

Statistics report

# Monthly OECD Electricity Statistics

Next release: 15 July 2020

Data up to March 2020



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## MONTHLY ELECTRICITY STATISTICS

### March 2020

#### HIGHLIGHTS

By March 2020, the impacts of country confinement measures due to Covid-19 can be seen on the monthly electricity production figures. A more detailed analysis by the IEA secretariat of the impacts can be found at [www.iea.org/reports/covid-19-impact-on-electricity](http://www.iea.org/reports/covid-19-impact-on-electricity)

#### OECD

- In March 2020, total net production in the OECD was 850.0 TWh, 3.3% lower than in March 2019. Electricity production during the first quarter of 2020 was 2,645.0 TWh compared to 2,707.7 TWh during the same period in 2019.
- Renewable electricity production was 286.5 TWh, up by 7.1% compared to March 2019. Renewables accounted for 33.7% of total electricity production. During the first three months of 2020, the share of renewable production increased by 10.7% compared to the same period last year and was 844.7 TWh.
- Conventional thermal production was 433.7 TWh in March 2020, 7.9% lower than in March 2019 and 3.8% lower than in February 2020. Conventional thermal production was 1,390.7 TWh during the first quarter of 2020, 8.1% lower than during the same period last year. Coal production was 500.9 TWh over the first three months of 2020, 21.8% lower than over the same period in 2019.

#### OECD Americas

- Net electricity production in OECD Americas was 401.0 TWh in March 2020, 4.0% lower than in March 2019. Renewable electricity production was 115.5 TWh, 1.7% lower than in February 2020 and accounted for 28.8% of total production. During the first three months of 2020, conventional thermal production was 684.2 TWh with a share of 57.4% of total production, which fell by 7.0%, or 51.8 TWh compared to the same period in 2019.
- In Canada, nuclear production was 8.4 TWh in March 2020, 12.8% higher than in March 2019. During the first three months of 2020, nuclear production was 25.7 TWh, up by 2.0 TWh or 8.6% compared to the same period in 2019. Conventional thermal production on the other hand, was 10.4% lower during the first quarter of 2020 compared to the same period in 2019 and was 33.8 TWh compared to 37.7 TWh in 2019.
- In the United States, coal production in the first quarter of 2020 was the lowest on record, and 181.4 TWh compared to 271.4 TWh during the first quarter in 2019. Coal production decreased by 33.1% and was the main driver of the decrease in conventional thermal production, which was 580.2 TWh during the first quarter of 2020 compared to 631.6 TWh in the first three months of 2019. In March 2020, coal provided 17.3% of the total electricity production, compared to 25.1% in March 2019.

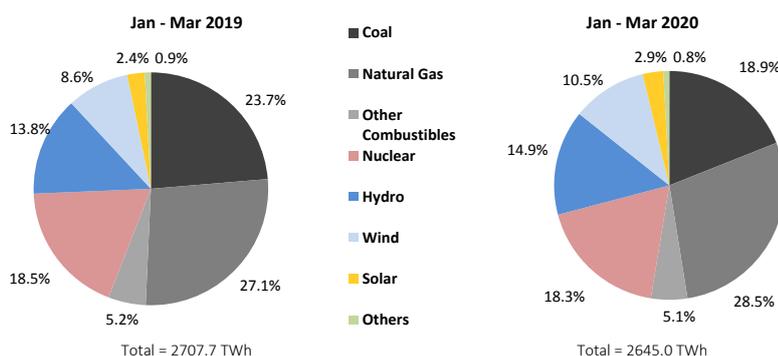
#### OECD Asia/Oceania

- In OECD Asia/Oceania, net electricity production was 151.8 TWh, down by 3.3% compared to March 2019 and by 1.8% compared to February 2020. Renewable electricity production was 29.0 TWh, 25.1% higher than in March 2019. This increase is driven by hydroelectricity, which was 21.8% higher than in March 2019. During the first quarter of 2020, hydro production was 31.4 TWh compared to 26.1 TWh during the same period in 2019.
- In Korea, coal production decreased by 9.4 TWh, or 15.7% during the first quarter of 2020. In March, coal production was 14.4 TWh, down by 17.4% compared to March 2019 and 15.4% compared to February 2020. This significant decrease is a result of the policy to reduce air pollution by shutting down coal power plants. In early March, Korea announced that up to 28 coal power plants would stop producing electricity in March 2020.

