# Monthly electricity statistics

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With data up to: January 2020

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### MONTHLY ELECTRICITY STATISTICS

#### January 2020

#### HIGHLIGHTS

#### OECD

- In January 2020, total net electricity production was 929.7 TWh, 4.2% lower than in January 2019 and 2.7% higher than in December 2019.
- Renewable production increased by 6.0% compared to January 2019 and was 274.3 TWh. The renewable share of total electricity production was 29.5%. Wind and solar productions rose by respectively 14.9% and 22.7% compared to January 2019, continuing the trend of higher production in the OECD seen throughout 2019.
- Conventional thermal production in January 2020 was 506.6 TWh, 9.1% or 50.6 TWh lower than in January 2019. This decrease in conventional thermal production is a result of lower coal production, which was 23.3% lower in January 2020 compared to January 2019.

#### **OECD** Americas

- Total net production in OECD Americas was 439.5 TWh in January 2020, 4.3% lower than in January 2019 and 0.9% higher than in December 2019. Renewable production was 117.6 TWh up by 1.7% compared to January 2019 while conventional production decreased by 8.6% compared to January 2019 and was 243.0 TWh.
- In the United States, conventional thermal electricity production was 206.2 TWh in January 2020, 10.2% lower than in January 2019. Coal production was at record low 67.9 TWh, having dropped by 34.9% in January 2020 compared to January 2019 and by 10.0% compared to December 2019, continuing the trend of lower coal production seen throughout 2019. As a result of this sharp decrease in coal production and higher than average temperatures, conventional thermal production was the lowest recorded for the month of January.

#### **OECD** Asia/Oceania

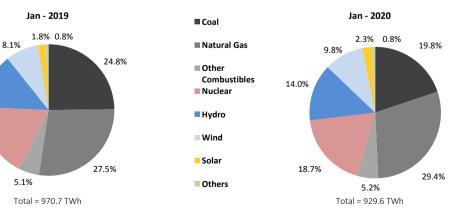
- Net electricity production was 164.3 TWh in January 2020, 3.6% higher than in December 2019 and 3.9% lower than in January 2019. Renewable production increased by 3.8 TWh in January 2020 compared to January 2019 and accounted for 15.5% of the total electricity mix. Non-renewables production decreased by 10.4 TWh in January 2020 compared to January 2019, mainly because of lower conventional thermal production, which was 124.2 TWh in January 2020 compared to 131.3 in January 2019.
- In Australia, total renewable production continued increasing in January 2020 reaching 5.0 TWh or 23.3% of total electricity production, driven mainly by increases in wind and solar productions. Wind production was 25.0% higher than in January 2019. Solar production was 13.2% higher in January 2020 compared to January 2019.
- In Korea, total electricity production was 47.9 TWh, 6.9% lower in January 2020 compared to January 2019 as a consequence of lower conventional thermal production, which decreased by 8.3% compared to January 2019. In December 2019, 10 coal plants were shut down, as part of Korea's anti-pollution campaign. Production from coal remained the primary source of electricity production in January 2020 although it dropped by 16.8% compared to January 2019, reaching its lowest level for the month of January.

#### **OECD** Europe

13.6%

18.3%

- In January 2020, OECD Europe produced 325.9 TWh of electricity, 4.3% less than in January 2019. As January 2020 was one of the warmest
  month ever recorded, there was a decrease in electricity demand. Conventional thermal production in OECD Europe was 139.1 TWh in January
  2020, down by 12.9% compared to January 2019, and nuclear production was 4.8% lower in January 2020 compared to January 2019.
  Renewable production on the other hand was 131.3 TWh, 8.0% higher in January 2020 compared to January 2019.
- In the Netherlands, coal production was 841.6 GWh in January 2020, down by 66.0% compared to January 2019 and by 53.2% compared to December 2019, continuing the downwards trends seen throughout 2019. Production from coal accounted for 7.7% of the total mix in January 2020, compared to 21.8% in January 2019.
- In Finland, wind production was the highest ever recorded in January 2020, with 982.9 GWh. Production more than doubled compared to January 2019, and increased by 39.5% compared to December 2019. In late 2019, new wind capacity was added, and as a result, total renewable production was also at a record high in January 2020, accounting for 49.2% of the total electricity mix.



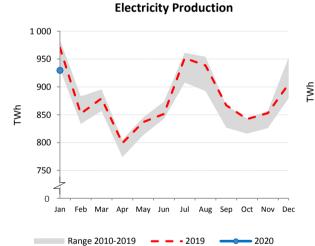
#### OECD Electricity Production by Fuel Type Year-to-Date Comparison

		Jan 2020				2019			
	TWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>		
CONVENTIONAL THERMAL	506.3	-9.1%	2.7%	54.5%	557.2	5 913.6	56.1%		
Coal <sup>5</sup>	184.3	-23.4%	-3.3%	19.8%	240.8	2 327.6	22.1%		
Oil <sup>5</sup>	17.0	-3.3%	14.6%	1.8%	17.6	182.9	1.7%		
Natural Gas⁵	273.4	2.3%	6.7%	29.4%	267.4	3 061.0	29.0%		
Combustible Renewables <sup>5</sup>	27.9	5.3%	-1.1%	3.0%	26.5	301.0	2.9%		
Other Combustibles <sup>5</sup>	3.6	-28.6%	10.0%	0.4%	5.0	41.2	0.4%		
Nuclear	173.4	-2.4%	3.6%	18.6%	177.7	1 899.8	18.0%		
Hydro	130.3	-1.1%	-0.5%	14.0%	131.7	1 445.7	13.7%		
Wind	90.8	14.9%	2.6%	9.8%	79.1	832.9	7.9%		
Solar	21.0	22.7%	17.9%	2.3%	17.1	365.1	3.5%		
Geothermal	4.2	-3.1%	0.4%	0.5%	4.4	50.6	0.5%		
Other Renewables	0.1	-0.9%	-	0.0%	0.1	1.2	0.0%		
Non-Specified	3.6	4.2%	2.3%	0.4%	3.4	39.2	0.4%		
RENEWABLES	274.3	6.0%	1.7%	29.5%	258.8	2 996.4	28.4%		
NON-RENEWABLES	655.3	-7.9%	3.1%	70.5%	711.9	7 551.7	71.6%		
TOTAL NET PRODUCTION	929.6	-4.2%	2.7%		970.7	10 548.1			
+ Imports	45.4	2.5%	6.0%		44.2	486.9			
- Exports	45.5	4.8%	6.0%		43.4	475.0			
= ELECTRICITY SUPPLIED	929.5	-4.3%	2.7%		971.5	10 560.0			
<ul> <li>Used for pumped storage<sup>4</sup></li> </ul>	6.7	3.3%	-10.0%		6.5	79.5			
- T&D Losses <sup>4</sup>	59.4	-5.8%	-0.4%		63.0	668.4			
= ELECTRICITY CONSUMED	863.4	-4.3%	3.0%		902.0	9 812.1			

<sup>1</sup> current month to month of last year change

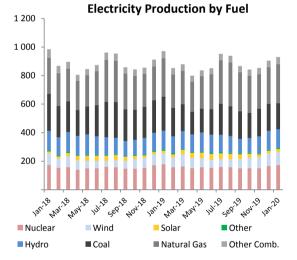
<sup>2</sup> month-to-month change

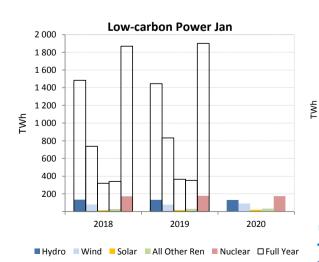
<sup>3</sup> referring to annual 2019 data



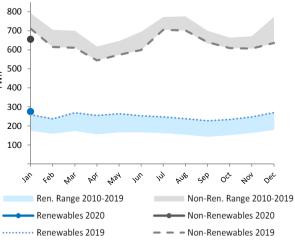
<sup>4</sup> estimated for certain countries

 $^{\rm 5}$  the breakdown of conventional thermal is estimated from annual data for Canada, Estonia and Italy









		Jan 2020				2019	
	TWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	243.0	-8.7%	-1.2%	55.3%	266.1	3 102.5	59.1%
Coal <sup>5</sup>	76.7	-32.2%	-9.1%	17.5%	113.2	1 105.2	21.1%
Oil <sup>5</sup>	6.9	17.6%	10.1%	1.6%	5.9	81.9	1.6%
Natural Gas⁵	152.3	9.1%	2.7%	34.6%	139.6	1 831.0	34.9%
Combustible Renewables⁵	6.3	-6.4%	0.3%	1.4%	6.7	74.5	1.4%
Other Combustibles <sup>5</sup>	0.9	4.0%	-0.7%	0.2%	0.8	9.9	0.2%
Nuclear	84.8	1.3%	1.9%	19.3%	83.7	921.7	17.6%
Hydro	68.0	-2.8%	4.7%	15.5%	70.0	717.7	13.7%
Wind	33.5	9.1%	2.2%	7.6%	30.7	354.8	6.8%
Solar	8.2	28.9%	21.8%	1.9%	6.3	122.5	2.3%
Geothermal	1.7	-11.3%	-1.0%	0.4%	1.9	21.2	0.4%
Other Renewables	-	-	-	-	0.0	0.0	0.0%
Non-Specified	0.4	-23.0%	-10.9%	0.1%	0.5	5.1	0.1%
RENEWABLES	117.6	1.7%	4.7%	26.8%	115.6	1 290.7	24.6%
NON-RENEWABLES	321.9	-6.3%	-0.5%	73.2%	343.6	3 954.9	75.4%
TOTAL NET PRODUCTION	439.5	-4.3%	0.9%		459.2	5 245.6	
+ Imports	5.5	-12.0%	27.9%		6.3	68.8	
- Exports	6.1	2.3%	-9.2%		6.0	73.4	
= ELECTRICITY SUPPLIED	438.9	-4.5%	1.3%		459.5	5 241.0	
- Used for pumped storage <sup>4</sup>	2.0	2.0%	4.7%		1.9	26.2	
- T&D Losses <sup>4</sup>	28.9	-10.7%	-4.5%		32.3	358.3	
= ELECTRICITY CONSUMED	408.1	-4.0%	1.7%		425.3	4 856.4	

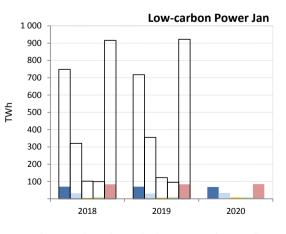
## **OECD** Americas

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

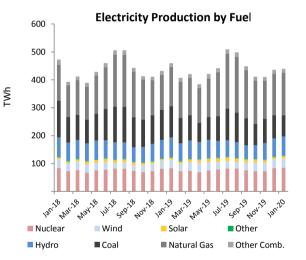
**Electricity Production** 550 500 450 TWh 400 350 0 Jan Feb Mar Anr Ma lun Iul Aug Sen Oct Nov Dec Range 2010-2019 2019 2020



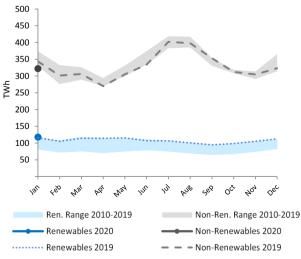
■ Hydro ■ Wind ■ Solar ■ All Other Ren ■ Nuclear □ Full Year

<sup>4</sup> estimated for certain countries

<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Canada







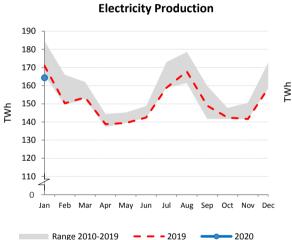
## **OECD** Asia Oceania

		Jan 2020				2019		
	TWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>	
CONVENTIONAL THERMAL	124.2	-5.4%	3.5%	75.6%	131.3	1 307.4	72.1%	
Coal	61.4	-6.8%	1.5%	37.4%	65.9	685.2	37.8%	
Oil	6.1	-12.1%	34.5%	3.7%	6.9	52.0	2.9%	
Natural Gas	52.2	-3.8%	3.8%	31.8%	54.2	522.4	28.8%	
Combustible Renewables	4.4	67.0%	-3.3%	2.7%	2.7	42.5	2.3%	
Other Combustibles	0.1	-95.7%	-4.2%	0.0%	1.6	5.5	0.3%	
Nuclear	16.4	-10.0%	4.4%	10.0%	18.2	202.1	11.1%	
Hydro	9.4	5.9%	-1.5%	5.7%	8.9	132.4	7.3%	
Wind	3.4	17.5%	3.0%	2.1%	2.9	34.1	1.9%	
Solar	7.4	16.0%	9.7%	4.5%	6.4	99.5	5.5%	
Geothermal	0.8	-1.5%	-2.1%	0.5%	0.8	9.7	0.5%	
Other Renewables	0.0	-	-	0.0%	0.0	0.5	0.0%	
Non-Specified	2.7	10.8%	5.9%	1.7%	2.5	28.0	1.5%	
RENEWABLES	25.4	17.6%	1.8%	15.5%	21.6	318.7	17.6%	
NON-RENEWABLES	138.9	-7.0%	3.9%	84.5%	149.3	1 495.1	82.4%	
TOTAL NET PRODUCTION	164.3	-3.9%	3.6%		171.0	1 813.7		
+ Imports	-	-	-		-	-		
- Exports	-	-	-		-	-		
= ELECTRICITY SUPPLIED	164.3	-3.9%	3.6%		171.0	1 813.7		
- Used for pumped storage <sup>4</sup>	1.2	11.8%	4.2%		1.0	12.2		
- T&D Losses <sup>4</sup>	5.8	8.9%	3.3%		5.3	62.0		
= ELECTRICITY CONSUMED	157.3	-4.4%	3.6%		164.6	1 739.5		

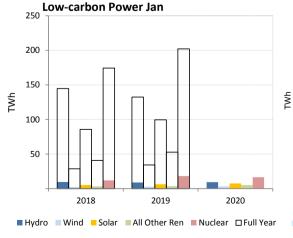
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

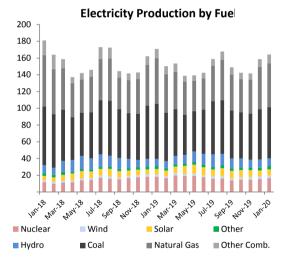
<sup>3</sup> referring to annual 2019 data

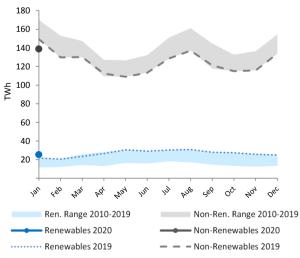


Range 2010-2019 - - 2019 -



<sup>4</sup> estimated for certain countries





**Renewables and Non-Renewables** 

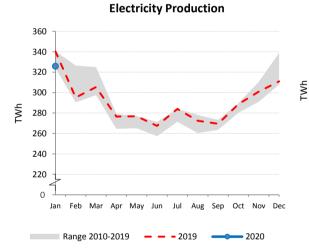
OECD E	urope
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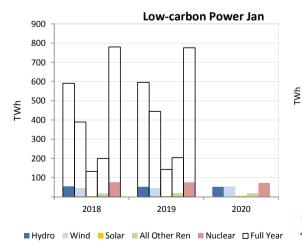
		Jan 2020				2019	
	TWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	139.1	-12.9%	9.4%	42.7%	159.8	1 503.7	43.1%
Coal <sup>5</sup>	46.2	-25.1%	1.1%	14.2%	61.8	537.3	15.4%
Oil <sup>5</sup>	4.0	-15.9%	-0.6%	1.2%	4.8	49.0	1.4%
Natural Gas⁵	69.0	-6.2%	19.7%	21.2%	73.5	707.6	20.3%
Combustible Renewables⁵	17.2	0.4%	-1.0%	5.3%	17.2	184.0	5.3%
Other Combustibles <sup>5</sup>	2.6	4.3%	14.6%	0.8%	2.5	25.8	0.7%
Nuclear	72.2	-4.8%	5.6%	22.2%	75.8	776.0	22.2%
Hydro	52.9	0.1%	-6.3%	16.2%	52.8	595.6	17.1%
Wind	54.0	18.6%	2.8%	16.6%	45.5	444.0	12.7%
Solar	5.4	23.6%	24.5%	1.7%	4.4	143.0	4.1%
Geothermal	1.8	5.3%	3.0%	0.5%	1.7	19.7	0.6%
Other Renewables	0.1	-	-	0.0%	0.1	0.7	0.0%
Non-Specified	0.5	-1.9%	-5.1%	0.1%	0.5	6.0	0.2%
RENEWABLES	131.3	8.0%	-0.9%	40.3%	121.6	1 387.0	39.8%
NON-RENEWABLES	194.6	-11.1%	8.9%	59.7%	218.9	2 101.7	60.2%
TOTAL NET PRODUCTION	325.9	-4.3%	4.8%		340.5	3 488.8	
+ Imports	39.8	5.0%	3.6%		37.9	418.1	
- Exports	39.4	5.2%	8.8%		37.4	401.6	
= ELECTRICITY SUPPLIED	326.3	-4.3%	4.1%		341.0	3 505.2	
- Used for pumped storage <sup>4</sup>	3.6	1.4%	-19.6%		3.5	41.0	
- T&D Losses <sup>4</sup>	24.7	-2.6%	3.9%		25.4	248.0	
= ELECTRICITY CONSUMED	298.0	-4.5%	4.5%		312.1	3 216.2	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

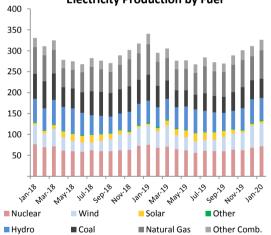
<sup>3</sup> referring to annual 2019 data

