date and consistent information as possible for the last three months. It also provides previous annual data and year-to-date indicators.

Starting in April 2020, the Monthly Electricity Statistics include a separate annex containing a selection of 6 additional economies, including 3 IEA Association countries. This addition provides production data for the selected countries with the same aim of reporting as up-to-date and consistent information as possible for the last three months. It also provides previous annual data and year-to-date indicators. The countries shown in this annex are not included in the aggregate totals in other

General notes

- Electricity production and trade data are reported at the individual country level as well as in organisational and regional groupings. These groupings include: OECD Total, OECD Americas, OECD Asia Oceania, OECD Europe and IEA Total.
- The units are terawatt hours (TWh) for the regional groupings and gigawatt hours (GWh) for the individual countries.
- The grouping of electricity generation by source reflects available monthly data and/or small individual quantities.
- Definitions are consistent with the IEA's "Electricity and Heat" annual questionnaire. Statistics are subject to revision on official receipt of the annual questionnaire from national administrations or on improved data becoming available.
- To enable timely publication, the IEA may supplement national statistics with data from other sources.
- Where adequate information is not available from external sources, estimates have been made by the IEA. Methodological notes are provided in individual country pages or the country notes section.
- All figures for individual countries are reported to the nearest whole number and totals may not equal the sum of components due to rounding.
- Note that historic data are often recalculated. Therefore, the latest publication should be considered the most accurate. Regional and organisational summaries may also change based on country recalculations.
- Countries' submitted monthly data is adjusted proportionately to maintain consistency with the most recent annual data for each generation source.

Basic definitions

<i>Net Production</i>	Net generation excludes power station own use.
<i>Combustible Fuels/</i>	
<i>Conventional Thermal</i>	Production from fossil fuels (primary coal, coal products, peat and peat products, oil shale and oil sands, crude oil, NGL, oil products, natural gas) and combustible renewables and wastes (solid biofuels, biogases, liquid biofuels, industrial and municipal waste).
<i>Coal</i>	Production from primary coal, coal products, peat and peat products, oil shale and oil sands, and manufactured gas (such as coke-oven gas, blast-furnace gas and gas works gas).
<i>Oil</i>	Production from crude oil, natural gas liquids, refinery feedstocks, and petroleum products (such as refinery gases and fuel oil).
<i>Natural Gas</i>	Production from natural gas (including gas distributed via the grid that may contain very little amounts of blended other gases).
<i>Combustible Renewables</i>	Production from combustible renewables (such as solid biofuels, biogases, liquid biofuels, municipal renewable waste).
<i>Other Combustible Fuels (non-renewables)</i>	Production from all other combustible fuels (such as industrial and non-renewable municipal solid waste).

<i>Nuclear</i>	Electricity produced using heat generated from nuclear fission.
<i>Hydro</i>	Net generation from hydro facilities including pumped storage production.
<i>Wind</i>	Electricity generated in on-shore and off-shore wind turbines using kinetic energy of wind.
<i>Solar</i>	Electricity generated using solar radiation. Includes thermal and photovoltaic.
<i>Geothermal</i>	Electricity generated using heat emitted from within the earth's crust, usually in the form of hot water or steam.
<i>Other Renewables</i>	Electricity generated from tide, wave, ocean and other non-combustible sources.
<i>Non-Specified</i>	Not elsewhere reported electricity generation.

<i>Renewables</i>	Includes electricity generation from Hydro, Wind, Solar, Geothermal, Other Renewables and Combustible Renewables
<i>Non-Renewables</i>	Includes electricity generation from Coal, Oil, Natural Gas, Other Combustibles, Nuclear and Non-specified sources.
<i>Total Net Production</i>	The sum of indigenous net electricity production by energy source.
<i>Imports/ Exports</i>	Amounts of electricity that have crossed political boundaries of the country, a.k.a. physical flows, whether customs clearance has taken place or not.
<i>Net Exports</i>	Exports minus imports
<i>Electricity supplied</i>	Indigenous production + Imports - Exports. It includes Transmission and Distribution losses
<i>Used for Pumped Storage</i>	Electricity consumed by pumping water into a reservoir in mixed and pure pumped storage hydro plants.
<i>Transmission and Distribution Losses/ T&D Losses</i>	All losses due to transport and distribution of electrical energy. Losses in transformers which are not considered as integral parts of the power plants are also included.
<i>Electricity consumed</i>	Electricity available (calculated as: Indigenous production + Imports - Exports - used for pumped storage - Transmission and distribution losses)
<i>Low-carbon Power Generation</i>	Renewables plus Nuclear electricity generation.
<i>Year</i>	Calendar year (January to December) unless otherwise stated.
<i>Year-to-Date</i>	The sum of all months from the start of the calendar year to the latest month.