#### OECD Europe

- Net electricity production in OECD Europe was 297.3 TWh in March 2020, down by 2.5% compared to March 2019 and down by 1.3% compared to February 2020. Renewables provided 142.0 TWh, or 47.7% of total electricity production. As a result of wetter than average conditions, hydro production was 59.1 TWh, 19.8% higher than in March 2019 and 11.1% higher than in February 2020, contributing to the increase in renewable production.
- In Norway, hydro production was 13.0 TWh, 24.2% higher than in March 2019 and 10.2% higher than in February 2020, as precipitation levels were above average in Western Norway. Hydro provided 91.4% of total electricity production, which increased by 26.0% compared to March 2019 to reach 14.2 TWh. As a result, electricity exports increased by 357.8% compared to March 2019, to reach 1,735.4 GWh in March 2020 compared to 379.0 GWh in March 2019.
- Due to the Covid-19 pandemic, strict lockdown measures were implemented in Italy from 9 March 2020. As a consequence of lower demand, net electricity production decreased by 12.0% compared to March 2019 and 8.2% compared to February 2020, down to 20.1 TWh, the lowest production level recorded since 2009. This drop was driven by conventional thermal production which was 12.9 TWh, 16.0% lower than in March 2019 and 11.4% lower than in February 2020.
- In Estonia, electricity production during the first quarter of 2020 was 1,247.8 GWh, 50.3% lower than during the first quarter of 2019. Electricity imports on the other hand have more than doubled, up by 136.2% compared to the first three months of 2019, to reach 1,913.9 GWh. As a result of continued lower natural gas prices and rising carbon prices and because the primary source of electricity in Estonia is coal, imported electricity became more competitive in 2019, and during the first quarter of 2020.

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



# OECD Total

|  | Mar 2020     |                     |                     |              | Year-to-Date   |                |                     | 2019            |              |
|--|--------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|-----------------|--------------|
|  | TWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | TWh             | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>433.7</b> | <b>-7.9%</b>        | <b>-3.8%</b>        | <b>51.0%</b> | <b>1 390.7</b> | <b>1 513.2</b> | <b>-8.1%</b>        | <b>5 951.8</b>  | <b>56.3%</b> |
| Coal <sup>5</sup>                      | 151.9        | -21.6%              | -6.4%               | 17.9%        | 500.9          | 640.8          | -21.8%              | 2 355.6         | 22.3%        |
| Oil <sup>5</sup>                       | 12.9         | -14.9%              | -4.7%               | 1.5%         | 41.7           | 48.7           | -14.4%              | 181.7           | 1.7%         |
| Natural Gas <sup>5</sup>               | 237.8        | 2.7%                | -3.0%               | 28.0%        | 754.9          | 732.5          | 3.1%                | 3 066.9         | 29.0%        |
| Combustible Renewables <sup>5</sup>    | 28.1         | 8.1%                | 5.6%                | 3.3%         | 83.7           | 77.2           | 8.5%                | 307.3           | 2.9%         |
| Other Combustibles <sup>5</sup>        | 3.1          | -35.3%              | 2.3%                | 0.4%         | 9.5            | 14.1           | -32.3%              | 40.2            | 0.4%         |
| <b>Nuclear</b>                         | <b>154.8</b> | <b>-5.6%</b>        | <b>-0.7%</b>        | <b>18.2%</b> | <b>483.9</b>   | <b>499.6</b>   | <b>-3.1%</b>        | <b>1 901.9</b>  | <b>18.0%</b> |
| <b>Hydro</b>                           | <b>132.8</b> | <b>7.3%</b>         | <b>2.9%</b>         | <b>15.6%</b> | <b>393.0</b>   | <b>373.8</b>   | <b>5.1%</b>         | <b>1 444.1</b>  | <b>13.7%</b> |
| <b>Wind</b>                            | <b>88.4</b>  | <b>4.0%</b>         | <b>-11.3%</b>       | <b>10.4%</b> | <b>278.8</b>   | <b>233.1</b>   | <b>19.6%</b>        | <b>832.0</b>    | <b>7.9%</b>  |
| <b>Solar</b>                           | <b>32.6</b>  | <b>15.6%</b>        | <b>34.4%</b>        | <b>3.8%</b>  | <b>76.2</b>    | <b>64.9</b>    | <b>17.5%</b>        | <b>349.7</b>    | <b>3.3%</b>  |
| <b>Geothermal</b>                      | <b>4.5</b>   | <b>2.3%</b>         | <b>11.7%</b>        | <b>0.5%</b>  | <b>12.8</b>    | <b>13.7</b>    | <b>-6.7%</b>        | <b>51.2</b>     | <b>0.5%</b>  |
| <b>Other Renewables</b>                | <b>0.1</b>   | <b>0.0%</b>         | <b>-</b>            | <b>0.0%</b>  | <b>0.2</b>     | <b>0.2</b>     | <b>-0.4%</b>        | <b>1.0</b>      | <b>0.0%</b>  |
| <b>Non-Specified</b>                   | <b>3.1</b>   | <b>2.5%</b>         | <b>-1.6%</b>        | <b>0.4%</b>  | <b>9.4</b>     | <b>9.2</b>     | <b>2.6%</b>         | <b>37.2</b>     | <b>0.4%</b>  |
| <b>RENEWABLES</b>                      | <b>286.5</b> | <b>7.1%</b>         | <b>1.0%</b>         | <b>33.7%</b> | <b>844.7</b>   | <b>762.9</b>   | <b>10.7%</b>        | <b>2 985.2</b>  | <b>28.2%</b> |
| <b>NON-RENEWABLES</b>                  | <b>563.5</b> | <b>-7.9%</b>        | <b>-3.4%</b>        | <b>66.3%</b> | <b>1 800.3</b> | <b>1 944.8</b> | <b>-7.4%</b>        | <b>7 583.5</b>  | <b>71.8%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>850.0</b> | <b>-3.3%</b>        | <b>-1.9%</b>        |              | <b>2 645.0</b> | <b>2 707.7</b> | <b>-2.3%</b>        | <b>10 568.7</b> |              |
| + Imports                              | 42.8         | -4.0%               | 0.8%                |              | 130.6          | 129.1          | 1.2%                | 487.7           |              |
| - Exports                              | 42.4         | 1.9%                | -1.3%               |              | 130.7          | 123.8          | 5.6%                | 474.9           |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>850.4</b> | <b>-3.6%</b>        | <b>-1.8%</b>        |              | <b>2 644.8</b> | <b>2 713.0</b> | <b>-2.5%</b>        | <b>10 581.6</b> |              |
| - Used for pumped storage <sup>4</sup> | 7.2          | 6.6%                | 5.1%                |              | 21.0           | 19.9           | 5.7%                | 84.1            |              |
| - T&D Losses <sup>4</sup>              | 46.2         | -5.1%               | -7.9%               |              | 150.5          | 152.5          | -1.3%               | 610.8           |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>797.1</b> | <b>-3.6%</b>        | <b>-1.5%</b>        |              | <b>2 473.3</b> | <b>2 540.5</b> | <b>-2.6%</b>        | <b>9 886.7</b>  |              |