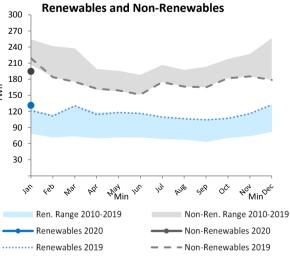




<sup>4</sup> estimated for certain countries

<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Estonia and Italy





**Electricity Production by Fuel** 

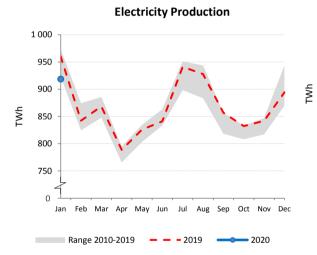
## **IEA** Total

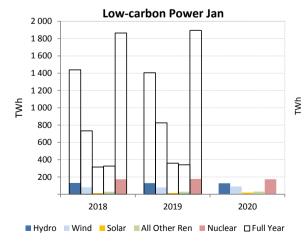
		Jan 2020				2019	
	TWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	501.2	-9.3%	2.7%	54.6%	552.4	5 850.8	56.2%
Coal <sup>5</sup>	181.9	-23.6%	-3.2%	19.8%	238.2	2 296.3	22.0%
Oil <sup>5</sup>	16.5	-5.7%	16.1%	1.8%	17.5	176.3	1.7%
Natural Gas⁵	271.8	2.3%	6.6%	29.6%	265.8	3 042.4	29.2%
Combustible Renewables⁵	27.4	5.3%	-1.3%	3.0%	26.0	294.7	2.8%
Other Combustibles⁵	3.6	-28.6%	10.0%	0.4%	5.0	41.1	0.4%
Nuclear	172.8	-2.5%	3.7%	18.8%	177.2	1 894.3	18.2%
Hydro	126.4	-1.4%	-0.6%	13.8%	128.2	1 405.3	13.5%
Wind	90.2	14.8%	2.7%	9.8%	78.6	826.2	7.9%
Solar	20.3	22.9%	18.8%	2.2%	16.5	358.6	3.4%
Geothermal	3.7	-3.6%	0.3%	0.4%	3.8	44.5	0.4%
Other Renewables	0.1	-0.9%	-	0.0%	0.1	1.2	0.0%
Non-Specified	3.6	4.2%	2.3%	0.4%	3.4	39.2	0.4%
RENEWABLES	268.1	5.9%	1.7%	29.2%	253.2	2 930.4	28.1%
NON-RENEWABLES	650.2	-8.0%	3.1%	70.8%	707.0	7 489.6	71.9%
TOTAL NET PRODUCTION	918.3	-4.4%	2.7%		960.2	10 420.0	
+ Imports	43.1	3.3%	5.9%		41.7	460.0	
- Exports	44.2	5.1%	6.3%		42.0	458.2	
= ELECTRICITY SUPPLIED	917.2	-4.4%	2.7%		959.8	10 421.8	
- Used for pumped storage <sup>4</sup>	6.6	2.5%	-10.1%		6.4	78.4	
- T&D Losses <sup>4</sup>	58.9	-5.6%	-0.4%		62.4	662.0	
= ELECTRICITY CONSUMED	851.7	-4.4%	3.0%		891.0	9 681.4	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

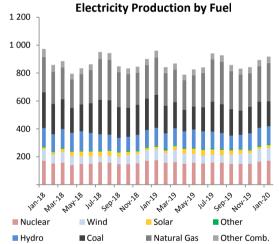
<sup>3</sup> referring to annual 2019 data

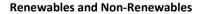


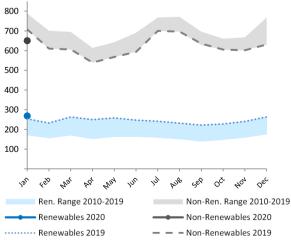


<sup>4</sup> estimated for certain countries

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







## **AUSTRALIA**

		Jan 2020				2019		
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>	
CONVENTIONAL THERMAL	16 791	-10.9%	6.0%	77.7%	18 854	196 063	79.0%	
Coal	12 651	-4.8%	3.9%	58.5%	13 283	140 760	56.7%	
Oil	269	-49.6%	33.7%	1.2%	533	4 615	1.9%	
Natural Gas	3 663	-23.6%	12.5%	17.0%	4 793	48 006	19.3%	
Combustible Renewables	209	-14.7%	-2.9%	1.0%	245	2 682	1.1%	
Other Combustibles	-	-	-	-	-	-	-	
Nuclear	-	-	-	-	-	-	-	
Hydro	1 152	-6.7%	12.3%	5.3%	1 235	14 478	5.8%	
Wind	1 843	25.0%	-3.2%	8.5%	1 475	21 143	8.5%	
Solar	1 823	13.2%	-8.9%	8.4%	1 610	16 611	6.7%	
Geothermal	-	-	-	-	-	-	-	
Other Renewables	-	-	-	-	-	-	-	
Non-Specified	-	-	-	-	-	-	-	
RENEWABLES	5 027	10.1%	-2.3%	23.3%	4 564	54 913	22.1%	
NON-RENEWABLES	16 583	-10.9%	6.1%	76.7%	18 609	193 381	77.9%	
TOTAL NET PRODUCTION	21 609	-6.7%	4.0%		23 173	248 294		
+ Imports	-	-	-		-	-		
- Exports	-	-	-		-	-		
= ELECTRICITY SUPPLIED	21 609	-6.7%	4.0%		23 173	248 294		
- Used for pumped storage <sup>4</sup>	17	-6.7%	-37.4%		18	295		
- T&D Losses <sup>4</sup>	1 067	-4.7%	-3.5%		1 120	12 608		
= ELECTRICITY CONSUMED	20 526	-6.8%	4.5%		22 036	235 392		

<sup>4</sup> estimated

25 000

20 000

15 000

10 000

5 000

Mar-18 Maying 141-28 Sepile

Jan 18

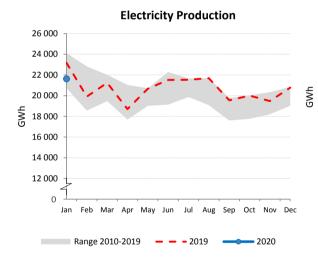
Nuclear

Hydro

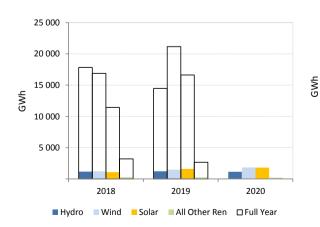
<sup>1</sup> current month to month of last year change

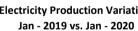
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data





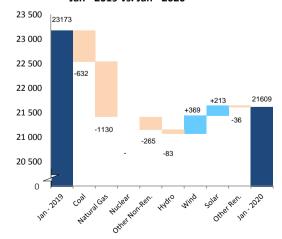




Nov-18

Wind

Coal



**Electricity Production Variation** 

Jan 19 Mar-19

Solar

Natural Gas

May 19 141-19 sept19 404.19 Jan 20

Other

Other Comb.

Electricity Production by Fue

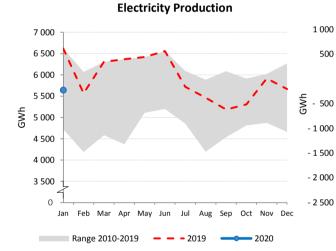
## **AUSTRIA**

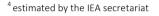
		Jan 2020				2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	2 639	2.8%	29.5%	46.8%	2 566	19 974	28.1%
Coal	287	-21.4%	7.7%	5.1%	365	3 257	4.6%
Oil	57	-12.8%	16.4%	1.0%	65	659	0.9%
Natural Gas	1 837	10.6%	42.9%	32.6%	1 661	10 773	15.2%
Combustible Renewables	401	-0.4%	9.1%	7.1%	403	4 527	6.4%
Other Combustibles	58	-19.8%	-17.8%	1.0%	72	757	1.1%
Nuclear	-	-	-	-	-	-	-
Hydro	2 547	-19.6%	-8.7%	45.2%	3 169	42 669	60.0%
Wind	407	-51.3%	-49.1%	7.2%	836	7 071	9.9%
Solar <sup>4</sup>	46	-	18.1%	0.8%	46	1 366	1.9%
Geothermal	0	-	-	0.0%	0	0	0.0%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	1	-8.4%	-9.4%	0.0%	1	12	0.0%
RENEWABLES	3 401	-23.6%	-14.9%	60.3%	4 454	55 634	78.3%
NON-RENEWABLES	2 239	3.5%	33.9%	39.7%	2 164	15 459	21.7%
TOTAL NET PRODUCTION	5 640	-14.8%	-0.5%		6 618	71 092	
+ Imports	3 047	4.5%	13.4%		2 916	26 047	
- Exports	1 957	-17.9%	24.8%		2 382	22 918	
= ELECTRICITY SUPPLIED	6 730	-5.9%	-0.8%		7 153	74 221	
- Used for pumped storage	346	-22.6%	-36.3%		447	4 826	
- T&D Losses	335	-5.1%	8.8%		353	3 350	
= ELECTRICITY CONSUMED	6 049	-4.8%	2.0%		6 352	66 045	

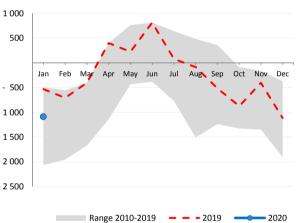
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

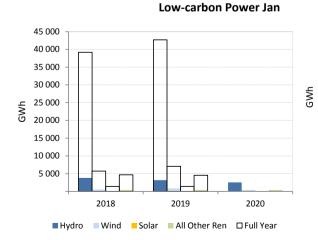
<sup>3</sup> referring to annual 2019 data

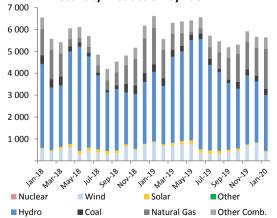






**Net Electricity Exports** 





#### **Electricity Production by Fuel**

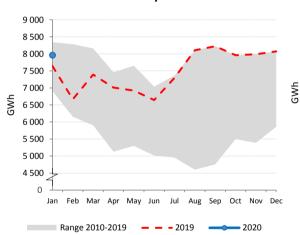
## BELGIUM

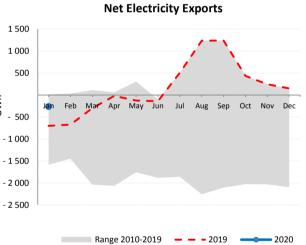
		Jan 2020				2019		
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>	
CONVENTIONAL THERMAL	3 372	-6.6%	21.0%	42.4%	3 610	33 333	37.1%	
Coal	196	-4.5%	12.0%	2.5%	205	2 435	2.7%	
Oil	1	-78.1%	-57.3%	0.0%	6	28	0.0%	
Natural Gas	2 578	-7.4%	27.5%	32.4%	2 784	24 589	27.3%	
Combustible Renewables	492	-1.3%	6.5%	6.2%	499	4 940	5.5%	
Other Combustibles	104	-9.6%	-16.4%	1.3%	115	1 340	1.5%	
Nuclear	3 078	5.2%	-17.8%	38.7%	2 925	41 616	46.3%	
Hydro	135	2.7%	1.0%	1.7%	131	1 123	1.2%	
Wind	1 251	45.6%	-2.8%	15.7%	859	9 359	10.4%	
Solar	92	34.5%	14.1%	1.2%	68	3 989	4.4%	
Geothermal	-	-	-	-	-	-	-	
Other Renewables	-	-	-	-	-	-	-	
Non-Specified	33	-29.3%	-21.7%	0.4%	47	495	0.6%	
RENEWABLES	1 970	26.5%	0.4%	24.7%	1 557	19 411	21.6%	
NON-RENEWABLES	5 990	-1.5%	-1.9%	75.3%	6 083	70 505	78.4%	
TOTAL NET PRODUCTION	7 960	4.2%	-1.4%		7 640	89 916		
+ Imports	1 213	-20.4%	-8.4%		1 523	12 734		
- Exports	951	15.7%	-35.4%		822	14 589		
= ELECTRICITY SUPPLIED	8 222	-1.4%	3.8%		8 341	88 060		
- Used for pumped storage	126	6.9%	-5.8%		118	1 162		
- T&D Losses	344	-1.4%	4.0%		349	3 675		
= ELECTRICITY CONSUMED	7 752	-1.6%	3.9%		7 874	83 224		

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

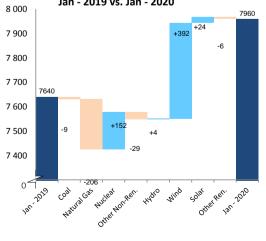
<sup>3</sup> referring to annual 2019 data





Low-carbon Power Jan 45 000 40 000 35 000 30 000 GWh 25 000 GWh 20 000 15 000 10 000 5 000 2018 2019 2020 ■ Hydro ■ Wind ■ Solar ■ All Other Ren ■ Nuclear □ Full Year

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



## **Electricity Production**

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## CANADA

		Jan 2	020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	12 233	-4.3%	1.5%	19.3%	12 778	133 860	20.6%
Coal <sup>4</sup>	4 679	-4.3%	1.5%	7.4%	4 887	51 200	7.9%
Oil <sup>4</sup>	676	-4.3%	1.5%	1.1%	706	7 395	1.1%
Natural Gas <sup>4</sup>	6 198	-4.3%	1.5%	9.8%	6 473	67 815	10.4%
Combustible Renewables <sup>4</sup>	672	-4.3%	1.5%	1.1%	702	7 356	1.1%
Other Combustibles <sup>4</sup>	9	-4.3%	1.5%	0.0%	9	94	0.0%
Nuclear	9 432	4.1%	4.4%	14.9%	9 062	101 197	15.6%
Hydro	38 985	-3.1%	1.9%	61.4%	40 224	379 612	58.4%
Wind	2 672	-23.2%	-20.0%	4.2%	3 477	30 532	4.7%
Solar	121	-19.3%	-2.1%	0.2%	150	4 272	0.7%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	1	1	0.0%
Non-Specified	14	-35.7%	-25.9%	0.0%	22	190	0.0%
RENEWABLES	42 449	-4.7%	0.1%	66.9%	44 554	421 772	64.9%
NON-RENEWABLES	21 008	-0.7%	2.8%	33.1%	21 160	227 891	35.1%
TOTAL NET PRODUCTION	63 457	-3.4%	1.0%		65 714	649 664	
+ Imports	1 072	-8.0%	62.6%		1 165	13 349	
- Exports	5 045	2.2%	-7.3%		4 937	60 341	
= ELECTRICITY SUPPLIED	59 484	-4.0%	2.5%		61 941	602 671	
- Used for pumped storage <sup>4</sup>	22	-3.1%	1.9%		22	210	
- T&D Losses <sup>4</sup>	6 792	-3.5%	1.6%		7 040	69 788	
= ELECTRICITY CONSUMED	52 670	-4.0%	2.6%		54 879	532 673	

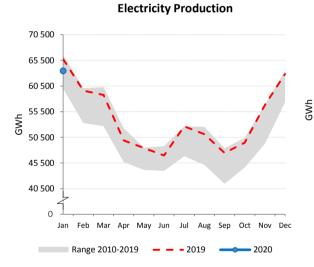
<sup>4</sup> estimated from annual data

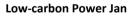
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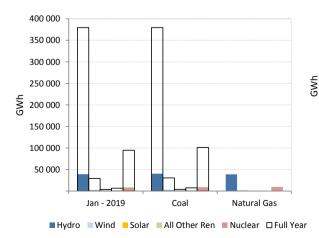
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

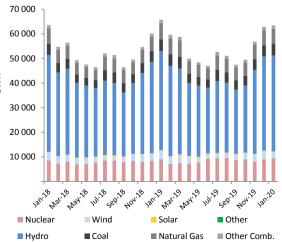
<sup>3</sup> referring to annual 2019 data



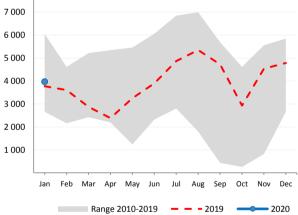




## Range 2010-2019 - - - 2019 -



#### **Net Electricity Exports**



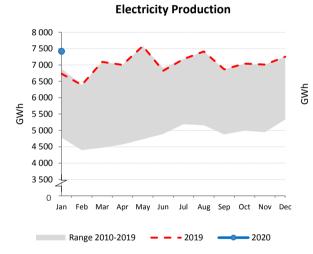
## CHILE

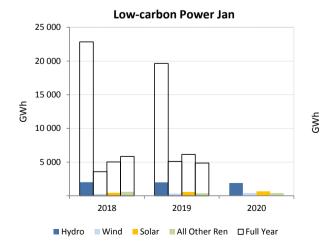
		Jan 2	020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	4 418	15.7%	3.3%	59.5%	3 817	53 352	63.2%
Coal	2 133	-3.7%	-9.6%	28.8%	2 216	27 326	32.4%
Oil	507	450.0%	-19.2%	6.8%	92	6 479	7.7%
Natural Gas	1 385	19.8%	46.9%	18.7%	1 156	14 890	17.6%
Combustible Renewables	393	11.5%	12.9%	5.3%	353	4 658	5.5%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	1 900	-4.5%	9.2%	25.6%	1 990	19 631	23.3%
Wind	423	24.3%	-19.2%	5.7%	340	5 086	6.0%
Solar	660	16.1%	-4.9%	8.9%	568	6 136	7.3%
Geothermal	18	2.6%	11.1%	0.2%	18	201	0.2%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	3 395	3.8%	2.1%	45.8%	3 270	35 712	42.3%
NON-RENEWABLES	4 025	16.2%	2.4%	54.2%	3 464	48 694	57.7%
TOTAL NET PRODUCTION	7 420	10.2%	2.3%		6 734	84 406	
+ Imports	-	-	-		-	-	
- Exports	-	-	-		-	-	
= ELECTRICITY SUPPLIED	7 420	10.2%	2.3%		6 734	84 406	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	283	-12.5%	3.6%		323	3 423	
= ELECTRICITY CONSUMED	7 137	11.3%	2.3%		6 411	80 983	

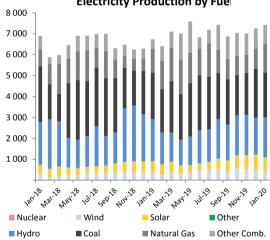
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

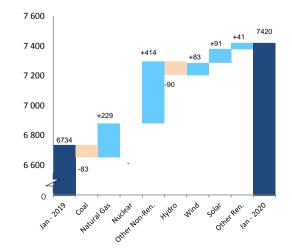
<sup>3</sup> referring to annual 2019 data