Regional Groupings

- OECD Total includes Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, the Slovak Republic, Slovenia, Switzerland, Turkey, the United Kingdom and the United States.
- Israel is not included in this report.
- OECD Americas includes Canada, Chile, Colombia Mexico and the United States.
- OECD Asia Oceania includes Australia, Japan, Korea and New Zealand.
- OECD Europe includes Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.
- IEA includes all countries included in OECD Total except Chile, Iceland, Latvia, Lithuania and Slovenia.

Publication details and further information

- This publication is released in the middle of each month onto the IEA's Website: <https://www.iea.org/reports/monthly-electricity-statistics/>
- Subscriptions to this publication are available at <https://www.iea.org/subscribe-to-data-services>
- Data should not be reproduced for publication without permission of the IEA.
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NOTES ON CHARTS AND MAPS

Tables

- The share of fuels in power generation for the previous year corresponds to the latest available year of annual data for the given granularity.

Chart Types

Electricity Production Chart

- Compares the evolution of total electricity production against the latest decade of historical data as well as the previous year.

Net Exports Chart

- Compares the evolution of net exports (exports - imports) of electricity against the latest decade of historical data as well as the previous year.

Electricity Production by Fuel Chart

- Shows the power fuel mix since January two years before the current year (25-36 months depending on the publication month).
- In this context, "Other Comb." includes Other Combustibles, Combustible Renewables and Oil.
- In this context, "Other" includes Geothermal, Other Renewables, Non Specified.
- Countries with an estimated combustibles' breakdown have a generic "Combustibles" category in this chart.

Low-carbon Power Chart

- Depicts low-carbon power generation for the year-to-date, the same period the last year as well as two years before. Also shows full year figures for the previous two years.
- When relevant, nuclear generation will be shown.
- In this context, "All Other Ren" includes Geothermal, Other Renewables and Combustible Renewables.

Electricity Production Variation Chart

- A waterfall chart showing how one can reach the electricity generation of the year-to-date having as a starting point the electricity generation of the same period in the previous year.
- In the case that coal and natural gas are only estimated, the waterfall chart for these categories will show no change and they will be aggregated under Other Non-Ren.

Fuel Switching Chart

- A chart comparing head-to-head two fuels (e.g. Natural Gas vs. Coal) or fuel categories (e.g. Renewables vs. Non-Renewables) and their 10 year ranges as well as the previous year.

Maps

- The maps in the main report are solely for illustrative purposes and currently cover trade in OECD Europe.
- No electricity trade takes place in OECD Asia Oceania countries.
- **Map 1:** Electricity Trade by country in the current month year versus the same month last year.
- **Map 2:** Electricity Trade by country Year-to-Date versus the same period last year.
- Iceland is not displayed in the OECD Europe maps as it does not trade electricity.

COUNTRY NOTES

Monthly Electricity Statistics is consistent with historical annual data.

Please refer to Principles and Definitions.

For certain countries the most recent data may be estimated. See below for details.

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AUSTRALIA

Excludes the overseas territories.

Monthly data are adjusted according to data submitted on a fiscal year basis beginning 1st of July and ending 31st of June.

Monthly reporting did not include production from other combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2009.

Monthly reporting did not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2004 until December 2015.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January until December 2004 until December 2015.

Annual data shown are the sum of months and may differ from publications referring to Australian fiscal year (July-June).

AUSTRIA

Monthly reporting does not include production from geothermal, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

The last coal power plant in Austria closed in April 2020. From then on, coal production comes from autoproducer CHP plants and is mainly from coal products.

BELGIUM

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2005 until December 2005.

Monthly reporting did not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission from January 2005 to December 2013.

The last main activity coal power plant closed in March 2016. From then on, coal production in Belgium is mainly from manufactured gases.

CANADA

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until August 2011.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2007.

Monthly reporting did not include production from other non combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2007.

Continually increasing levels of wind and solar coverage since January 2017 until December 2018.

New methodology and higher coverage since April 2019 (starting with MES January 2019 publication). Reviewed data back to January 2016.

CHILE

Net production is estimated from monthly submission of gross production until December 2010.

Monthly reporting does not include trade data, therefore they are estimated by the IEA Secretariat based on annual submission.

Annual data for 2014 were estimated by the IEA Secretariat.

Chile was added to the MES report in February 2011. Historical data are available only from January 2006.

COLOMBIA

Colombia was included in the MES Report in November 2020 becoming an OECD Member Country in April 2020.

Monthly reporting includes data from January 2014 onwards.