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

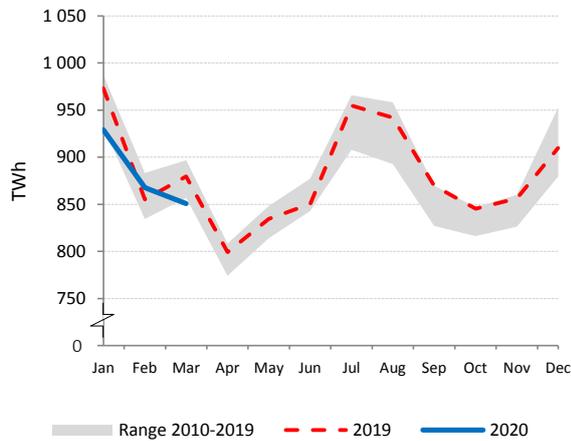
<sup>4</sup> estimated for certain countries

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

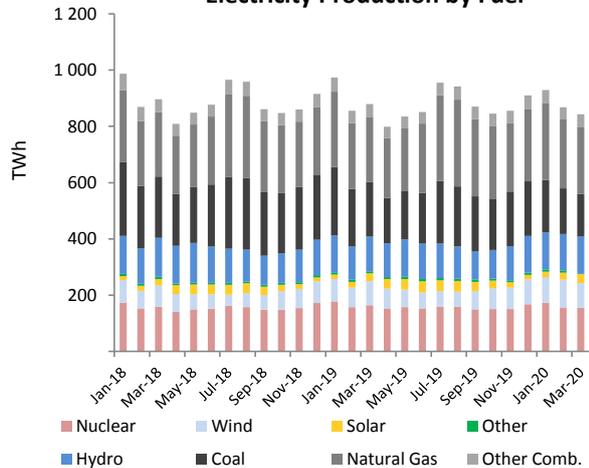
<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Canada, Estonia and Italy