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



## Electricity Production by Fue

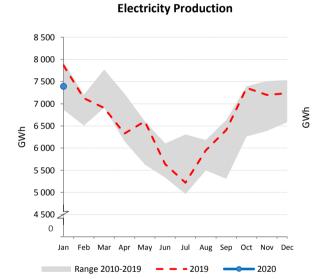
## **CZECH REPUBLIC**

		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	4 605	-4.1%	8.3%	62.3%	4 802	45 072	56.4%
Coal	3 586	-7.5%	4.8%	48.5%	3 879	35 216	44.1%
Oil	8	4.5%	-18.5%	0.1%	7	103	0.1%
Natural Gas	602	12.3%	53.7%	8.1%	536	5 180	6.5%
Combustible Renewables	401	7.5%	-4.5%	5.4%	373	4 495	5.6%
Other Combustibles	8	24.9%	-7.5%	0.1%	6	77	0.1%
Nuclear	2 417	-6.8%	-6.5%	32.7%	2 593	28 572	35.8%
Hydro	229	-31.1%	-10.6%	3.1%	332	3 146	3.9%
Wind	73	-8.1%	-11.7%	1.0%	79	689	0.9%
Solar	60	16.1%	19.0%	0.8%	52	2 260	2.8%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	10	-0.7%	0.9%	0.1%	10	109	0.1%
RENEWABLES	763	-8.8%	-5.7%	10.3%	837	10 591	13.3%
NON-RENEWABLES	6 630	-5.7%	3.1%	89.7%	7 031	69 257	86.7%
TOTAL NET PRODUCTION	7 394	-6.0%	2.1%		7 868	79 848	
+ Imports	1 693	31.7%	50.0%		1 285	11 026	
- Exports	2 559	4.3%	8.5%		2 454	24 123	
= ELECTRICITY SUPPLIED	6 527	-2.6%	8.6%		6 699	66 751	
- Used for pumped storage	148	3.9%	-17.4%		142	1 520	
- T&D Losses	451	2.2%	15.5%		442	4 132	
= ELECTRICITY CONSUMED	5 928	-3.1%	9.0%		6 115	61 100	

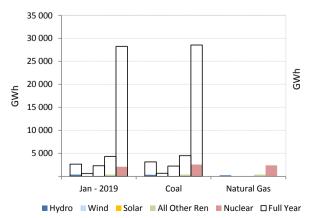
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

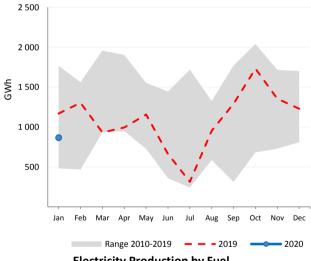
<sup>3</sup> referring to annual 2019 data



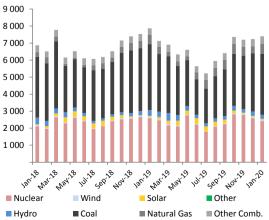












## DENMARK

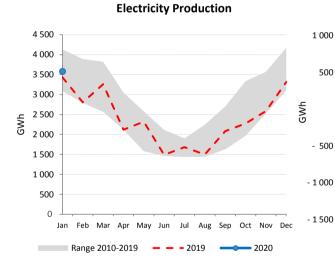
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	1 389	-25.1%	-4.7%	38.8%	1 854	11 666	40.4%
Coal	436	-39.9%	1.8%	12.2%	726	3 247	11.3%
Oil	24	-11.3%	-11.7%	0.7%	27	228	0.8%
Natural Gas	129	-53.3%	-27.7%	3.6%	277	1 618	5.6%
Combustible Renewables	725	-3.2%	-3.1%	20.2%	749	5 782	20.0%
Other Combustibles	75	-1.7%	0.4%	2.1%	76	791	2.7%
Nuclear	-	-	-	-	-	-	-
Hydro	2	42.7%	-5.4%	0.1%	1	16	0.1%
Wind	2 176	39.7%	18.1%	60.8%	1 558	16 214	56.2%
Solar	13	-17.2%	15.6%	0.4%	16	963	3.3%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	2 916	25.5%	12.0%	81.4%	2 324	22 975	79.6%
NON-RENEWABLES	664	-39.9%	-6.3%	18.6%	1 106	5 885	20.4%
TOTAL NET PRODUCTION	3 580	4.4%	8.0%		3 430	28 860	
+ Imports	1 229	11.3%	-7.6%		1 104	15 327	
- Exports	1 513	19.5%	18.9%		1 266	9 535	
= ELECTRICITY SUPPLIED	3 296	0.9%	-2.2%		3 268	34 651	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	56	-72.1%	-74.0%		202	2 128	
= ELECTRICITY CONSUMED	3 240	5.7%	2.7%		3 066	32 523	

Jan Feb Mar Apr May Jun Jul Aug Sep

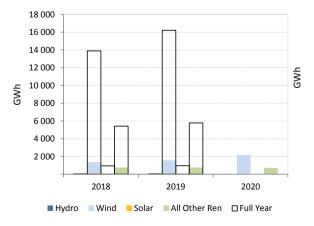
<sup>1</sup> current month to month of last year change

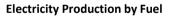
 $^{\rm 2}$  month-to-month change

<sup>3</sup> referring to annual 2019 data



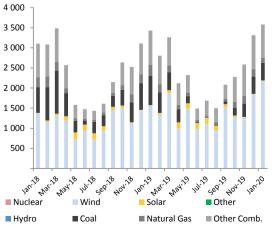






- - 2019

Range 2010-2019



#### **Net Electricity Exports**

Oct

Nov Dec

2020

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## **ESTONIA**

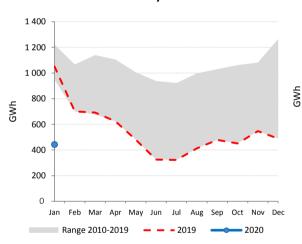
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	332	-66.5%	-16.4%	75.1%	992	5 879	89.5%
Coal <sup>4</sup>	288	-66.5%	-16.4%	65.1%	859	5 094	77.5%
Oil <sup>4</sup>	3	-66.5%	-16.4%	0.8%	10	60	0.9%
Natural Gas <sup>4</sup>	2	-66.5%	-16.4%	0.4%	5	29	0.4%
Combustible Renewables <sup>4</sup>	36	-66.5%	-16.4%	8.1%	107	633	9.6%
Other Combustibles <sup>4</sup>	4	-66.5%	-16.4%	0.8%	11	63	1.0%
Nuclear	-	-	-	-	-	-	-
Hydro	3	344.7%	33.4%	0.8%	1	16	0.2%
Wind	107	82.8%	20.2%	24.1%	58	677	10.3%
Solar	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	146	-12.1%	8.8%	33.0%	166	1 327	20.2%
NON-RENEWABLES	296	-66.5%	-16.4%	67.0%	885	5 246	79.8%
TOTAL NET PRODUCTION	442	-57.9%	-9.5%		1 051	6 573	
+ Imports	663	194.7%	36.7%		225	4 862	
- Exports	261	-30.4%	68.4%		375	2 703	
= ELECTRICITY SUPPLIED	844	-6.3%	3.1%		901	8 732	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses <sup>4</sup>	56	-13.4%	13.5%		65	582	
= ELECTRICITY CONSUMED	788	-5.7%	2.4%		836	8 150	

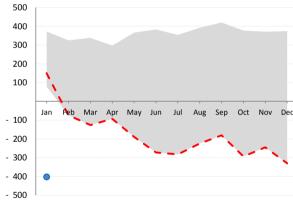
<sup>4</sup> estimated from annual data

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

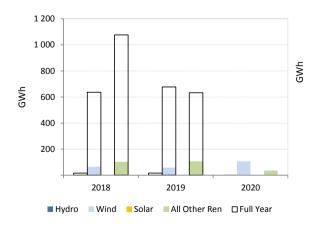
<sup>3</sup> referring to annual 2019 data





#### Electricity Production

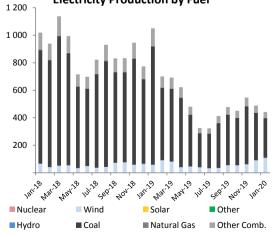




#### **Electricity Production by Fuel**

- - 2019

Range 2010-2019



#### **Net Electricity Exports**

2020

## FINLAND

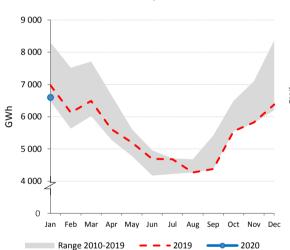
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	2 209	-35.9%	-5.4%	33.5%	3 448	24 368	36.8%
Coal	749	-42.1%	-7.4%	11.4%	1 292	8 208	12.4%
Oil	20	-34.6%	-10.5%	0.3%	31	265	0.4%
Natural Gas	440	-41.8%	6.7%	6.7%	756	3 864	5.8%
Combustible Renewables	969	-26.9%	-8.4%	14.7%	1 326	11 634	17.6%
Other Combustibles <sup>4</sup>	31	-26.4%	-9.9%	0.5%	42	397	0.6%
Nuclear	2 083	0.6%	0.0%	31.6%	2 071	22 920	34.6%
Hydro	1 288	33.5%	4.8%	19.5%	965	12 272	18.5%
Wind	983	111.4%	39.5%	14.9%	465	5 978	9.0%
Solar	3	51.2%	51.2%	0.0%	2	326	0.5%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	27	-	-	0.4%	27	318	0.5%
RENEWABLES	3 243	17.6%	8.3%	49.2%	2 758	30 210	45.6%
NON-RENEWABLES	3 350	-20.6%	-1.1%	50.8%	4 219	35 973	54.4%
TOTAL NET PRODUCTION	6 593	-5.5%	3.3%		6 977	66 182	
+ Imports	1 933	-19.7%	10.1%		2 408	23 938	
- Exports	599	293.7%	70.5%		152	3 898	
= ELECTRICITY SUPPLIED	7 927	-14.1%	1.8%		9 233	86 222	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	240	-14.0%	1.9%		279	2 606	
= ELECTRICITY CONSUMED	7 687	-14.1%	1.8%		8 954	83 616	

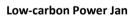
<sup>1</sup> current month to month of last year change

**Electricity Production** 

<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

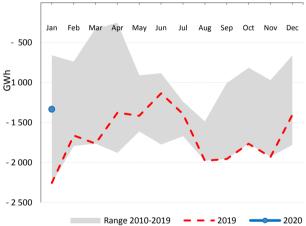


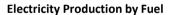


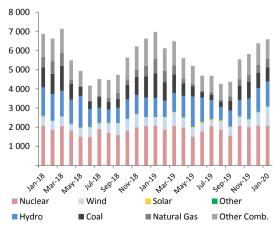
25 000 20 000 15 000 5 000 5 000 Hydro Wind Solar All Other Ren Nuclear DFull Year



**Net Electricity Exports** 







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## FRANCE

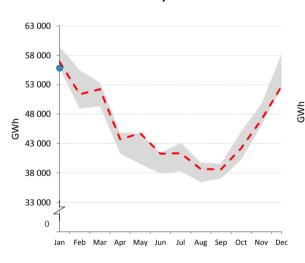
		Jan 2	020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	6 679	-12.0%	16.7%	12.0%	7 590	57 069	10.4%
Coal	300	-52.8%	-35.6%	0.5%	636	3 318	0.6%
Oil	487	-0.4%	-8.6%	0.9%	489	5 643	1.0%
Natural Gas	5 102	-7.7%	31.2%	9.1%	5 525	39 060	7.1%
Combustible Renewables	482	-18.0%	-16.3%	0.9%	587	6 514	1.2%
Other Combustibles	308	-12.4%	19.5%	0.6%	352	2 533	0.5%
Nuclear	37 363	-7.0%	13.2%	67.0%	40 169	379 568	68.9%
Hydro	6 624	25.2%	-20.1%	11.9%	5 291	63 613	11.6%
Wind	4 490	39.0%	-12.1%	8.0%	3 230	37 276	6.8%
Solar	520	16.2%	13.8%	0.9%	448	11 668	2.1%
Geothermal <sup>4</sup>	13	-2.7%	-2.7%	0.0%	13	160	0.0%
Other Renewables	56	-	-	0.1%	56	671	0.1%
Non-Specified	56	-	-	0.1%	56	673	0.1%
RENEWABLES	12 185	26.6%	-16.0%	21.8%	9 626	119 902	21.8%
NON-RENEWABLES	43 616	-7.6%	14.2%	78.2%	47 227	430 796	78.2%
TOTAL NET PRODUCTION	55 801	-1.9%	5.9%		56 853	550 698	
+ Imports	1 605	-44.7%	-24.5%		2 905	15 726	
- Exports	6 064	48.0%	8.2%		4 099	73 270	
= ELECTRICITY SUPPLIED	51 342	-7.8%	4.3%		55 659	493 153	
- Used for pumped storage	537	2.3%	-25.4%		525	6 379	
- T&D Losses	4 523	-10.9%	3.0%		5 074	39 150	
= ELECTRICITY CONSUMED	46 283	-7.5%	4.9%		50 060	447 624	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

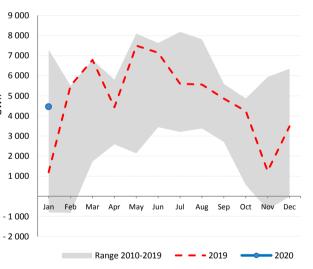
Range 2010-2019

<sup>3</sup> referring to annual 2019 data



#### Electricity Production

<sup>4</sup> estimated

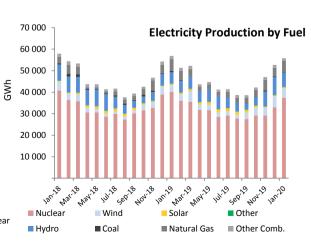


## 450 000 400 000 350 000 250 000 200 000 150 000 50 000 Hydro Wind Solar All Other Ren Nuclear D Full Year

- 2019

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2020



#### **Net Electricity Exports**

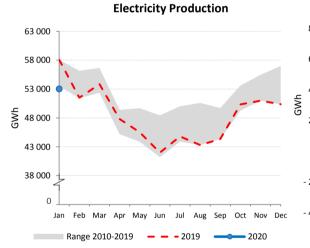
## GERMANY

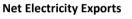
		Jan 2	2020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	28 000	-17.9%	10.3%	52.8%	34 098	314 329	53.9%
Coal	13 866	-29.1%	7.6%	26.1%	19 569	167 080	28.7%
Oil	393	-15.5%	4.2%	0.7%	465	4 619	0.8%
Natural Gas	9 064	-4.3%	21.7%	17.1%	9 473	89 271	15.3%
Combustible Renewables	4 149	2.4%	-0.2%	7.8%	4 051	46 990	8.1%
Other Combustibles	527	-2.4%	4.2%	1.0%	540	6 369	1.1%
Nuclear	5 778	-14.7%	-10.9%	10.9%	6 776	70 585	12.1%
Hydro	1 961	-16.2%	-10.0%	3.7%	2 340	27 879	4.8%
Wind	15 957	14.6%	5.3%	30.1%	13 926	123 403	21.2%
Solar	1 190	47.2%	18.3%	2.2%	809	44 876	7.7%
Geothermal	17	13.1%	33.3%	0.0%	15	164	0.0%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	123	17.1%	-9.8%	0.2%	105	1 621	0.3%
RENEWABLES	23 275	10.1%	3.4%	43.9%	21 141	243 312	41.7%
NON-RENEWABLES	29 751	-19.4%	6.9%	56.1%	36 929	339 545	58.3%
TOTAL NET PRODUCTION	53 027	-8.7%	5.3%		58 070	582 856	
+ Imports	3 420	122.1%	17.9%		1 540	40 156	
- Exports	7 823	-10.9%	4.9%		8 784	73 042	
= ELECTRICITY SUPPLIED	48 624	-4.3%	6.2%		50 825	549 970	
- Used for pumped storage	725	-3.5%	-2.3%		751	8 071	
- T&D Losses	2 849	1.2%	12.7%		2 816	25 971	
= ELECTRICITY CONSUMED	45 050	-4.7%	5.9%		47 258	515 928	

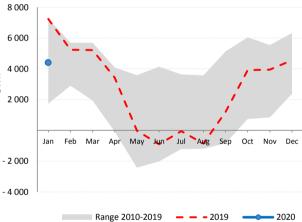
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

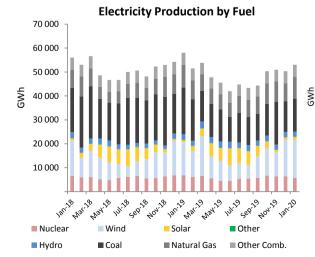
<sup>3</sup> referring to annual 2019 data

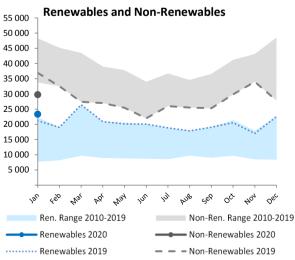












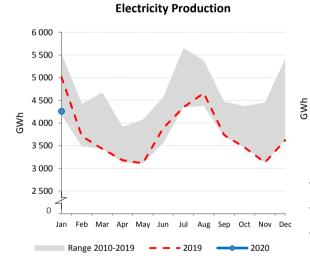
## GREECE

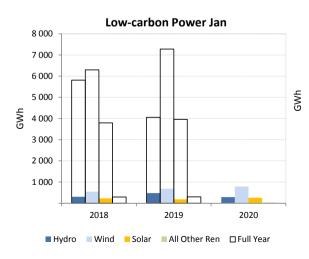
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	2 925	-20.2%	27.8%	68.7%	3 667	29 972	66.2%
Coal	1 069	-25.4%	2.4%	25.1%	1 434	10 812	23.9%
Oil	337	-5.2%	9.7%	7.9%	355	4 287	9.5%
Natural Gas	1 492	-19.4%	63.8%	35.0%	1 852	14 577	32.2%
Combustible Renewables	28	7.0%	4.1%	0.6%	26	297	0.7%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	287	-40.2%	-24.2%	6.7%	480	4 062	9.0%
Wind	786	14.9%	2.7%	18.5%	684	7 278	16.1%
Solar	258	40.2%	35.3%	6.1%	184	3 961	8.7%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	1 359	-1.1%	-0.2%	31.9%	1 374	15 598	34.5%
NON-RENEWABLES	2 898	-20.4%	28.1%	68.1%	3 641	29 676	65.5%
TOTAL NET PRODUCTION	4 257	-15.1%	17.5%		5 015	45 274	
+ Imports	932	43.5%	-19.8%		650	11 067	
- Exports	27	-92.6%	371.3%		357	1 123	
= ELECTRICITY SUPPLIED	5 163	-2.7%	8.0%		5 307	55 217	
- Used for pumped storage	6	430.6%	-57.6%		1	56	
- T&D Losses	274	-11.7%	-6.7%		310	3 061	
= ELECTRICITY CONSUMED	4 882	-2.3%	9.2%		4 996	52 100	