Monthly submissions are presented in gross values. The values in the MES report are net and are estimated by the IEA Secretariat.

Monthly submissions only include autoproduction that is injected back into the grid. Other autoproduction is estimated by the IEA Secretariat. This includes autoproduction from the hydrocarbon sector.

CZECH REPUBLIC

Monthly reporting did not include production from other non combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission from January 2004 until December 2008.

DENMARK

Excludes the Faroe Islands and Greenland.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2010.

Monthly reporting did not include production from other non combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2004.

ESTONIA

Net production is estimated from monthly submission of gross production by the IEA Secretariat.

Estonia was added to the MES report in April 2011. Historical data are available only from January 2006.

FINLAND

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2000.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission from January 2000.

FRANCE

Includes Monaco. Since January 2018 it includes the French overseas territories: French Polynesia, Guadeloupe, Guyane, Martinique, New Caledonia, Reunion, Saint Pierre and Miquelon.

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2000.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2000.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2004.

GERMANY

Combustible Fuels production is estimated from monthly submissions of production from main electricity producers.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2001.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2001.

Due to an increase in survey coverage since January 2017, the level of production and the growth rate shown may be different than actual.

GREECE

Monthly reporting did not include production from other combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission from January 2008 until December 2009.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2004 until December 2010.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2007.

HUNGARY

Net production was estimated from monthly submission of gross production through December 2015.

Monthly reporting does not include production from oil, therefore it is estimated by the IEA Secretariat based on annual submission since January 2009.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2008 until December 2010.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2005.

ICELAND

Net production has been estimated from monthly submission of gross production through December 2015 by the IEA Secretariat.

IRELAND

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January until December 2001.

ITALY

Includes San Marino and the Vatican.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2005.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2005 until December 2009.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2005 until December 2009.

JAPAN

Monthly data are adjusted according to data submitted on a fiscal year basis beginning 1st of April and ending 31st of March.

Net production is estimated from monthly submission of gross production of main electricity producers.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2002.

Annual data shown are the sum of months and may differ from publications referring to Japanese fiscal year (April-March).

Since April 2017 electricity generation from biomass and was is reported in the coal category if it's co-fired with this fuel, and in combustible renewables if the combustion is mono-fuel.

Since April 2017 coal category included coal, bituminous mixture, natural gas (other than LNG), coke-oven gas and city gas.

Hydro generation includes plants with capacity of 1MW and over.

KOREA

Net production is estimated from monthly submission of gross production by the IEA Secretariat.

Monthly reporting of electricity production does not include autoproducers, therefore it is estimated by the IEA Secretariat based on annual submission.

Monthly reporting does not include production from wind, therefore it is estimated by the IEA Secretariat based on annual submission since January 2004.

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2004.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2004.

LATVIA

Latvia was added to the MES report in January 2017. Historical data are available only from January 2010.

The strong hydro performance in 2017-2018 agrees with historical patterns and is due to environmental reasons, most notably the increased inflow in the Daugava River.

LITHUANIA

Monthly data available since January 2008.

LUXEMBOURG

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

Production data for March 2018 are estimated by the IEA Secretariat.

The Twinerg CCGT plant has been idle since April 2016 and was decommissioned in October 2016. This has caused decreased production from combustible fuels and, consequently, a decrease in exports.

MEXICO

Monthly reporting of electricity production does not include autoproducers, therefore it is estimated by the IEA Secretariat based on annual submission.

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission from January 2003 - December 2013.

Monthly reporting does not include production from wind, therefore it is estimated by the IEA Secretariat based on annual submission from January 2003 - December 2013. Since December 2018 the data submission includes wind data, so it is no longer estimated.

Installations under 500 kW are not included in the reporting data, therefore it is estimated by the IEA Secretariat based on annual submission.

Electricity trade data is estimated by Mexico administration. It may be inconsistent with US data flows. This data is currently under review.

In December 2018 a new data source was used by Mexico and some data are under review and improvement, therefore 2017 and 2018 data may be inconsistent with previous publications.

Monthly electricity production data does not include trade data and transmission and distribution losses which are estimated by the IEA Secretariat.

NETHERLANDS

Excludes Suriname and the territory of the Former Netherlands Antilles.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2000.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2000 until December 2009.

There was no nuclear production in May and June 2017 due to plant maintenance. The nuclear production resumed in July 2017.

NEW ZEALAND

Monthly submissions only include main electricity producers, which supposes a 95% coverage. The rest of the electricity generation is estimated by the IEA Secretariat based on the annual submissions.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2002.

NORWAY

Net production is estimated from monthly submission of gross production through December 2015 by the IEA Secretariat.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

Natural gas figures for May and June 2018 are confidential.