<sup>3</sup> year-to-date compared to same period last year

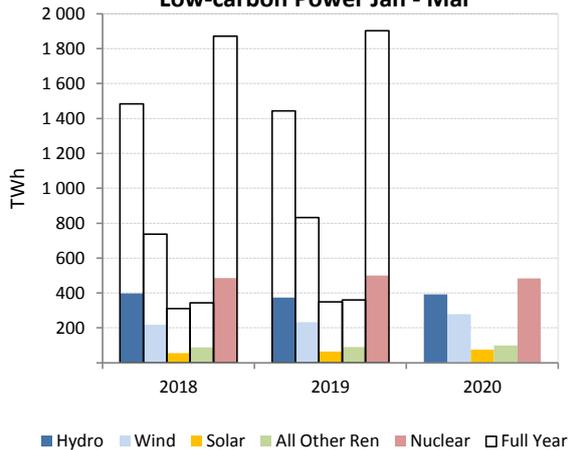
Electricity Production



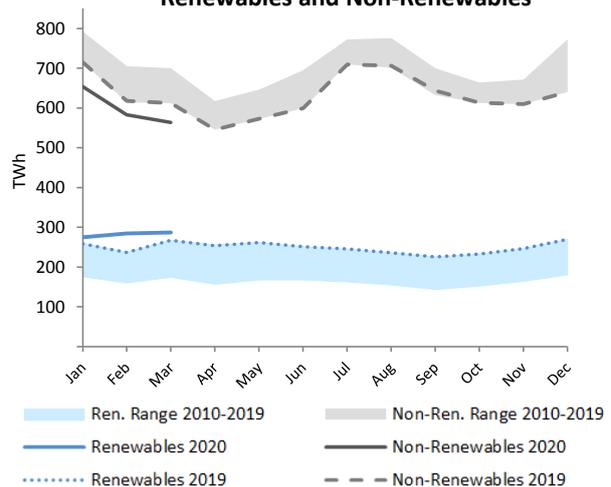
Electricity Production by Fuel



Low-carbon Power Jan - Mar



Renewables and Non-Renewables



# OECD Americas

|  | Mar 2020     |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|--|--------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|  | TWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | TWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>218.0</b> | <b>-7.7%</b>        | <b>-2.8%</b>        | <b>54.4%</b> | <b>684.2</b>   | <b>736.0</b>   | <b>-7.0%</b>        | <b>3 096.1</b> | <b>59.2%</b> |
| Coal <sup>5</sup>                      | 62.1         | -32.2%              | -8.2%               | 15.5%        | 207.0          | 298.4          | -30.6%              | 1 116.7        | 21.3%        |
| Oil <sup>5</sup>                       | 7.0          | 19.6%               | 8.9%                | 1.7%         | 20.2           | 18.3           | 10.4%               | 80.0           | 1.5%         |
| Natural Gas <sup>5</sup>               | 141.6        | 7.9%                | -1.2%               | 35.3%        | 435.3          | 397.1          | 9.6%                | 1 811.8        | 34.6%        |
| Combustible Renewables <sup>5</sup>    | 6.4          | -3.5%               | 4.1%                | 1.6%         | 19.2           | 19.9           | -3.7%               | 77.7           | 1.5%         |
| Other Combustibles <sup>5</sup>        | 0.9          | 16.1%               | 9.9%                | 0.2%         | 2.5            | 2.3            | 10.7%               | 9.8            | 0.2%         |
| <b>Nuclear</b>                         | <b>73.6</b>  | <b>0.0%</b>         | <b>-1.9%</b>        | <b>18.3%</b> | <b>233.3</b>   | <b>229.6</b>   | <b>1.6%</b>         | <b>921.5</b>   | <b>17.6%</b> |
| <b>Hydro</b>                           | <b>62.3</b>  | <b>-4.2%</b>        | <b>-5.5%</b>        | <b>15.5%</b> | <b>196.6</b>   | <b>199.1</b>   | <b>-1.3%</b>        | <b>720.9</b>   | <b>13.8%</b> |
| <b>Wind</b>                            | <b>34.9</b>  | <b>10.5%</b>        | <b>-0.4%</b>        | <b>8.7%</b>  | <b>103.4</b>   | <b>90.1</b>    | <b>14.8%</b>        | <b>356.1</b>   | <b>6.8%</b>  |
| <b>Solar</b>                           | <b>10.0</b>  | <b>9.9%</b>         | <b>12.8%</b>        | <b>2.5%</b>  | <b>26.2</b>    | <b>21.0</b>    | <b>24.5%</b>        | <b>110.8</b>   | <b>2.1%</b>  |
| <b>Geothermal</b>                      | <b>1.9</b>   | <b>-1.0%</b>        | <b>20.8%</b>        | <b>0.5%</b>  | <b>5.1</b>     | <b>5.5</b>     | <b>-8.1%</b>        | <b>21.1</b>    | <b>0.4%</b>  |
| <b>Other Renewables</b>                | -            | -                   | -                   | -            | -              | 0.0            | -                   | 0.0            | 0.0%         |
| <b>Non-Specified</b>                   | <b>0.3</b>   | <b>-19.5%</b>       | <b>8.1%</b>         | <b>0.1%</b>  | <b>1.0</b>     | <b>1.2</b>     | <b>-18.3%</b>       | <b>4.9</b>     | <b>0.1%</b>  |
| <b>RENEWABLES</b>                      | <b>115.5</b> | <b>1.1%</b>         | <b>-1.7%</b>        | <b>28.8%</b> | <b>350.5</b>   | <b>335.7</b>   | <b>4.4%</b>         | <b>1 286.7</b> | <b>24.6%</b> |
| <b>NON-RENEWABLES</b>                  | <b>285.5</b> | <b>-5.9%</b>        | <b>-2.7%</b>        | <b>71.2%</b> | <b>899.3</b>   | <b>946.9</b>   | <b>-5.0%</b>        | <b>3 944.8</b> | <b>75.4%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>401.0</b> | <b>-4.0%</b>        | <b>-2.5%</b>        |              | <b>1 249.8</b> | <b>1 282.6</b> | <b>-2.6%</b>        | <b>5 231.5</b> |              |
| + Imports                              | 5.6          | -7.7%               | 8.7%                |              | 16.4           | 17.5           | -6.3%               | 69.9           |              |
| - Exports                              | 6.6          | 13.4%               | 9.1%                |              | 18.8           | 17.5           | 7.3%                | 73.2           |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>400.0</b> | <b>-4.3%</b>        | <b>-2.5%</b>        |              | <b>1 247.4</b> | <b>1 282.6</b> | <b>-2.7%</b>        | <b>5 228.2</b> |              |
| - Used for pumped storage <sup>4</sup> | 1.7          | -6.4%               | 0.5%                |              | 5.4            | 5.6            | -3.2%               | 26.2           |              |
| - T&D Losses <sup>4</sup>              | 18.0         | -14.1%              | -15.9%              |              | 62.2           | 65.2           | -4.7%               | 287.8          |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>380.3</b> | <b>-3.8%</b>        | <b>-1.8%</b>        |              | <b>1 179.9</b> | <b>1 211.8</b> | <b>-2.6%</b>        | <b>4 914.2</b> |              |