<sup>1</sup> current month to month of last year change

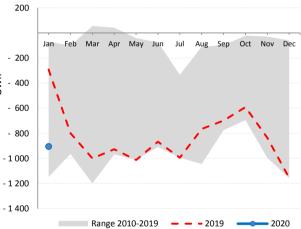
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

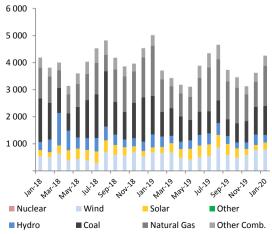




#### **Net Electricity Exports**



**Electricity Production by Fuel** 



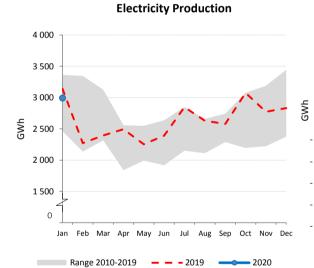
## HUNGARY

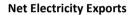
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	1 415	-8.7%	15.6%	47.3%	1 550	13 816	43.6%
Coal	345	-8.1%	26.8%	11.5%	375	3 778	11.9%
Oil	3	-29.0%	-23.4%	0.1%	4	47	0.1%
Natural Gas	928	-6.9%	21.3%	31.0%	997	7 786	24.6%
Combustible Renewables	121	-22.8%	-23.6%	4.0%	156	1 937	6.1%
Other Combustibles	19	4.4%	-27.5%	0.6%	18	267	0.8%
Nuclear	1 446	0.0%	0.5%	48.3%	1 447	15 421	48.7%
Hydro	20	5.4%	-16.9%	0.7%	19	213	0.7%
Wind	37	-55.7%	-56.0%	1.2%	83	705	2.2%
Solar	60	103.4%	27.4%	2.0%	30	1 387	4.4%
Geothermal	2	21.4%	5.3%	0.1%	2	17	0.1%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	11	-	-	0.4%	11	127	0.4%
RENEWABLES	240	-17.2%	-23.8%	8.0%	290	4 261	13.4%
NON-RENEWABLES	2 752	-3.5%	9.3%	92.0%	2 851	27 426	86.6%
TOTAL NET PRODUCTION	2 991	-4.8%	5.6%		3 141	31 687	
+ Imports	1 925	-2.3%	26.1%		1 969	19 854	
- Exports	748	-25.0%	36.2%		997	7 268	
= ELECTRICITY SUPPLIED	4 168	1.3%	9.4%		4 113	44 272	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	345	-12.4%	2.3%		394	3 377	
= ELECTRICITY CONSUMED	3 823	2.8%	10.1%		3 719	40 895	

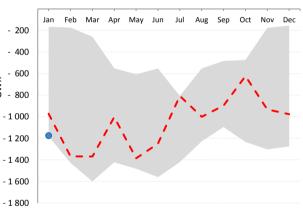
<sup>1</sup> current month to month of last year change

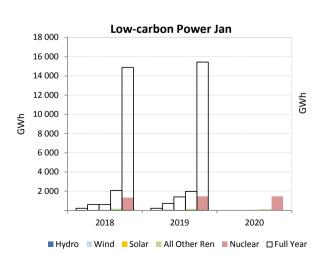
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

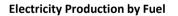




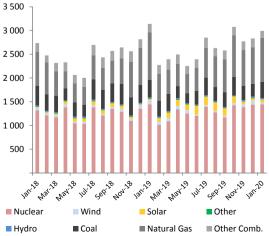




\_ - 2019



Range 2010-2019 - - - 2019



2020

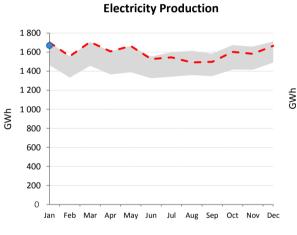
## ICELAND

		Jan 2	2020			2019	
	GWh	$change^1$	$change^{2}$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	1	475.0%	-42.4%	0.1%	0	3	0.0%
Coal	-	-	-	-	-	-	-
Oil	1	475.0%	-42.4%	0.1%	0	3	0.0%
Natural Gas	-	-	-	-	-	-	-
Combustible Renewables	-	-	-	-	-	-	-
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	1 130	-2.9%	-0.2%	67.7%	1 165	13 202	69.0%
Wind	1	71.6%	0.7%	0.0%	0	6	0.0%
Solar	-	-	-	-	-	-	-
Geothermal	537	0.2%	1.1%	32.2%	536	5 931	31.0%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	1 668	-1.9%	0.2%	99.9%	1 701	19 139	100.0%
NON-RENEWABLES	1	478.7%	-42.4%	0.1%	0	3	0.0%
TOTAL NET PRODUCTION	1 669	-1.9%	0.2%		1 701	19 142	
+ Imports	-	-	-		-	-	
- Exports	-	-	-		-	-	
= ELECTRICITY SUPPLIED	1 669	-1.9%	0.2%		1 701	19 142	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	-	-	-		49	585	
= ELECTRICITY CONSUMED	1 669	1.0%	3.2%		1 652	18 557	

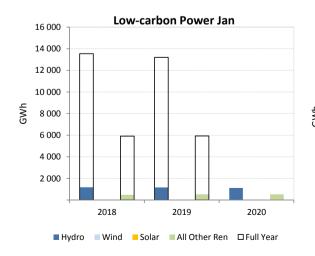
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

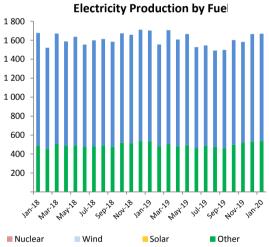
<sup>3</sup> referring to annual 2019 data



Range 2010-2019 — — — 2019 — — 2020



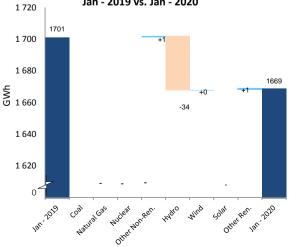
January 2020 is estimated by the IEA Secretariat



■ Coal ■ Natural Gas Electricity Production Variation

Hydro

Jan - 2019 vs. Jan - 2020



Other Comb.

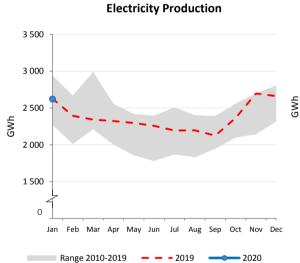
## IRELAND

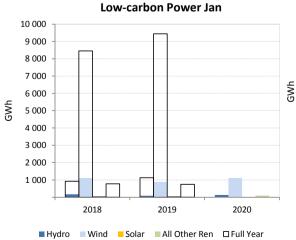
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	1 380	-16.6%	-1.5%	52.6%	1 654	17 888	62.8%
Coal	8	-97.0%	-94.4%	0.3%	252	1 124	3.9%
Oil	30	-41.1%	64.8%	1.1%	50	332	1.2%
Natural Gas	1 219	-4.8%	7.5%	46.5%	1 281	15 411	54.1%
Combustible Renewables	98	124.6%	12.0%	3.7%	43	742	2.6%
Other Combustibles	26	-6.6%	1.5%	1.0%	27	279	1.0%
Nuclear	-	-	-	-	-	-	-
Hydro	130	47.0%	-14.2%	5.0%	88	1 122	3.9%
Wind	1 112	25.8%	0.2%	42.4%	884	9 449	33.2%
Solar	1	-	-24.2%	0.0%	1	15	0.1%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	1 340	31.9%	-0.6%	51.1%	1 016	11 329	39.8%
NON-RENEWABLES	1 282	-20.4%	-2.4%	48.9%	1 611	17 146	60.2%
TOTAL NET PRODUCTION	2 622	-0.2%	-1.5%		2 627	28 475	
+ Imports	210	-21.2%	6.1%		267	2 097	
- Exports	129	47.8%	-22.6%		88	1 481	
= ELECTRICITY SUPPLIED	2 703	-3.7%	0.3%		2 806	29 091	
- Used for pumped storage	49	7.1%	6.0%		46	478	
- T&D Losses	199	-2.1%	-1.0%		204	2 152	
= ELECTRICITY CONSUMED	2 454	-4.0%	0.4%		2 557	26 460	

<sup>1</sup> current month to month of last year change

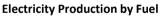
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data





Flectricit



Range 2010-2019

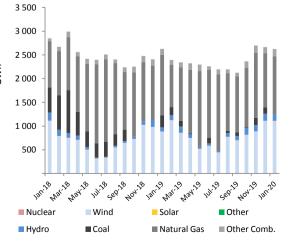
**Net Electricity Exports** 

Aug Sep Oct

- - 2019

Nov

2020



200

100

- 100

- 200

- 300

- 400

Jan Feb

Mar Apr

May

Jun 🖕 Jul

## ITALY

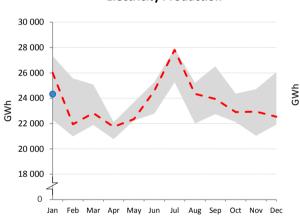
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	17 330	-9.9%	22.8%	71.3%	19 227	185 831	65.5%
Coal <sup>5</sup>	2 746	-9.9%	22.8%	11.3%	3 047	29 452	10.4%
Oil <sup>5</sup>	968	-9.9%	22.8%	4.0%	1 074	10 378	3.7%
Natural Gas⁵	11 667	-9.9%	22.8%	48.0%	12 944	125 110	44.1%
Combustible Renewables⁵	1 728	-9.9%	22.8%	7.1%	1 917	18 533	6.5%
Other Combustibles <sup>5</sup>	220	-9.9%	22.8%	0.9%	244	2 359	0.8%
Nuclear	-	-	-	-	-	-	-
Hydro	3 506	21.9%	-23.0%	14.4%	2 876	47 984	16.9%
Wind	1 712	-26.3%	-30.4%	7.0%	2 322	20 071	7.1%
Solar	1 231	18.1%	36.8%	5.1%	1 042	23 709	8.4%
Geothermal	488	-1.4%	6.1%	2.0%	495	5 681	2.0%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	54	-	-	0.2%	54	644	0.2%
RENEWABLES	8 665	0.1%	-11.4%	35.6%	8 653	115 977	40.8%
NON-RENEWABLES	15 655	-9.8%	22.8%	64.4%	17 363	167 942	59.2%
TOTAL NET PRODUCTION	24 320	-6.5%	7.9%		26 016	283 919	
+ Imports	4 068	21.4%	2.9%		3 352	43 986	
- Exports	749	41.1%	35.0%		531	5 820	
= ELECTRICITY SUPPLIED	27 639	-4.2%	6.6%		28 837	322 085	
- Used for pumped storage	171	-31.9%	-38.3%		251	2 412	
- T&D Losses <sup>4</sup>	1 655	-3.3%	7.2%		1 712	19 116	
= ELECTRICITY CONSUMED	25 813	-3.9%	7.1%		26 874	300 557	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

Range 2010-2019

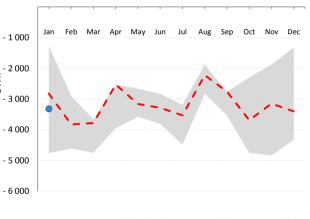
<sup>3</sup> referring to annual 2019 data



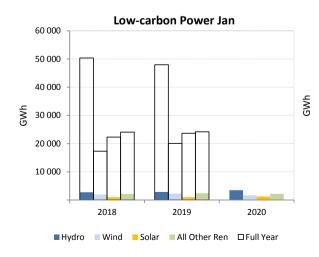
#### Electricity Production

<sup>4</sup>estimated

<sup>5</sup> estimated from annual data



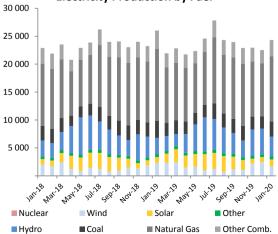
Range 2010-2019 – – – 2019 – 2020



- - - 2019

2020

#### **Electricity Production by Fuel**



## **Net Electricity Exports**

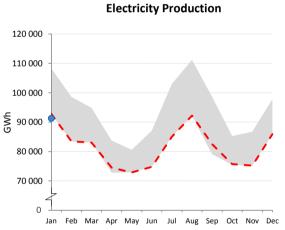
**JAPAN** 

		Jan 2	020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	71 821	-2.4%	7.0%	78.7%	73 603	718 153	73.4%
Coal	29 294	0.6%	3.4%	32.1%	29 119	303 568	31.0%
Oil	5 180	-6.8%	52.9%	5.7%	5 558	40 593	4.2%
Natural Gas	33 754	-5.3%	6.4%	37.0%	35 630	336 432	34.4%
Combustible Renewables	3 593	107.5%	-3.1%	3.9%	1 732	32 848	3.4%
Other Combustibles <sup>4</sup>	-	-	-	-	1 564	4 713	0.5%
Nuclear	5 053	-22.6%	-2.1%	5.5%	6 531	63 034	6.4%
Hydro	5 511	9.0%	-4.2%	6.0%	5 057	86 030	8.8%
Wind	1 130	14.7%	17.7%	1.2%	985	8 173	0.8%
Solar	4 973	19.3%	16.5%	5.4%	4 169	74 123	7.6%
Geothermal	208	13.2%	-3.1%	0.2%	184	2 358	0.2%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	2 572	11.5%	6.3%	2.8%	2 307	26 103	2.7%
RENEWABLES	15 415	27.1%	3.4%	16.9%	12 128	203 532	20.8%
NON-RENEWABLES	75 853	-6.0%	6.8%	83.1%	80 708	774 442	79.2%
TOTAL NET PRODUCTION	91 269	-1.7%	6.2%		92 836	977 975	
+ Imports	-	-	-		-	-	
- Exports	-	-	-		-	-	
= ELECTRICITY SUPPLIED	91 269	-1.7%	6.2%		92 836	977 975	
- Used for pumped storage <sup>4</sup>	1 153	12.2%	5.2%		1 028	11 951	
- T&D Losses <sup>4</sup>	4 487	13.2%	5.2%		3 962	46 415	
= ELECTRICITY CONSUMED	85 629	-2.5%	6.3%		87 846	919 609	

<sup>1</sup> current month to month of last year change

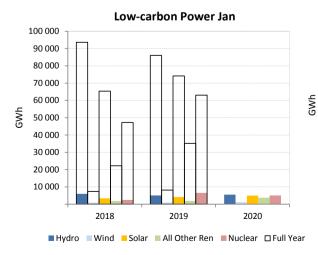
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data



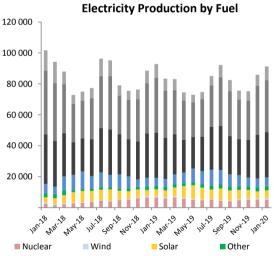
GWh

Range 2010-2019 - - - 2019 2020

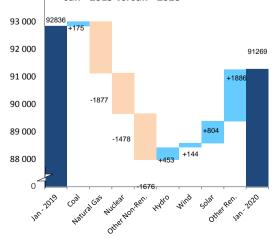


<sup>4</sup> estimated from annual data

January 2020 is estimated by the IEA Secretariat



Hydro Other Comb. Electricity Production Variation 94 000 Jan - 2019 vs. Jan - 2020



## KOREA

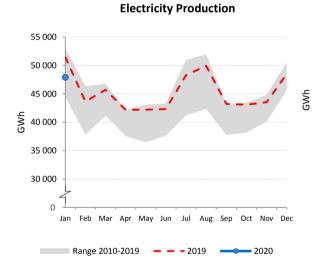
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	34 999	-8.3%	-4.2%	73.1%	38 181	384 909	70.8%
Coal	19 381	-16.8%	-2.7%	40.5%	23 300	238 639	43.9%
Oil	644	-23.4%	-31.6%	1.3%	841	6 741	1.2%
Natural Gas	14 328	7.4%	-4.5%	29.9%	13 336	132 425	24.3%
Combustible Renewables	576	-8.3%	-4.2%	1.2%	628	6 334	1.2%
Other Combustibles	70	-8.3%	-4.2%	0.1%	76	771	0.1%
Nuclear	11 333	-2.9%	7.6%	23.7%	11 674	139 058	25.6%
Hydro	567	-4.7%	7.4%	1.2%	595	6 562	1.2%
Wind <sup>4</sup>	205	-	-	0.4%	205	2 463	0.5%
Solar <sup>4</sup>	599	-	27.5%	1.3%	599	8 667	1.6%
Geothermal	-	-	-	-	-	-	-
Other Renewables	40	-	-	0.1%	40	485	0.1%
Non-Specified	156	-	-	0.3%	156	1 869	0.3%
RENEWABLES	1 988	-3.9%	7.8%	4.2%	2 068	24 512	4.5%
NON-RENEWABLES	45 912	-7.0%	-1.5%	95.8%	49 383	519 502	95.5%
TOTAL NET PRODUCTION	47 900	-6.9%	-1.2%		51 452	544 014	
+ Imports	-	-	-		-	-	
- Exports	-	-	-		-	-	
= ELECTRICITY SUPPLIED	47 900	-6.9%	-1.2%		51 452	544 014	
- Used for pumped storage <sup>4</sup>	-	-	-		-	-	
- T&D Losses <sup>4</sup>	-	-	-		-	-	
= ELECTRICITY CONSUMED	47 900	-6.9%	-1.2%		51 452	544 014	