POLAND

Monthly reporting does not include production from oil, therefore it is estimated by the IEA Secretariat based on annual submission since January 2009 until December 2016.

Oil figures are confidential since January 2017.

PORTUGAL

Includes the Açores and Madeira since January 2015.

Monthly reporting did not include production from geothermal, therefore it is estimated by the IEA Secretariat based on annual submission since January 2004 until December 2014.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2004 until December 2008.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2004 until December 2008.

SLOVAK REPUBLIC

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission since January 2010 until December 2016.

Monthly reporting does not include production from wind, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

Monthly reporting does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2003.

SLOVENIA

Slovenia was added to the MES report in April 2011. Historical data are available only from January 2009.

SPAIN

Includes the Canary Islands, Balear Islands, Ceuta and Melilla.

Monthly reporting did not include production from other non combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission since January 2004 until December 2015.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2004 until December 2008.

SWEDEN

Monthly reporting does not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission since January 2000.

The last coal-fired power plant in Sweden closed in April 2020.

SWITZERLAND

Excludes Liechtenstein.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2009.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2009.

In 2016 and 2017 a small nuclear power plant was out-of-order in the second half of the year, and restarted in March 2018. In addition, a big nuclear power plant had in the second half of 2016 and 2017 a longer revision period in contrast to the normal revision in 2018.

TURKEY

Monthly submission does not include production from other non combustible fuels, therefore it is estimated by the IEA Secretariat.

UNITED KINGDOM

Monthly reporting does not include production from other combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2001.

Monthly reporting did not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission from January 2001 until December 2009.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2001 until December 2006.

Monthly reporting did not include exports, therefore they were estimated by the IEA Secretariat based on annual submission from January 2001 until December 2002.

UNITED STATES

Includes the 50 States, the District of Columbia and Puerto Rico.

Monthly reporting did not include production from geothermal, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2005.

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2005.

Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2005.

Monthly reporting did not include production from other non combustible fuels, therefore it was estimated by the IEA Secretariat based on annual submission from January 2003 until December 2005.

Electricity trade data has been estimated by the U.S. administration since July 2017. It may be inconsistent with the trade data from Mexico. This data is currently under review.

Selected Association countries and other non-OECD Economies

Monthly Electricity Statistics is consistent with historical annual data.

Monthly Electricity Statistics for this annex only cover production data, as trade data is not available for all considered countries

ARGENTINA

Monthly production data only include main electricity producers. The rest of the electricity generation is estimated by the IEA Secretariat based on the annual submissions.

Monthly reporting includes Paraguayan hydro production from the Yacyreta binational dam. The Paraguayan share is estimated by the IEA Secretariat then discounted from the total Argentinian hydro production.

BRAZIL

Monthly production data only include main electricity producers. The rest of the electricity generation is estimated by the IEA Secretariat based on the annual submissions.

Monthly reporting includes Paraguayan hydro production from the Itaipu binational dam. The Paraguayan share is estimated by the IEA Secretariat then discounted from the total Brazilian hydro production.

CHINA

Raw monthly production data is collected from the National Bureau of Statistics in gross values. All the data in the MES Report is presented in net values, therefore Chinese net production data is calculated based on IEA Secretariat estimates.

Raw production data for the months of January and February is reported combined. The IEA Secretariat have estimated production data for these two months based on annual data and the FGE China Gas Monthly Report.

Monthly reporting did not include disaggregated production from combustible fuels, therefore it is estimated by the IEA Secretariat based on annual data.

Monthly reporting did not include production from geothermal, therefore it is estimated by the IEA Secretariat based on annual data.

Monthly reporting did not include production from other renewables sources, therefore it is estimated by the IEA Secretariat based on annual data.

CROATIA

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2015 until December 2016.

From January 2016 onwards, solar production was included in the monthly reporting.

INDIA

Raw monthly production data is collected from the Central Electricity Authority in gross values. All the data in the MES Report is presented in net values, therefore Indian net production data is calculated based on IEA Secretariat estimates.

Monthly data are adjusted according to data submitted on a fiscal year basis beginning 1st of April and ending 31st of March.

Monthly production data only include main electricity producers. The rest of the electricity generation is estimated by the IEA Secretariat based on the annual submissions.

Monthly reporting did not include production from other combustible fuels, therefore it is estimated by the IEA Secretariat based on annual data.

ROMANIA

Monthly reporting did not include production from solar, therefore it was estimated by the IEA Secretariat based on annual submission from January 2015 until December 2016.

From January 2016 onwards, solar production was included in the monthly reporting.

Statistics report

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