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

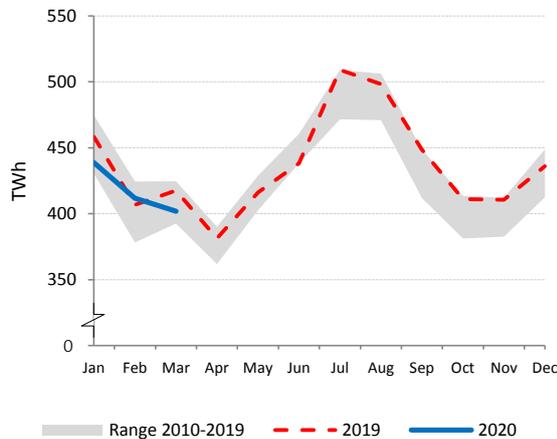
<sup>4</sup> estimated for certain countries

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

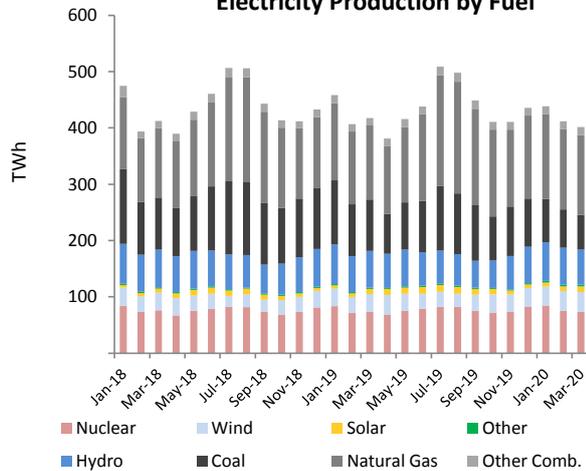
<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Canada