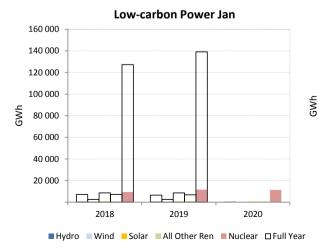
<sup>4</sup> estimated

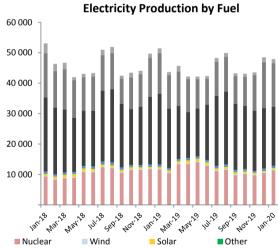
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

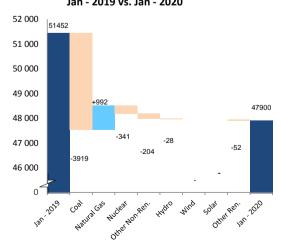
<sup>3</sup> referring to annual 2019 data







Hydro Coal Natural Gas Other Comb. Electricity Production Variation Jan - 2019 vs. Jan - 2020



## LATVIA

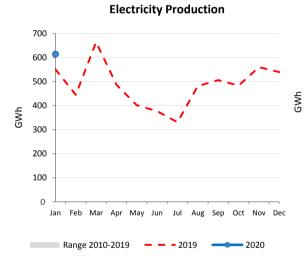
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	194	-57.2%	-20.5%	31.6%	452	3 573	61.4%
Coal	0	-	-	-	0	0	-
Oil	-	-	-	-	-	-	-
Natural Gas	123	-66.4%	-26.7%	20.0%	366	2 730	46.9%
Combustible Renewables	71	-17.9%	-6.8%	11.5%	86	844	14.5%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	396	365.9%	44.0%	64.5%	85	2 095	36.0%
Wind	24	84.6%	20.0%	3.9%	13	153	2.6%
Solar	0	-	36.4%	0.0%	0	1	0.0%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	491	166.3%	32.3%	80.0%	184	3 093	53.1%
NON-RENEWABLES	123	-66.4%	-26.7%	20.0%	366	2 730	46.9%
TOTAL NET PRODUCTION	614	11.5%	13.9%		551	5 822	
+ Imports	347	-24.6%	4.2%		460	4 613	
- Exports	315	-10.5%	30.7%		352	3 495	
= ELECTRICITY SUPPLIED	646	-2.0%	2.4%		659	6 941	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses <sup>4</sup>	43	-4.9%	10.2%		45	463	
= ELECTRICITY CONSUMED	603	-1.7%	1.9%		614	6 479	

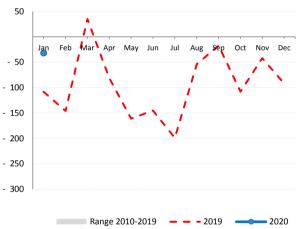
<sup>4</sup> estimated

<sup>1</sup> current month to month of last year change

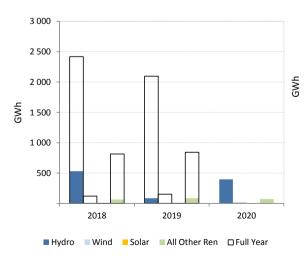
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data



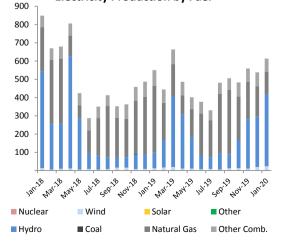


**Net Electricity Exports** 



Low-carbon Power Jan

**Electricity Production by Fuel** 



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## LITHUANIA

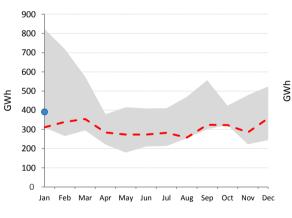
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	110	10.4%	-1.0%	28.2%	100	1 168	31.9%
Coal	-	-	-	-	-	-	-
Oil	16	104.3%	21.1%	4.1%	8	94	2.6%
Natural Gas	30	-9.1%	-2.3%	7.6%	33	453	12.4%
Combustible Renewables	57	8.0%	-5.4%	14.5%	53	544	14.9%
Other Combustibles	8	14.0%	-0.2%	1.9%	7	76	2.1%
Nuclear	-	-	-	-	-	-	-
Hydro	87	10.6%	21.9%	22.2%	78	929	25.4%
Wind	193	46.8%	10.7%	49.3%	131	1 484	40.5%
Solar	1	99.5%	50.5%	0.3%	1	80	2.2%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	338	28.3%	10.3%	86.3%	263	3 038	83.0%
NON-RENEWABLES	54	13.1%	4.1%	13.7%	47	623	17.0%
TOTAL NET PRODUCTION	391	26.0%	9.4%		311	3 661	
+ Imports	1 174	-1.8%	2.8%		1 196	13 268	
- Exports	390	35.1%	15.4%		289	3 924	
= ELECTRICITY SUPPLIED	1 175	-3.5%	1.1%		1 217	13 005	
- Used for pumped storage	63	26.9%	0.7%		50	810	
- T&D Losses	145	10.9%	308.2%		131	995	
= ELECTRICITY CONSUMED	967	-6.7%	-9.1%		1 037	11 199	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

Range 2010-2019

<sup>3</sup> referring to annual 2019 data

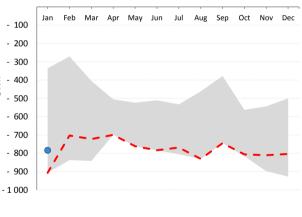


- 2019

-

2020

**Electricity Production** 



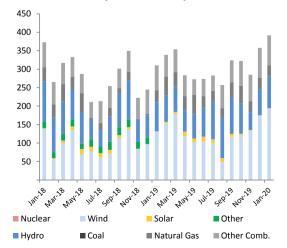
Low-carbon Power Jan 1 400 1 400 1 000 1

#### **Electricity Production by Fuel**

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- - 2019

Range 2010-2019



## Net Electricity Exports

2020

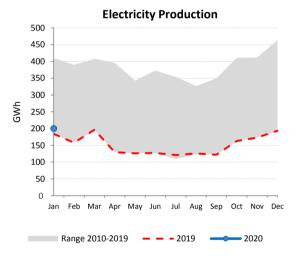
## LUXEMBOURG

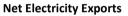
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	53	5.0%	-1.0%	26.7%	51	518	28.5%
Coal	-	-	-	-	-	-	-
Oil	-	-	-	-	-	-	-
Natural Gas	18	-27.9%	2.0%	9.1%	25	171	9.4%
Combustible Renewables	29	48.4%	-3.0%	14.4%	19	271	14.9%
Other Combustibles	6	3.5%	-	3.2%	6	75	4.1%
Nuclear	-	-	-	-	-	-	-
Hydro	103	-1.8%	-2.5%	51.3%	105	932	51.3%
Wind	41	55.3%	29.0%	20.7%	27	256	14.1%
Solar	3	40.9%	27.1%	1.3%	2	112	6.2%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	175	15.1%	3.7%	87.7%	152	1 572	86.4%
NON-RENEWABLES	25	-21.7%	1.5%	12.3%	31	246	13.6%
TOTAL NET PRODUCTION	200	8.8%	3.4%		184	1 819	
+ Imports	592	-12.0%	11.5%		673	6 818	
- Exports	80	-35.7%	-12.9%		125	939	
= ELECTRICITY SUPPLIED	712	-2.8%	12.6%		732	7 698	
- Used for pumped storage	136	2.4%	7.5%		133	1 203	
- T&D Losses	13	-3.7%	13.9%		14	149	
= ELECTRICITY CONSUMED	562	-3.9%	13.9%		585	6 345	

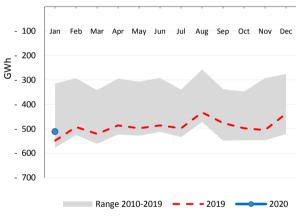
<sup>1</sup> current month to month of last year change

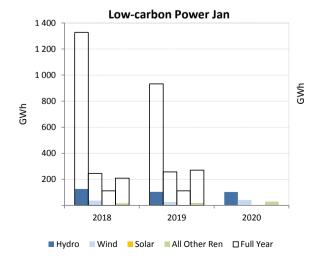
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

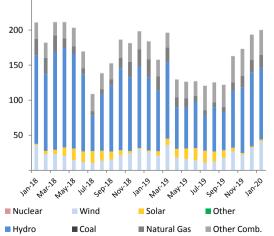








Electricity Production by Fuel



250

## MEXICO

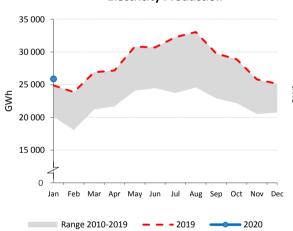
		Jan 2	020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	20 096	1.8%	2.3%	77.6%	19 751	270 668	79.8%
Coal <sup>4</sup>	2 008	12.8%	2.3%	7.8%	1 780	25 052	7.4%
Oil <sup>4</sup>	2 632	44.4%	2.3%	10.2%	1 822	36 048	10.6%
Natural Gas <sup>4</sup>	15 245	-3.6%	2.3%	58.9%	15 813	206 352	60.8%
Combustible Renewables <sup>4</sup>	173	-38.5%	2.3%	0.7%	282	2 675	0.8%
Other Combustibles <sup>4</sup>	38	-29.6%	2.3%	0.1%	53	541	0.2%
Nuclear	1 094	25.1%	5.0%	4.2%	874	10 930	3.2%
Hydro	1 186	-23.2%	-8.0%	4.6%	1 543	23 461	6.9%
Wind	1 953	17.3%	16.8%	7.5%	1 665	16 837	5.0%
Solar	1 143	87.8%	4.9%	4.4%	609	12 315	3.6%
Geothermal	429	-3.8%	6.6%	1.7%	445	5 093	1.5%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	4 884	7.5%	5.7%	18.9%	4 544	60 381	17.8%
NON-RENEWABLES	21 017	3.3%	2.4%	81.1%	20 343	278 924	82.2%
TOTAL NET PRODUCTION	25 901	4.1%	3.0%		24 887	339 304	
+ Imports	24	-70.0%	-28.9%		82	968	
- Exports	35	-61.6%	-37.7%		92	894	
= ELECTRICITY SUPPLIED	25 890	4.1%	3.1%		24 877	339 379	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses <sup>4</sup>	3 525	3.8%	3.0%		3 395	45 477	
= ELECTRICITY CONSUMED	22 365	4.1%	3.1%		21 482	293 902	

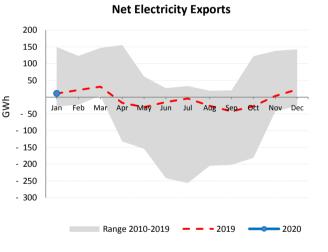
<sup>4</sup> estimated by the IEA Secretariat

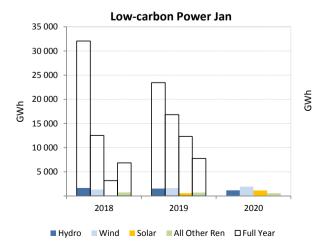
<sup>1</sup> current month to month of last year change

 $^{\rm 2}$  month-to-month change

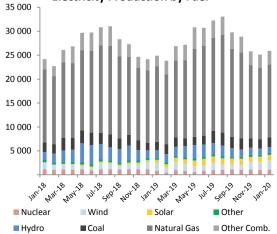
<sup>3</sup> referring to annual 2019 data







**Electricity Production by Fuel** 



## **Electricity Production**

## NETHERLANDS

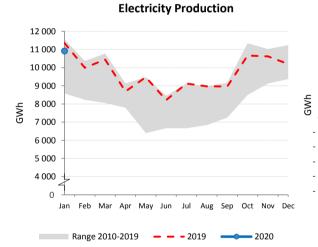
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	9 063	-6.9%	8.0%	83.1%	9 734	95 597	81.9%
Coal	842	-66.0%	-53.2%	7.7%	2 478	17 442	14.9%
Oil	302	8.9%	23.8%	2.8%	277	3 138	2.7%
Natural Gas	7 237	14.4%	33.9%	66.3%	6 328	67 744	58.0%
Combustible Renewables	501	22.6%	-32.3%	4.6%	408	5 155	4.4%
Other Combustibles	182	-24.8%	-11.9%	1.7%	242	2 117	1.8%
Nuclear	364	0.0%	0.1%	3.3%	364	3 737	3.2%
Hydro	9	2.1%	26.5%	0.1%	9	62	0.1%
Wind	1 275	17.3%	3.2%	11.7%	1 087	9 903	8.5%
Solar	141	40.5%	1.4%	1.3%	100	6 690	5.7%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	60	-	-	0.5%	60	719	0.6%
RENEWABLES	1 926	20.0%	-9.2%	17.6%	1 604	21 809	18.7%
NON-RENEWABLES	8 987	-7.8%	11.3%	82.4%	9 750	94 899	81.3%
TOTAL NET PRODUCTION	10 913	-3.9%	7.0%		11 355	116 708	
+ Imports	1 731	8.7%	-11.7%		1 593	20 219	
- Exports	1 974	-6.4%	17.0%		2 108	19 269	
= ELECTRICITY SUPPLIED	10 670	-1.6%	1.9%		10 840	117 658	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses <sup>4</sup>	453	-1.5%	1.5%		460	4 899	
= ELECTRICITY CONSUMED	10 216	-1.6%	1.9%		10 379	112 759	

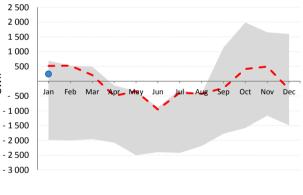
<sup>4</sup> estimated

<sup>1</sup> current month to month of last year change

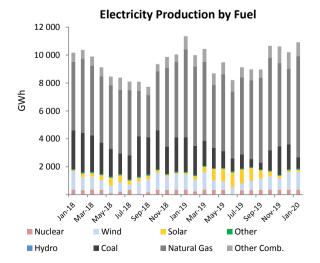
<sup>2</sup> month-to-month change

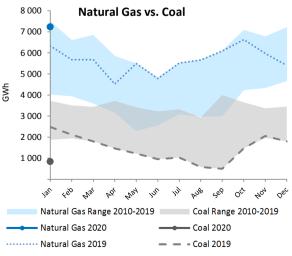
<sup>3</sup> referring to annual 2019 data





Range 2010-2019 – – – 2019





#### **Net Electricity Exports**

2020

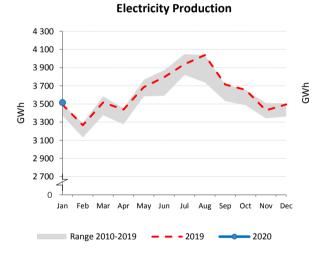
## NEW ZEALAND

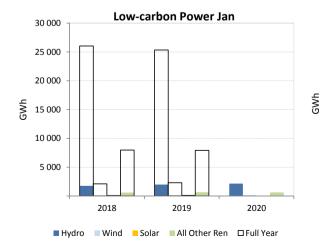
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	556	-17.2%	23.2%	15.8%	671	8 308	19.1%
Coal	57	-63.6%	6.5%	1.6%	156	2 186	5.0%
Oil	0	1.2%	-32.7%	0.0%	0	3	0.0%
Natural Gas	447	-4.4%	31.3%	12.7%	467	5 524	12.7%
Combustible Renewables	52	9.4%	-8.9%	1.5%	48	594	1.4%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	2 172	9.1%	-2.9%	61.8%	1 992	25 353	58.3%
Wind	195	-4.7%	-4.6%	5.6%	205	2 316	5.3%
Solar	12	25.9%	0.9%	0.3%	9	123	0.3%
Geothermal	577	-5.9%	-1.7%	16.4%	613	7 322	16.8%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	4	-	-	0.1%	4	45	0.1%
RENEWABLES	3 008	4.9%	-2.9%	85.6%	2 867	35 708	82.2%
NON-RENEWABLES	507	-19.1%	27.6%	14.4%	627	7 758	17.8%
TOTAL NET PRODUCTION	3 516	0.6%	0.6%		3 494	43 466	
+ Imports	-	-	-		-	-	
- Exports	-	-	-		-	-	
= ELECTRICITY SUPPLIED	3 516	0.6%	0.6%		3 494	43 466	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses	241	0.6%	0.6%		240	2 983	
= ELECTRICITY CONSUMED	3 274	0.6%	0.6%		3 254	40 483	

<sup>1</sup> current month to month of last year change

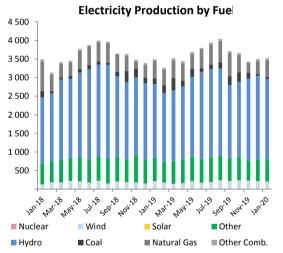
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

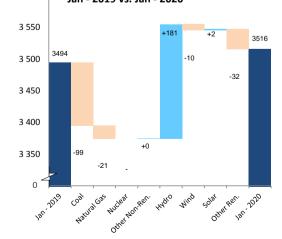




January 2020 is estimated by the IEA Secretariat



Electricity Production Variation <sup>3 600</sup> Jan - 2019 vs. Jan - 2020



## NORWAY

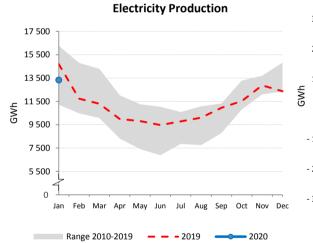
		Jan 2	2020			2019	
	GWh	$change^1$	$change^2$	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	267	11.0%	1.7%	2.0%	240	3 021	2.2%
Coal <sup>4</sup>	15	8.6%	1.9%	0.1%	14	171	0.1%
Oil <sup>4</sup>	2	8.6%	1.9%	0.0%	2	27	0.0%
Natural Gas	211	13.5%	2.5%	1.6%	186	2 379	1.8%
Combustible Renewables	20	4.2%	-7.2%	0.1%	19	242	0.2%
Other Combustibles	19	-3.8%	2.8%	0.1%	19	202	0.1%
Nuclear	-	-	-	-	-	-	-
Hydro	12 016	-13.4%	6.5%	90.1%	13 877	125 765	93.4%
Wind	1 023	84.3%	29.5%	7.7%	555	5 530	4.1%
Solar	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	23	-	-	0.2%	23	276	0.2%
RENEWABLES	13 059	-9.6%	7.9%	98.0%	14 451	131 537	97.7%
NON-RENEWABLES	270	10.5%	2.3%	2.0%	244	3 055	2.3%
TOTAL NET PRODUCTION	13 329	-9.3%	7.8%		14 696	134 592	
+ Imports	1 067	-10.7%	-42.1%		1 195	12 354	
- Exports	947	-29.2%	48.7%		1 337	12 309	
= ELECTRICITY SUPPLIED	13 449	-7.6%	-0.9%		14 554	134 636	
- Used for pumped storage	88	724.0%	412.7%		11	1 057	
- T&D Losses	773	-9.3%	7.8%		853	7 804	
= ELECTRICITY CONSUMED	12 588	-8.0%	-1.9%		13 690	125 774	