<sup>3</sup> year-to-date compared to same period last year

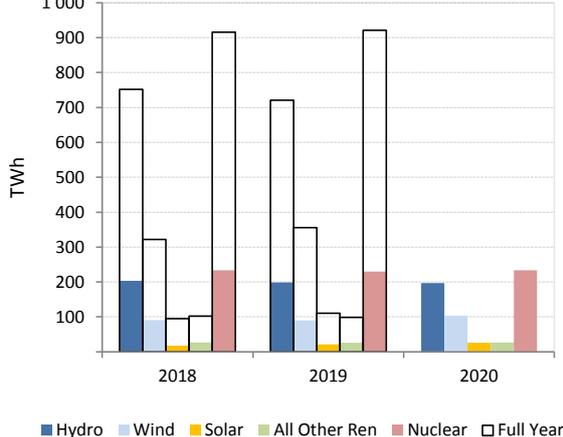
Electricity Production



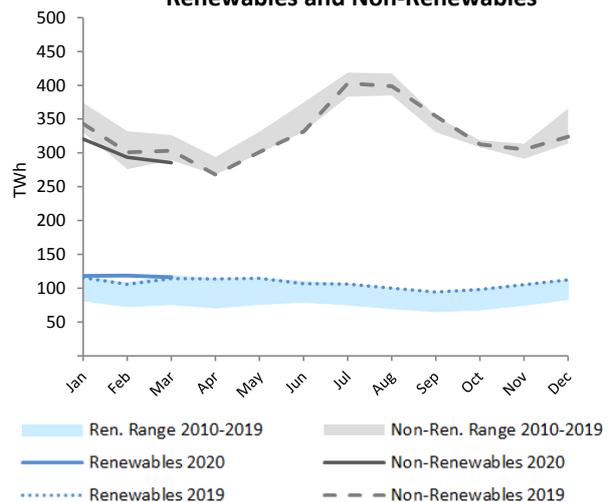
Electricity Production by Fuel



Low-carbon Power Jan - Mar



Renewables and Non-Renewables



# OECD Asia Oceania

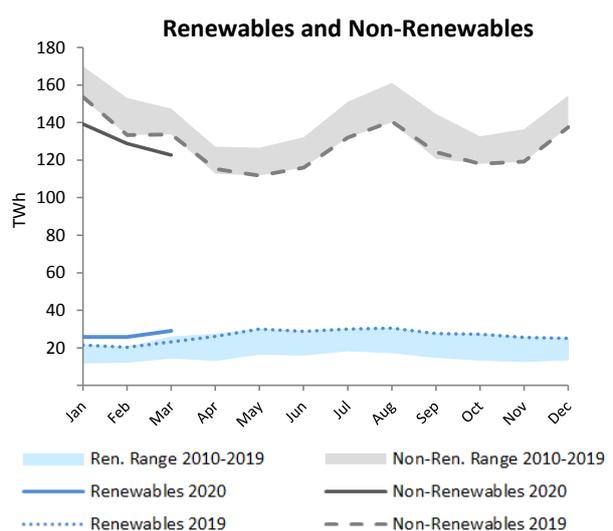
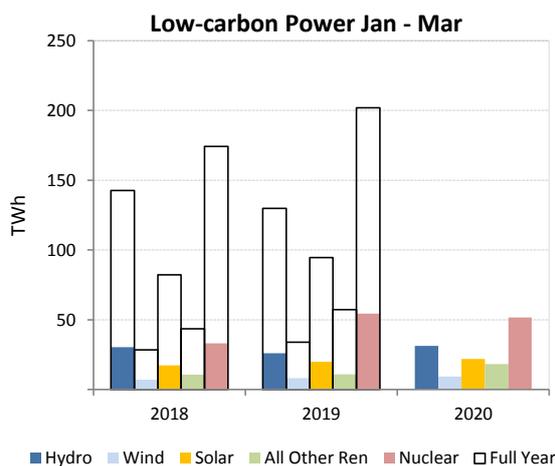
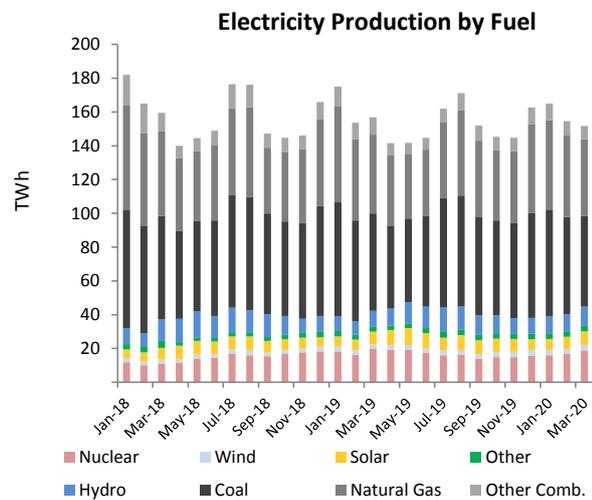
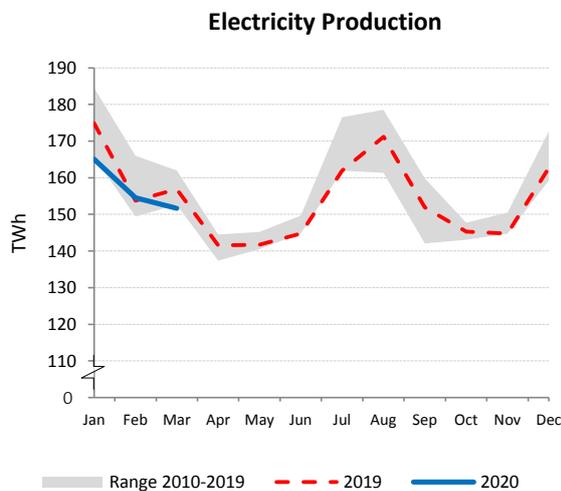
|  | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019           |              |
|--|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|----------------|--------------|
|  | TWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | TWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>106.9</b> | <b>-6.7%</b>        | <b>-6.5%</b>        | <b>70.5%</b> | <b>347.2</b> | <b>367.9</b> | <b>-5.6%</b>        | <b>1 353.5</b> | <b>73.1%</b> |
| Coal                                   | 53.6         | -7.1%               | -7.1%               | 35.4%        | 174.4        | 184.7        | -5.6%               | 701.2          | 37.9%        |
| Oil                                    | 2.3          | -56.5%              | -32.7%              | 1.5%         | 10.1         | 17.6         | -42.6%              | 51.7           | 2.8%         |
| Natural Gas                            | 45.6         | -2.2%               | -5.3%               | 30.1%        | 146.9        | 151.7        | -3.2%               | 547.6          | 29.6%        |
| Combustible Renewables                 | 5.3          | 78.8%               | 5.9%                | 3.5%         | 15.6         | 8.5          | 84.1%               | 46.9           | 2.5%         |
| Other Combustibles                     | 0.1          | -97.0%              | -9.7%               | 0.0%         | 0.2          | 5.4          | -96.2%              | 6.0            | 0.3%         |
| <b>Nuclear</b>                         | <b>18.8</b>  | <b>-5.6%</b>        | <b>10.6%</b>        | <b>12.4%</b> | <b>51.8</b>  | <b>54.5</b>  | <b>-5.0%</b>        | <b>202.0</b>   | <b>10.9%</b> |
| <b>Hydro</b>                           | <b>11.4</b>  | <b>21.8%</b>        | <b>14.1%</b>        | <b>7.5%</b>  | <b>31.4</b>  | <b>26.1</b>  | <b>20.4%</b>        | <b>129.9</b>   | <b>7.0%</b>  |
| <b>Wind</b>                            | <b>3.2</b>   | <b>20.2%</b>        | <b>10.8%</b>        | <b>2.1%</b>  | <b>9.2</b>   | <b>8.1</b>   | <b>13.9%</b>        | <b>33.8</b>    | <b>1.8%</b>  |