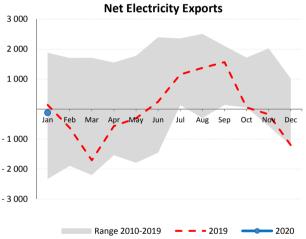
<sup>4</sup> estimated from annual data

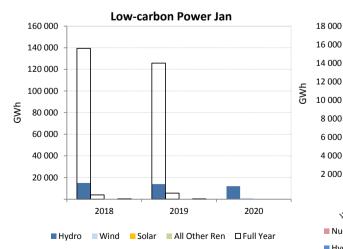
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

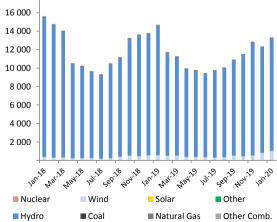
<sup>3</sup> referring to annual 2019 data







Electricity Production by Fuel



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## POLAND

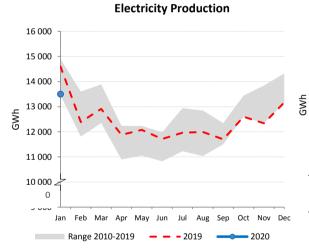
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	11 355	-11.2%	1.9%	84.1%	12 784	131 126	87.8%
Coal	9 100	-15.4%	5.3%	67.4%	11 059	107 723	72.1%
Oil <sup>4</sup>	-	-	-	-	-	2 715	1.8%
Natural Gas	1 270	11.7%	-17.4%	9.4%	1 137	13 690	9.2%
Combustible Renewables	658	18.4%	-0.1%	4.9%	555	6 636	4.4%
Other Combustibles	328	911.0%	1114.8%	2.4%	32	362	0.2%
Nuclear	-	-	-	-	-	-	-
Hydro	237	-7.0%	7.6%	1.8%	255	2 637	1.8%
Wind	1 879	20.9%	5.9%	13.9%	1 555	14 826	9.9%
Solar	26	290.7%	-2.1%	0.2%	7	730	0.5%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	2 800	18.1%	4.5%	20.7%	2 372	24 828	16.6%
NON-RENEWABLES	10 697	-12.5%	2.0%	79.3%	12 229	124 490	83.4%
TOTAL NET PRODUCTION	13 497	-7.6%	2.5%		14 600	149 319	
+ Imports	1 872	54.3%	18.1%		1 213	17 868	
- Exports	1 135	10.2%	59.2%		1 030	7 245	
= ELECTRICITY SUPPLIED	14 235	-3.7%	1.4%		14 784	159 942	
- Used for pumped storage	120	60.3%	-8.0%		75	1 033	
- T&D Losses	1 122	24.4%	-10.4%		901	12 182	
= ELECTRICITY CONSUMED	12 993	-5.9%	2.7%		13 808	146 727	

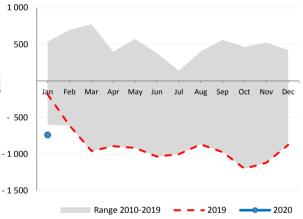
<sup>4</sup> monthly figures are confidential

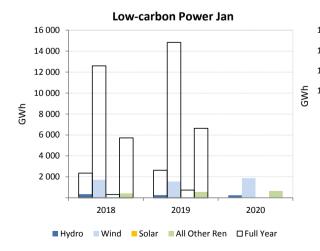
<sup>1</sup> current month to month of last year change

 $^{\rm 2}$  month-to-month change

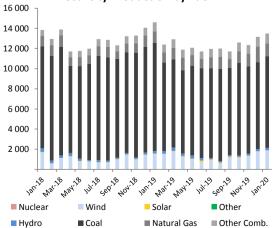
<sup>3</sup> referring to annual 2019 data







**Electricity Production by Fuel** 



#### **Net Electricity Exports**

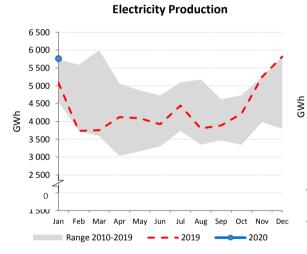
## PORTUGAL

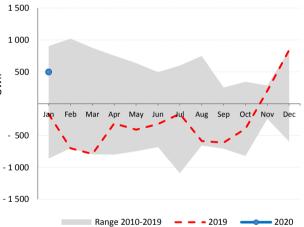
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	2 232	-14.7%	34.0%	38.7%	2 618	26 413	50.7%
Coal	118	-88.8%	-16.9%	2.1%	1 058	5 294	10.2%
Oil	103	14.8%	-11.8%	1.8%	90	1 166	2.2%
Natural Gas	1 691	43.0%	49.0%	29.3%	1 182	16 552	31.8%
Combustible Renewables	298	12.8%	17.6%	5.2%	264	3 149	6.0%
Other Combustibles	22	-7.8%	21.6%	0.4%	24	252	0.5%
Nuclear	-	-	-	-	-	-	-
Hydro	2 103	121.4%	-17.0%	36.5%	950	10 602	20.3%
Wind	1 322	-7.6%	-14.1%	22.9%	1 431	13 567	26.0%
Solar	86	25.0%	30.9%	1.5%	69	1 353	2.6%
Geothermal	17	2.6%	7.0%	0.3%	17	191	0.4%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	3 827	40.1%	-13.2%	66.4%	2 731	28 862	55.4%
NON-RENEWABLES	1 935	-17.8%	36.9%	33.6%	2 354	23 264	44.6%
TOTAL NET PRODUCTION	5 762	13.3%	-1.0%		5 085	52 125	
+ Imports	467	-30.7%	29.6%		674	8 098	
- Exports	963	87.4%	-20.0%		514	4 698	
= ELECTRICITY SUPPLIED	5 265	0.4%	5.8%		5 245	55 525	
- Used for pumped storage	203	26.9%	3.2%		160	1 826	
- T&D Losses	531	10.0%	8.1%		483	5 141	
= ELECTRICITY CONSUMED	4 532	-1.5%	5.6%		4 602	48 558	

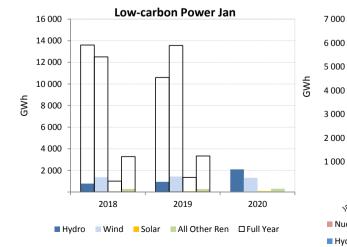
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

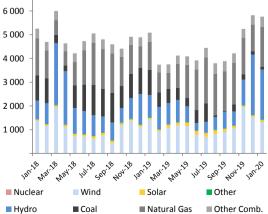
<sup>3</sup> referring to annual 2019 data







#### Electricity Production by Fuel



## Net Electricity Exports

## SLOVAK REPUBLIC

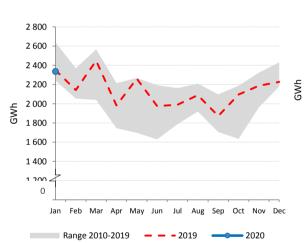
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	680	10.7%	25.1%	29.1%	614	6 102	23.8%
Coal	258	-3.5%	14.4%	11.1%	268	2 305	9.0%
Oil	27	-8.8%	-	1.1%	29	339	1.3%
Natural Gas	314	39.9%	38.8%	13.4%	224	2 443	9.5%
Combustible Renewables	80	-13.0%	25.0%	3.4%	92	998	3.9%
Other Combustibles	2	20.5%	9.3%	0.1%	1	16	0.1%
Nuclear	1 345	0.5%	0.3%	57.6%	1 338	14 395	56.2%
Hydro	290	-22.7%	-9.7%	12.4%	375	4 482	17.5%
Wind	-	-	-	-	-	4	0.0%
Solar	19	11.8%	18.8%	0.8%	17	588	2.3%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	2	-50.0%	-50.0%	0.1%	4	53	0.2%
RENEWABLES	389	-19.7%	-3.3%	16.7%	485	6 072	23.7%
NON-RENEWABLES	1 947	4.4%	6.7%	83.3%	1 865	19 552	76.3%
TOTAL NET PRODUCTION	2 336	-0.5%	4.9%		2 349	25 624	
+ Imports	1 841	15.1%	50.7%		1 600	13 536	
- Exports	1 595	17.6%	46.2%		1 356	11 837	
= ELECTRICITY SUPPLIED	2 582	-0.4%	9.5%		2 593	27 323	
- Used for pumped storage	37	12.1%	48.0%		33	295	
- T&D Losses <sup>4</sup>	133	5.8%	21.1%		126	1 246	
= ELECTRICITY CONSUMED	2 412	-0.9%	8.5%		2 435	25 782	

<sup>4</sup> estimated

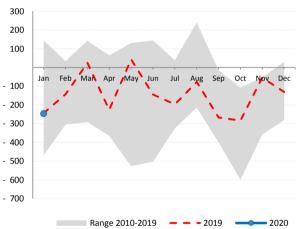
<sup>1</sup> current month to month of last year change

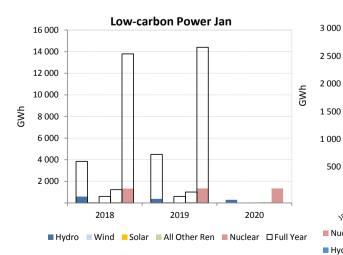
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

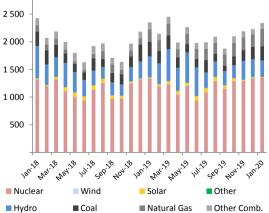








### Electricity Production by Fuel



# Net Electricity Exports

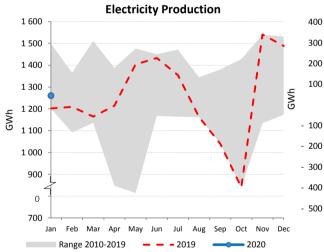
## SLOVENIA

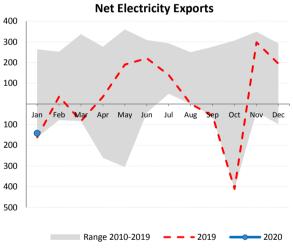
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	383	-21.8%	-8.4%	30.4%	490	4 691	31.2%
Coal	296	-26.3%	-13.4%	23.5%	402	3 998	26.6%
Oil	0	-62.2%	2163.6%	0.0%	1	4	0.0%
Natural Gas	64	-0.2%	15.2%	5.1%	64	471	3.1%
Combustible Renewables	22	-1.2%	6.9%	1.7%	22	209	1.4%
Other Combustibles	1	-6.8%	95.5%	0.1%	1	9	0.1%
Nuclear	518	0.7%	0.8%	41.1%	515	5 532	36.8%
Hydro	342	82.6%	-36.9%	27.2%	188	4 555	30.3%
Wind	1	-29.4%	-9.2%	0.0%	1	6	0.0%
Solar	16	85.7%	35.5%	1.2%	8	269	1.8%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	380	73.9%	-33.9%	30.2%	219	5 039	33.5%
NON-RENEWABLES	880	-10.5%	-3.6%	69.8%	983	10 014	66.5%
TOTAL NET PRODUCTION	1 260	4.9%	-15.3%		1 202	15 053	
+ Imports	778	-14.1%	24.3%		906	9 021	
- Exports	636	-14.5%	-22.4%		744	9 421	
= ELECTRICITY SUPPLIED	1 402	2.9%	8.3%		1 363	14 654	
- Used for pumped storage	36	-	-1.1%		-	272	
- T&D Losses	59	-51.2%	-45.1%		122	867	
= ELECTRICITY CONSUMED	1 307	5.3%	13.7%		1 241	13 515	

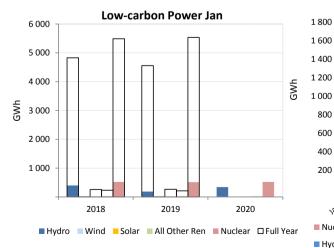
<sup>1</sup> current month to month of last year change

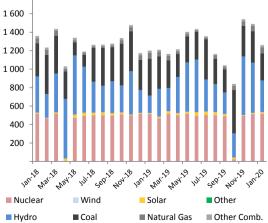
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data









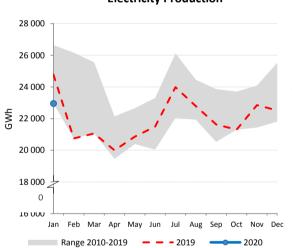
## **SPAIN**

		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	8 386	-21.9%	16.7%	36.5%	10 742	112 662	42.7%
Coal	866	-73.7%	69.2%	3.8%	3 292	12 672	4.8%
Oil	1 090	-3.4%	3.8%	4.8%	1 129	12 723	4.8%
Natural Gas	5 845	1.6%	15.3%	25.5%	5 753	80 571	30.5%
Combustible Renewables	536	5.7%	6.5%	2.3%	507	6 040	2.3%
Other Combustibles	49	-19.3%	-1.9%	0.2%	61	656	0.2%
Nuclear	5 282	4.9%	21.6%	23.0%	5 035	55 753	21.1%
Hydro	3 963	72.7%	-20.0%	17.3%	2 295	26 387	10.0%
Wind	4 630	-23.3%	-15.4%	20.2%	6 037	54 708	20.7%
Solar	676	3.2%	22.0%	2.9%	655	14 368	5.4%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	10	-	-	0.0%	10	121	0.0%
RENEWABLES	9 804	3.3%	-14.6%	42.7%	9 494	101 502	38.4%
NON-RENEWABLES	13 143	-14.0%	19.1%	57.3%	15 280	162 497	61.6%
TOTAL NET PRODUCTION	22 947	-7.4%	1.9%		24 774	263 999	
+ Imports	2 341	48.1%	34.1%		1 580	18 721	
- Exports	859	-35.6%	-33.8%		1 334	11 859	
= ELECTRICITY SUPPLIED	24 429	-2.4%	6.4%		25 020	270 861	
- Used for pumped storage	406	35.2%	-43.0%		301	3 259	
- T&D Losses	2 268	-2.9%	7.9%		2 336	25 212	
= ELECTRICITY CONSUMED	21 755	-2.8%	8.0%		22 384	242 391	

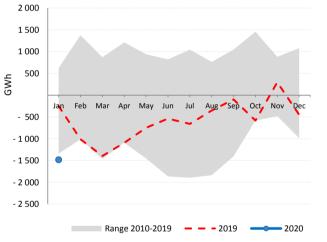
<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change

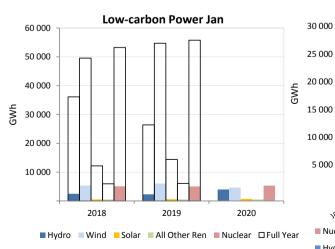
<sup>3</sup> referring to annual 2019 data

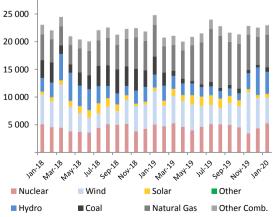


### Electricity Production



**Net Electricity Exports** 





## **SWEDEN**

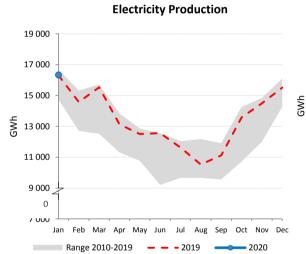
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	1 323	-40.4%	-2.4%	8.1%	2 220	14 535	9.0%
Coal	1	-99.8%	-34.3%	0.0%	455	1 2 3 2	0.8%
Oil	12	-88.0%	-25.1%	0.1%	104	378	0.2%
Natural Gas	11	-93.1%	-48.7%	0.1%	162	470	0.3%
Combustible Renewables	1 227	-11.3%	1.5%	7.5%	1 384	11 311	7.0%
Other Combustibles	72	-38.1%	-33.7%	0.4%	116	1 145	0.7%
Nuclear	5 535	-4.8%	0.1%	33.9%	5 814	61 819	38.3%
Hydro	5 950	-7.4%	-3.1%	36.4%	6 427	64 826	40.1%
Wind	3 511	91.0%	41.8%	21.5%	1 838	19 884	12.3%
Solar <sup>4</sup>	7	-	5.6%	0.0%	7	404	0.3%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	10 695	10.8%	8.8%	65.5%	9 656	96 425	59.7%
NON-RENEWABLES	5 631	-15.3%	-0.8%	34.5%	6 650	65 043	40.3%
TOTAL NET PRODUCTION	16 326	0.1%	5.3%		16 307	161 468	
+ Imports	300	-74.2%	-62.3%		1 164	8 948	
- Exports	3 334	44.5%	5.8%		2 308	34 123	
= ELECTRICITY SUPPLIED	13 292	-12.3%	1.0%		15 163	136 292	
- Used for pumped storage	2	202.4%	-		1	23	
- T&D Losses	873	-17.3%	1.1%		1 056	8 069	
= ELECTRICITY CONSUMED	12 416	-12.0%	1.0%		14 106	128 200	

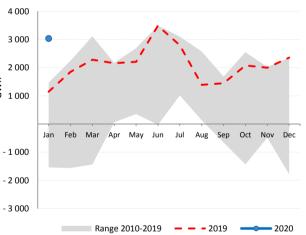
<sup>4</sup> estimated by the IEA secretariat

<sup>1</sup> current month to month of last year change

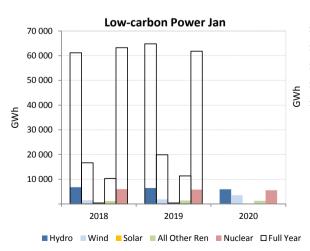
<sup>2</sup> month-to-month change

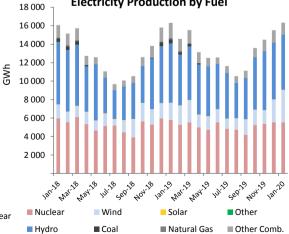
<sup>3</sup> referring to annual 2019 data





**Net Electricity Exports** 





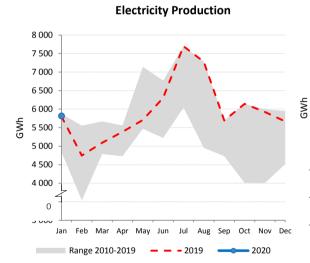
## SWITZERLAND

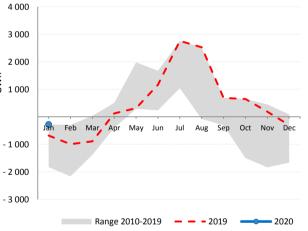
		Jan 2	020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	370	2.6%	-1.8%	6.4%	360	3 886	5.4%
Coal	-	-	-	-	-	-	-
Oil	2	-50.0%	-50.0%	0.0%	3	36	0.1%
Natural Gas	51	-11.3%	-15.5%	0.9%	58	625	0.9%
Combustible Renewables	191	4.5%	-	3.3%	183	1 975	2.8%
Other Combustibles	126	8.1%	3.5%	2.2%	116	1 250	1.7%
Nuclear	2 171	-7.8%	-2.8%	37.3%	2 355	25 093	35.1%
Hydro	3 186	5.3%	6.5%	54.8%	3 027	40 274	56.4%
Wind	16	33.3%	-23.8%	0.3%	12	148	0.2%
Solar	72	60.0%	71.4%	1.2%	45	2 034	2.8%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	3 465	6.1%	6.7%	59.6%	3 267	44 431	62.2%
NON-RENEWABLES	2 349	-7.2%	-2.9%	40.4%	2 533	27 004	37.8%
TOTAL NET PRODUCTION	5 814	0.3%	2.6%		5 799	71 435	
+ Imports	3 427	-7.4%	7.8%		3 700	31 017	
- Exports	3 146	4.3%	9.4%		3 017	36 538	
= ELECTRICITY SUPPLIED	6 095	-6.0%	2.1%		6 483	65 914	
- Used for pumped storage	198	-6.4%	-28.2%		211	3 965	
- T&D Losses	393	-5.9%	-2.9%		417	4 574	
= ELECTRICITY CONSUMED	5 505	-6.0%	4.1%		5 855	57 375	

<sup>1</sup> current month to month of last year change

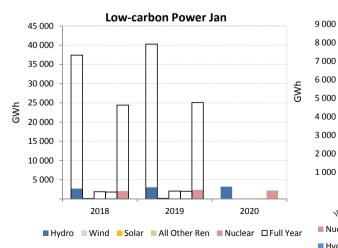
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

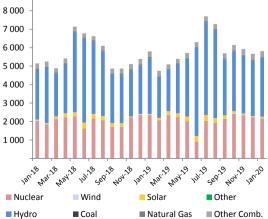




**Net Electricity Exports** 



### **Electricity Production by Fuel**



### Source IEA: All rights reserved

## TURKEY

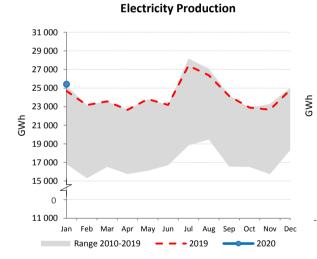
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	16 378	17.0%	-2.8%	64.5%	14 000	163 414	56.5%
Coal	9 220	9.0%	-11.8%	36.3%	8 462	106 443	36.8%
Oil	17	-39.4%	8.7%	0.1%	28	233	0.1%
Natural Gas	6 818	29.9%	12.3%	26.8%	5 248	53 560	18.5%
Combustible Renewables	323	23.3%	5.9%	1.3%	262	3 171	1.1%
Other Combustibles	1	56.3%	-1.8%	0.0%	0	6	0.0%
Nuclear	-	-	-	-	-	-	-
Hydro	5 372	-28.5%	7.9%	21.1%	7 516	87 091	30.1%
Wind	2 378	8.4%	29.2%	9.4%	2 193	21 344	7.4%
Solar	527	67.8%	33.7%	2.1%	314	9 160	3.2%
Geothermal	691	15.4%	1.7%	2.7%	599	7 581	2.6%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	66	-14.7%	-1.1%	0.3%	77	841	0.3%
RENEWABLES	9 290	-14.6%	13.3%	36.6%	10 882	128 347	44.3%
NON-RENEWABLES	16 121	16.7%	-2.9%	63.4%	13 815	161 084	55.7%
TOTAL NET PRODUCTION	25 411	2.9%	2.4%		24 698	289 431	
+ Imports	127	-11.1%	-57.6%		143	2 212	
- Exports	227	-9.6%	20.2%		252	2 788	
= ELECTRICITY SUPPLIED	25 310	2.9%	1.6%		24 589	288 854	
- Used for pumped storage	-	-	-		-	-	
- T&D Losses <sup>4</sup>	3 370	2.8%	1.7%		3 278	38 489	
= ELECTRICITY CONSUMED	21 940	3.0%	1.6%		21 310	250 365	

<sup>4</sup> estimated

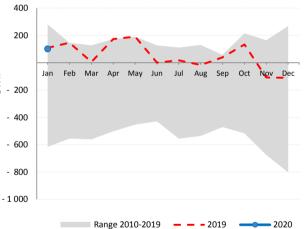
<sup>1</sup> current month to month of last year change

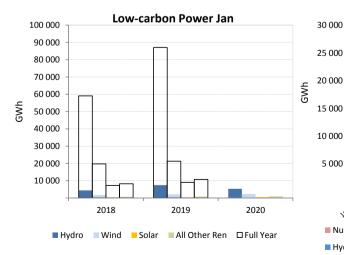
 $^{\rm 2}$  month-to-month change

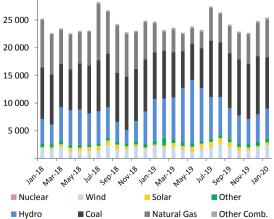
<sup>3</sup> referring to annual 2019 data











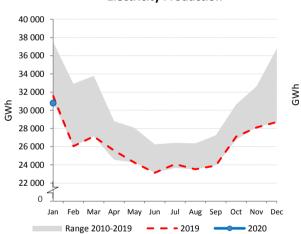
## UNITED KINGDOM

		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	16 039	-21.0%	5.8%	52.1%	20 298	177 795	56.8%
Coal	1 648	-15.2%	47.5%	5.4%	1 943	6 974	2.2%
Oil	118	-45.9%	-14.7%	0.4%	218	1 507	0.5%
Natural Gas	10 263	-30.1%	5.5%	33.3%	14 688	128 463	41.0%
Combustible Renewables	3 588	16.8%	-4.7%	11.7%	3 073	36 444	11.6%
Other Combustibles	421	12.0%	4.1%	1.4%	376	4 407	1.4%
Nuclear	4 829	9.2%	2.2%	15.7%	4 422	51 032	16.3%
Hydro	959	27.0%	7.4%	3.1%	755	7 597	2.4%
Wind	8 586	52.1%	12.9%	27.9%	5 647	64 018	20.4%
Solar	383	-18.9%	20.7%	1.2%	472	12 740	4.1%
Geothermal	-	-	-	-	-	-	-
Other Renewables	1	-	-	0.0%	1	8	0.0%
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	13 516	35.9%	7.4%	43.9%	9 948	120 808	38.6%
NON-RENEWABLES	17 280	-20.2%	7.2%	56.1%	21 647	192 383	61.4%
TOTAL NET PRODUCTION	30 797	-2.5%	7.3%		31 595	313 191	
+ Imports	1 823	7.0%	-19.1%		1 703	24 555	
- Exports	433	14.5%	15.1%		378	3 385	
= ELECTRICITY SUPPLIED	32 186	-2.2%	5.3%		32 919	334 361	
- Used for pumped storage	187	-32.8%	-15.6%		278	2 360	
- T&D Losses	3 214	10.6%	6.8%		2 906	28 063	
= ELECTRICITY CONSUMED	28 785	-3.2%	5.3%		29 736	303 937	

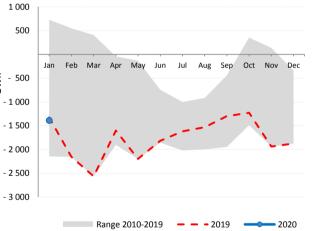
<sup>1</sup> current month to month of last year change

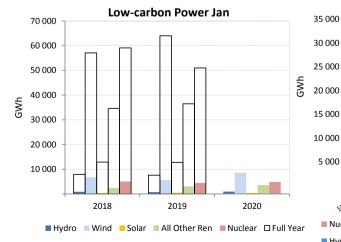
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data

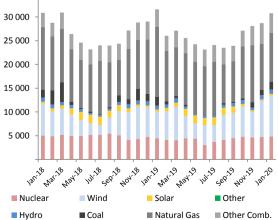


### Electricity Production





## Electricity Production by Fuel



## Net Electricity Exports

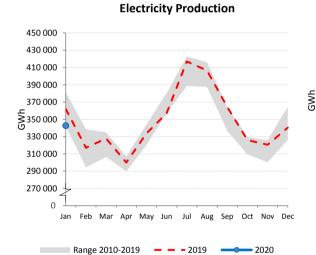
## UNITED STATES

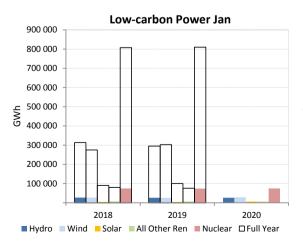
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	share <sup>3</sup>
CONVENTIONAL THERMAL	206 246	-10.2%	-1.8%	60.2%	229 800	2 644 619	63.4%
Coal	67 902	-34.9%	-10.0%	19.8%	104 276	1 001 588	24.0%
Oil	3 071	-5.1%	28.6%	0.9%	3 237	31 994	0.8%
Natural Gas	129 424	11.4%	2.5%	37.8%	116 158	1 541 941	37.0%
Combustible Renewables	5 012	-6.2%	-0.8%	1.5%	5 341	59 794	1.4%
Other Combustibles	838	6.4%	-0.8%	0.2%	787	9 302	0.2%
Nuclear	74 236	0.7%	1.5%	21.7%	73 733	809 588	19.4%
Hydro	25 928	-1.2%	9.7%	7.6%	26 235	295 007	7.1%
Wind	28 432	12.8%	4.5%	8.3%	25 196	302 357	7.2%
Solar	6 249	24.7%	30.1%	1.8%	5 012	99 766	2.4%
Geothermal	1 225	-13.8%	-3.5%	0.4%	1 421	15 924	0.4%
Other Renewables	-	-	-	-	-	-	-
Non-Specified	365	-22.4%	-10.2%	0.1%	471	4 956	0.1%
RENEWABLES	66 845	5.8%	7.9%	19.5%	63 206	772 848	18.5%
NON-RENEWABLES	275 836	-7.6%	-1.0%	80.5%	298 662	3 399 370	81.5%
TOTAL NET PRODUCTION	342 682	-5.3%	0.7%		361 868	4 172 218	
+ Imports	4 4 3 9	-12.0%	22.2%		5 046	54 491	
- Exports	1 007	9.4%	-16.1%		921	12 156	
= ELECTRICITY SUPPLIED	346 114	-5.4%	0.9%		365 994	4 214 552	
- Used for pumped storage	1 936	2.1%	4.7%		1 896	26 033	
- T&D Losses	18 277	-15.3%	-7.9%		21 589	239 632	
= ELECTRICITY CONSUMED	325 901	-4.8%	1.5%		342 509	3 948 887	

<sup>1</sup> current month to month of last year change

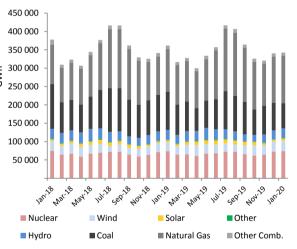
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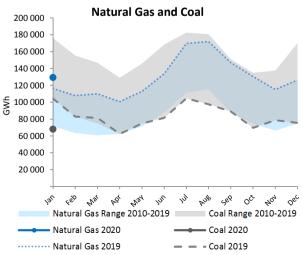
<sup>3</sup> referring to annual 2019 data



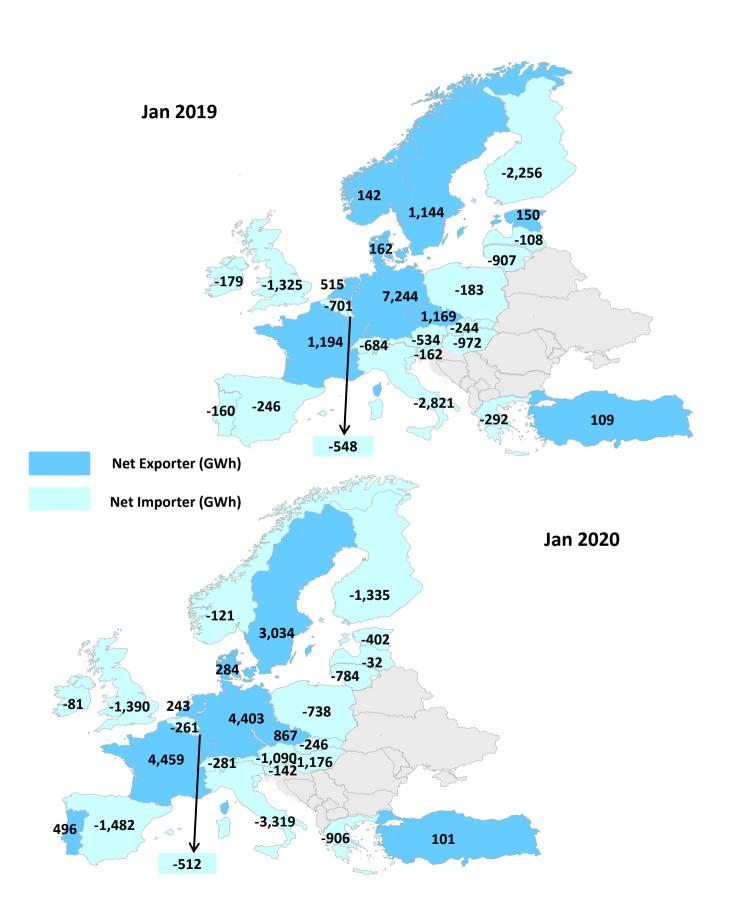


**Electricity Production by Fuel** 



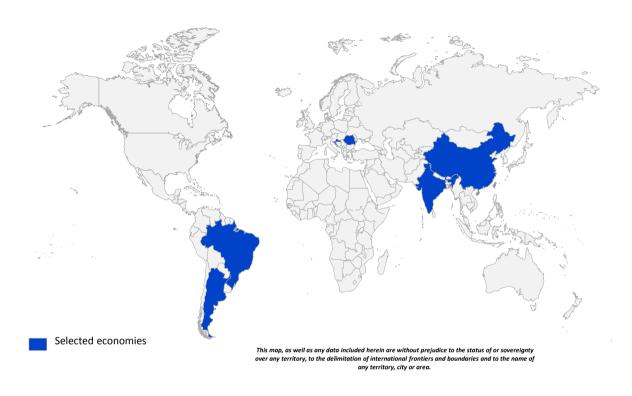


## NET ELECTRICITY EXPORTS OECD EUROPE MAP 1



## NET ELECTRICITY EXPORTS OECD EUROPE MAP 2

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

## HIGHLIGHTS

- This Monthly Electricity Statistics report includes electricity data for a selection of 6 additional countries. In this annex, only
  production data is presented, as the aim is to report as up-to-date and consistent information as possible. This annex will be
  updated on a monthly basis. For more information on definitions used and different countries, please refer to the pages
  "Principles and Definitions" and "Country Notes".
- In Argentina, nuclear production was nearly three times higher in January 2020 compared to January 2019. The Embalse
  nuclear power plant resumed operations in January 2019 after being shut down for 2 years for maintenance and was only
  generating partially in January 2019. There are 3 nuclear power plants in Argentina, all operating at full capacity in January
  2020, hence the higher share of 5.2% of the electricity mix.
- In India, renewable electricity production increased by 9.5% in January 2020 compared to January 2019. Hydro production was up by 18.4% in January 2020 compared to January 2019, to 9.7 TWh. Wind and solar productions also increased significantly compared to January 2019, up by 16.4% and 36.0% respectively, to reach 3.2 TWh and 4.6 TWh in January 2020.
- In Romania, coal production was 933.6 GWh in January 2020, 15.1% or 165.4 GWh lower than in January 2019. Coal production was at a historical minimum in January 2020, continuing the trend of lower production throughout 2019.