| <b>Solar</b>                           | <b>8.3</b>   | <b>12.5%</b>        | <b>16.6%</b>        | <b>5.5%</b>  | <b>21.9</b>  | <b>19.8</b>  | <b>10.8%</b>        | <b>94.6</b>    | <b>5.1%</b>  |
| <b>Geothermal</b>                      | <b>0.8</b>   | <b>-1.3%</b>        | <b>4.3%</b>         | <b>0.5%</b>  | <b>2.4</b>   | <b>2.4</b>   | <b>1.2%</b>         | <b>9.8</b>     | <b>0.5%</b>  |
| <b>Other Renewables</b>                | <b>0.0</b>   | <b>-</b>            | <b>-</b>            | <b>0.0%</b>  | <b>0.1</b>   | <b>0.1</b>   | <b>-</b>            | <b>0.5</b>     | <b>0.0%</b>  |
| <b>Non-Specified</b>                   | <b>2.3</b>   | <b>8.3%</b>         | <b>-3.4%</b>        | <b>1.5%</b>  | <b>7.2</b>   | <b>6.7</b>   | <b>7.6%</b>         | <b>27.2</b>    | <b>1.5%</b>  |
| <b>RENEWABLES</b>                      | <b>29.0</b>  | <b>25.1%</b>        | <b>12.5%</b>        | <b>19.1%</b> | <b>80.7</b>  | <b>65.0</b>  | <b>24.2%</b>        | <b>315.6</b>   | <b>17.0%</b> |
| <b>NON-RENEWABLES</b>                  | <b>122.7</b> | <b>-8.2%</b>        | <b>-4.7%</b>        | <b>80.9%</b> | <b>390.6</b> | <b>420.6</b> | <b>-7.1%</b>        | <b>1 535.7</b> | <b>83.0%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>151.7</b> | <b>-3.3%</b>        | <b>-1.8%</b>        |              | <b>471.3</b> | <b>485.6</b> | <b>-2.9%</b>        | <b>1 851.3</b> |              |
| + Imports                              | -            | -                   | -                   |              | -            | -            | -                   | -              |              |
| - Exports                              | -            | -                   | -                   |              | -            | -            | -                   | -              |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>151.7</b> | <b>-3.3%</b>        | <b>-1.8%</b>        |              | <b>471.3</b> | <b>485.6</b> | <b>-2.9%</b>        | <b>1 851.3</b> |              |
| - Used for pumped storage <sup>4</sup> | 1.4          | 5.5%                | -1.7%               |              | 4.2          | 4.1          | 1.0%                | 16.8           |              |
| - T&D Losses <sup>4</sup>              | 6.3          | -0.4%               | -0.7%               |              | 19.5         | 19.6         | -0.7%               | 79.6           |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>144.0</b> | <b>-3.5%</b>        | <b>-1.9%</b>        |              | <b>447.7</b> | <b>461.8</b> | <b>-3.1%</b>        | <b>1 754.9</b> |              |