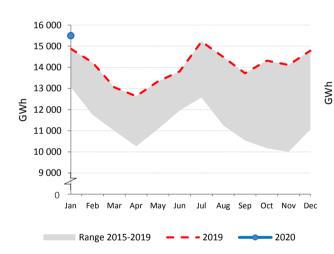
## ARGENTINA

		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	11 424	-0.2%	6.1%	73.7%	11 447	125 504	74.4%
Coal	75	832.7%	-59.1%	0.5%	8	916	0.5%
Oil	934	144.3%	477.2%	6.0%	382	4 363	2.6%
Natural Gas	10 342	-6.1%	0.1%	66.7%	11 011	119 184	70.7%
Combustible Renewables	73	60.1%	-19.8%	0.5%	46	1 042	0.6%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	799	294.7%	8.4%	5.2%	202	8 002	4.7%
Hydro	2 493	-14.1%	-2.8%	16.1%	2 902	29 340	17.4%
Wind	678	136.9%	13.1%	4.4%	286	4 960	2.9%
Solar	106	164.1%	-9.7%	0.7%	40	795	0.5%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	3 351	2.3%	-0.7%	21.6%	3 275	36 137	21.4%
NON-RENEWABLES	12 149	4.7%	6.4%	78.4%	11 603	132 465	78.6%
TOTAL NET PRODUCTION	15 500	4.2%	4.8%		14 878	168 602	

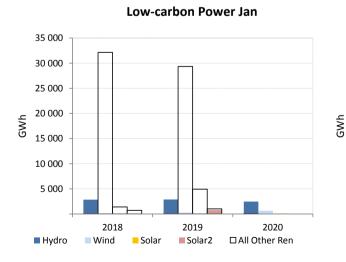
<sup>1</sup> current month to month of last year change

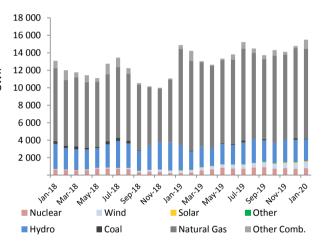
<sup>2</sup> month-to-month change

<sup>3</sup> referring to annual 2019 data



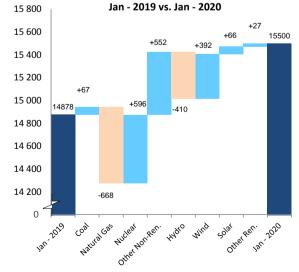
## **Electricity Production**





**Electricity Production Variation** 

Jan - 2019 vs. Jan - 2020

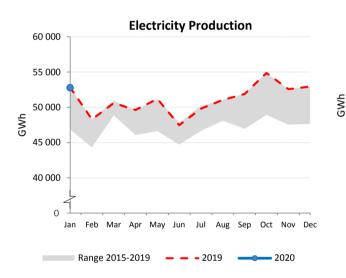


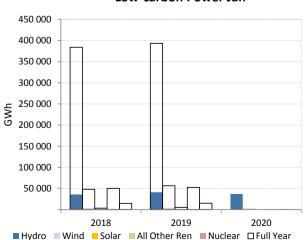
## BRAZIL

		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	11 676	104.7%	-9.5%	22.1%	5 705	143 140	23.3%
Coal	3 033	305.5%	4.7%	5.7%	748	23 772	3.9%
Oil	360	-33.9%	-49.8%	0.7%	545	8 672	1.4%
Natural Gas	6 878	105.7%	3.1%	13.0%	3 343	58 198	9.5%
Combustible Renewables	1 406	31.4%	-46.3%	2.7%	1 070	52 499	8.6%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	1 089	-18.3%	-21.8%	2.1%	1 334	15 261	2.5%
Hydro	36 687	-10.7%	11.6%	69.5%	41 096	392 872	64.1%
Wind	2 830	-34.5%	-46.1%	5.4%	4 318	56 531	9.2%
Solar	481	31.8%	-11.6%	0.9%	365	5 322	0.9%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	41 404	-11.6%	0.3%	78.5%	46 849	507 224	82.7%
NON-RENEWABLES	11 360	90.3%	-2.7%	21.5%	5 970	105 902	17.3%
TOTAL NET PRODUCTION	52 765	-0.1%	-0.3%		52 819	613 127	

<sup>1</sup> current month to month of last year change

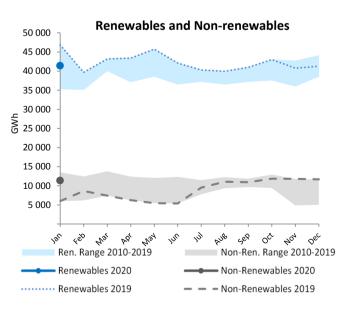
<sup>2</sup> month-to-month change <sup>-</sup> reterring to annual 2019 data







**Electricity Production by Fuel** 60 000 50 000 40 000 30 000 20 000 10 000 141-28 141-29 sepr19 404-19 Maril® May 18 Seption Jan 19 Mar.19 May 19 1811-20 NOV-18 Jan 18 Nuclear Solar ■ Hydro ■ Coal ■ Natural Gas ■ Other Comb.



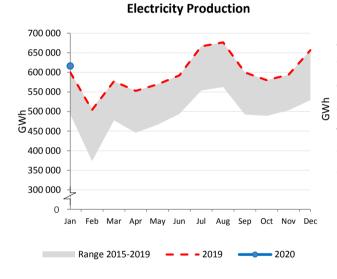
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## **CHINA**

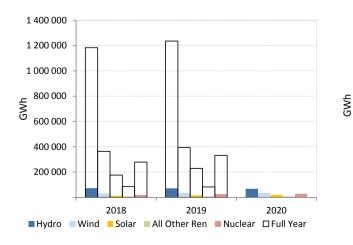
		Jan 2	2020			2019	
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	462 521	3.1%	-6.4%	75.1%	448 709	4 977 557	69.4%
Coal	434 817	3.1%	-6.4%	70.6%	421 832	4 679 409	65.3%
OIL	957	3.1%	-6.4%	0.2%	928	10 296	0.1%
Natural Gas	17 750	3.1%	-6.4%	2.9%	17 220	191 021	2.7%
Combustible Renewables	7 700	3.1%	-6.4%	1.2%	7 470	82 866	1.2%
Other Combustibles	1 298	3.1%	-6.4%	0.2%	1 259	13 965	0.2%
Nuclear	29 685	13.1%	-6.4%	4.8%	26 249	332 522	4.6%
Hydro	68 886	-5.2%	-6.4%	11.2%	72 635	1 235 283	17.2%
Wind <sup>5</sup>	35 717	-0.5%	-11.2%	5.8%	35 894	393 797	5.5%
Solar <sup>5</sup>	19 201	16.4%	13.7%	3.1%	16 491	230 164	3.2%
Geothermal	10	-	-	0.0%	10	115	0.0%
Other Renewables	1	-	-	0.0%	1	11	0.0%
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	131 514	-0.7%	-5.3%	21.3%	132 501	1 942 236	27.1%
NON-RENEWABLES	484 507	3.6%	-6.4%	78.7%	467 488	5 227 213	72.9%
TOTAL NET PRODUCTION	616 021	2.7%	-6.2%		599 989	7 169 449	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change <sup>-</sup> reterring to annual 2019 data

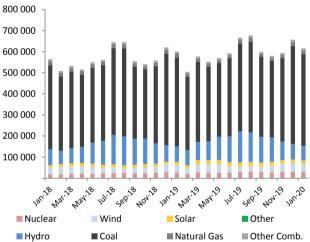


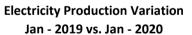
## Low-carbon Power Jan

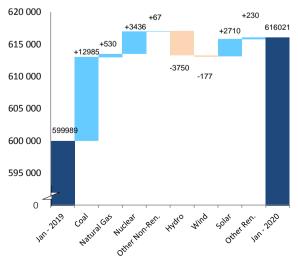


<sup>4</sup> estimated from annual data

<sup>°</sup> estimated for the month of January





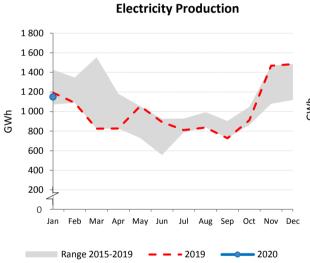


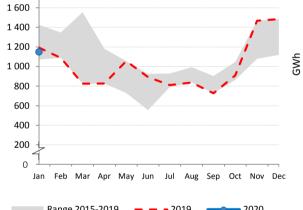
## **CROATIA**

		Jan 2	2020			2019	
	GWh	change <sup>1</sup>	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	460	-18.8%	21.7%	40.0%	566	4 750	39.2%
Coal	56	-61.9%	-32.1%	4.9%	147	1 505	12.4%
Oil	-	-	-	-	-	48	0.4%
Natural Gas	332	-7.3%	53.6%	28.9%	358	2 411	19.9%
Combustible Renewables	72	17.6%	-3.0%	6.2%	61	785	6.5%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro	566	20.4%	-38.9%	49.3%	470	5 858	48.3%
Wind	119	-22.7%	-32.6%	10.4%	155	1 433	11.8%
Solar	3	42.8%	47.5%	0.3%	2	78	0.6%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	761	10.5%	-35.6%	66.2%	688	8 156	67.3%
NON-RENEWABLES	388	-23.2%	27.7%	33.8%	505	3 964	32.7%
TOTAL NET PRODUCTION	1 149	-3.7%	-22.6%		1 193	12 120	

<sup>1</sup> current month to month of last year change

<sup>2</sup> month-to-month change <sup>~</sup> reterring to annual 2019 data

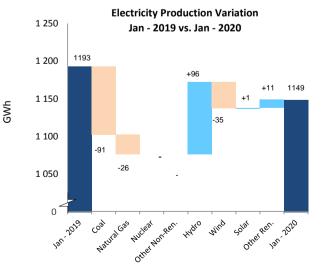




9 000 8 000 7 000 6 000 5 000 GWh 4 000 3 000 2 000 1 000 2018 2019 2020 ■ Hydro ■ Wind ■ Solar ■ All Other Ren ■ Nuclear □ Full Year

Low-carbon Power Jan

1 800 1 600 1 400 1 200 1 000 800 600 400 200 Mar-18 May18 141-18 Seption Nov.19 Jan 19 Mar.19 Marila Jul-19 sepi-19 Jan 18 404.19 Jan 20 Nuclear Wind Solar Other Hydro Coal Natural Gas Other Comb.

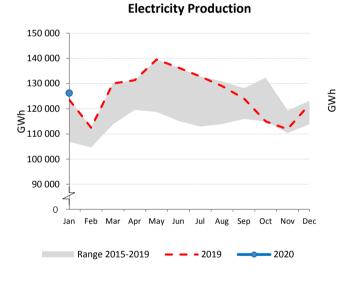


## **INDIA**

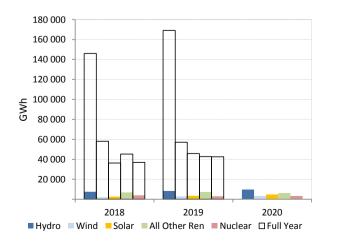
	Jan 2020				2019		
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	105 453	-0.7%	5.1%	83.6%	106 236	1 192 784	79.1%
Coal	94 248	1.2%	5.6%	74.7%	93 135	1 076 384	71.4%
Oil <sup>4</sup>	606	-2.3%	-11.8%	0.5%	620	9 699	0.6%
Natural Gas	4 496	-14.6%	-4.5%	3.6%	5 263	63 615	4.2%
Combustible Renewables	6 038	-15.6%	6.9%	4.8%	7 153	42 305	2.8%
Other Combustibles <sup>4</sup>	65	-	-	0.1%	65	781	0.1%
Nuclear	3 245	10.2%	-6.5%	2.6%	2 945	42 497	2.8%
Hydro	9 659	18.4%	-4.2%	7.7%	8 160	169 144	11.2%
Wind	3 195	16.4%	-15.8%	2.5%	2 745	57 086	3.8%
Solar	4 624	36.0%	17.3%	3.7%	3 401	45 721	3.0%
Geothermal	-	-	-	-	-	-	-
Other Renewables	24	-31.8%	-19.1%	0.0%	35	390	0.0%
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	23 540	9.5%	0.2%	18.7%	21 494	314 646	20.9%
NON-RENEWABLES	102 659	0.6%	4.6%	81.3%	102 027	1 192 975	79.1%
TOTAL NET PRODUCTION	126 199	2.2%	3.7%		123 522	1 507 621	

<sup>1</sup> current month to month of last year change

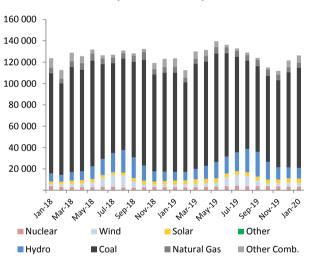
<sup>2</sup> month-to-month change <sup>~</sup> reterring to annual 2019 data



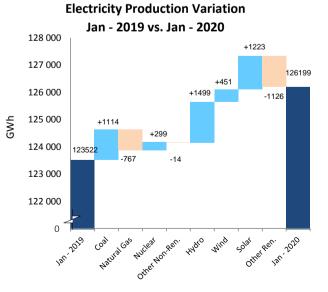




<sup>4</sup> estimated from annual data



**Electricity Production by Fuel** 



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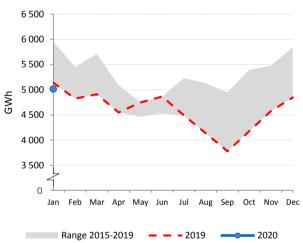
## **ROMANIA**

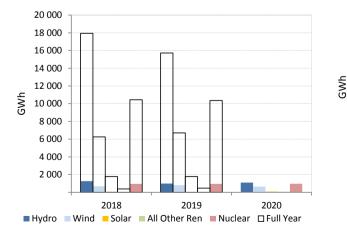
	Jan 2020				2019		
	GWh	$change^1$	change <sup>2</sup>	share	January	Annual	Share <sup>3</sup>
CONVENTIONAL THERMAL	2 236	-5.5%	12.6%	44.6%	2 366	20 498	37.2%
Coal	934	-15.1%	-4.5%	18.6%	1 099	11 848	21.5%
Oil	9	-83.3%	-25.0%	0.2%	52	197	0.4%
Natural Gas	1 234	5.5%	29.9%	24.6%	1 170	7 978	14.5%
Combustible Renewables	60	32.0%	26.9%	1.2%	45	474	0.9%
Other Combustibles	-	-	-	-	-	-	-
Nuclear	969	2.5%	-0.2%	19.3%	945	10 346	18.8%
Hydro	1 095	11.0%	1.7%	21.8%	986	15 715	28.6%
Wind	633	-20.4%	-15.4%	12.6%	795	6 701	12.2%
Solar	81	73.9%	27.0%	1.6%	46	1 777	3.2%
Geothermal	-	-	-	-	-	-	-
Other Renewables	-	-	-	-	-	-	-
Non-Specified	-	-	-	-	-	-	-
RENEWABLES	1 868	-0.2%	-3.5%	37.3%	1 872	24 668	44.8%
NON-RENEWABLES	3 145	-3.7%	8.1%	62.7%	3 266	30 369	55.2%
TOTAL NET PRODUCTION	5 013	-2.4%	3.5%		5 138	55 037	

<sup>1</sup> current month to month of last year change

**Electricity Production** 

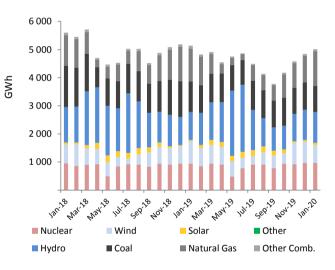
<sup>2</sup> month-to-month change <sup>~</sup> reterring to annual 2019 data



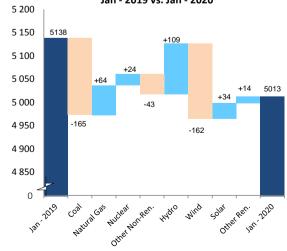


### Low-carbon Power Jan

**Electricity Production by Fuel** 



**Electricity Production Variation** Jan - 2019 vs. Jan - 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 tables in this publication.

### **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 recalcuations.
- Countries' submitted monthly data is adjusted proportionately to maintain consistency with the most recent annual data for each generation source.

Net generation excludes power station own use.
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).
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).
Production from crude oil, natural gas liquids, refinery feedstocks, and petroleum products (such as refinery gases and fuel oil).
Production from natural gas (including gas distributed via the grid that may contain very little amounts of blended other gases).
Production from combustible renewables (such as solid biofuels, biogases, liquid biofuels, municipal renewable waste).
Production from all other combustible fuels (such as industrial and non-renewable municipal solid waste).

## **Basic definitions**

Nuclear	Electricity produced using heat generated from nuclear fission.
Hydro	Net generation from hydro facilities including pumped storage production.
Wind	Electricity generated in on-shore and off-shore wind turbines using kinetic energy of wind.
Solar	Electricity generated using solar radiation. Icludes thermal and photovoltaic.
Geothermal	Electricity generated using heat emitted from within the earth's crust, usually in the form of hot water or steam.
Other Renewables	Electricity generated from tide, wave, ocean and other non-combustible sources.
Non-Specified	Not elsewhere reported electricity generation.
Renewables	Includes electricity generation from Hydro, Wind, Solar, Geothermal, Other Renewables and Combustible Renewables
Non-Renewables	Includes electricity generation from Coal, Oil, Natural Gas, Other Combustibles, Nuclear and Non-specified sources.
Total Net Production	The sum of indingenous net electricity production by energy source.
Imports/ Exports	Amounts of electricity that have crossed political boundaries of the country, a.k.a. physical flows, whether customs clearance has taken place or not.
Net Exports	Exports minus imports
Electricity supplied	Indigenous production + Imports - Exports. It includes Transmission and Distribution losses.
Used for Pumped Storage	Electricity consumed by pumping water into a reservoir in mixed and pure pumped storage hydro plants.
Transmission and Distribution Losses/ T&D Losses	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.
Electricity consumed	Electricity available (calculated as: Indigenous production + Imports - Exports - used for pumped storage - Transmission and distribution losses)
Low-carbon Power Generation	Renewables plus Nuclear electricity generation.
Year	Calendar year (January to December) unless otherwise stated.
Year-to-Date	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, 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-oecd-electricity-statistics/
- Subscriptions to this publication are available at http://mailing.iea.org
- Data should not be reproduced for publication without permission of the IEA.
- Please note that all IEA data are subject to the following Terms and Conditions found on the IEA's website: http://www.iea.org/terms

## 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 1<sup>st</sup> of July and ending 31<sup>st</sup> 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.

#### 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.

#### 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.

#### **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.

#### 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 2008 until December 2010.

#### 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 1<sup>st</sup> of April and ending 31<sup>st</sup> 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 is 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 cas figures for Mav 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.

#### **SLOVENI**

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.

#### 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 2006.

#### 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 monthy 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 montly 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 1<sup>st</sup> of April and ending 31<sup>st</sup> 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.

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