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

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

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

<sup>3</sup> year-to-date compared to same period last year



# OECD Europe

|  | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019           |              |
|--|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|----------------|--------------|
|  | TWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | TWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>108.8</b> | <b>-9.6%</b>        | <b>-2.8%</b>        | <b>36.6%</b> | <b>359.2</b> | <b>409.4</b> | <b>-12.3%</b>       | <b>1 502.2</b> | <b>43.1%</b> |
| Coal <sup>5</sup>                      | 36.1         | -18.5%              | -2.0%               | 12.2%        | 119.5        | 157.8        | -24.2%              | 537.7          | 15.4%        |
| Oil <sup>5</sup>                       | 3.6          | -11.1%              | -2.8%               | 1.2%         | 11.4         | 12.8         | -11.0%              | 50.0           | 1.4%         |
| Natural Gas <sup>5</sup>               | 50.5         | -5.5%               | -5.9%               | 17.0%        | 172.7        | 183.7        | -6.0%               | 707.5          | 20.3%        |
| Combustible Renewables <sup>5</sup>    | 16.4         | 0.1%                | 6.0%                | 5.5%         | 48.9         | 48.8         | 0.3%                | 182.7          | 5.2%         |
| Other Combustibles <sup>5</sup>        | 2.2          | 5.3%                | 0.0%                | 0.7%         | 6.8          | 6.4          | 6.7%                | 24.4           | 0.7%         |
| <b>Nuclear</b>                         | <b>62.5</b>  | <b>-11.5%</b>       | <b>-2.2%</b>        | <b>21.0%</b> | <b>198.9</b> | <b>215.5</b> | <b>-7.7%</b>        | <b>778.4</b>   | <b>22.3%</b> |
| <b>Hydro</b>                           | <b>59.1</b>  | <b>19.8%</b>        | <b>11.1%</b>        | <b>19.9%</b> | <b>165.0</b> | <b>148.6</b> | <b>11.0%</b>        | <b>593.3</b>   | <b>17.0%</b> |
| <b>Wind</b>                            | <b>50.4</b>  | <b>-0.9%</b>        | <b>-18.5%</b>       | <b>16.9%</b> | <b>166.1</b> | <b>134.9</b> | <b>23.1%</b>        | <b>442.0</b>   | <b>12.7%</b> |
| <b>Solar</b>                           | <b>14.3</b>  | <b>22.0%</b>        | <b>72.5%</b>        | <b>4.8%</b>  | <b>28.2</b>  | <b>24.1</b>  | <b>17.0%</b>        | <b>144.2</b>   | <b>4.1%</b>  |
| <b>Geothermal</b>                      | <b>1.8</b>   | <b>7.9%</b>         | <b>6.8%</b>         | <b>0.6%</b>  | <b>5.3</b>   | <b>5.8</b>   | <b>-8.7%</b>        | <b>20.2</b>    | <b>0.6%</b>  |
| <b>Other Renewables</b>                | <b>0.0</b>   | <b>-</b>            | <b>-</b>            | <b>0.0%</b>  | <b>0.1</b>   | <b>0.1</b>   | <b>-</b>            | <b>0.5</b>     | <b>0.0%</b>  |
| <b>Non-Specified</b>                   | <b>0.4</b>   | <b>-4.7%</b>        | <b>1.9%</b>         | <b>0.1%</b>  | <b>1.2</b>   | <b>1.2</b>   | <b>-3.1%</b>        | <b>5.1</b>     | <b>0.1%</b>  |
| <b>RENEWABLES</b>                      | <b>142.0</b> | <b>9.3%</b>         | <b>1.1%</b>         | <b>47.7%</b> | <b>413.5</b> | <b>362.2</b> | <b>14.2%</b>        | <b>1 383.0</b> | <b>39.7%</b> |
| <b>NON-RENEWABLES</b>                  | <b>155.4</b> | <b>-11.2%</b>       | <b>-3.4%</b>        | <b>52.3%</b> | <b>510.4</b> | <b>577.3</b> | <b>-11.6%</b>       | <b>2 103.0</b> | <b>60.3%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>297.3</b> | <b>-2.5%</b>        | <b>-1.3%</b>        |              | <b>923.9</b> | <b>939.5</b> | <b>-1.7%</b>        | <b>3 486.0</b> |              |
| + Imports                              | 37.1         | -3.4%               | -0.3%               |              | 114.2        | 111.6        | 2.3%                | 417.9          |              |
| - Exports                              | 35.7         | 0.0%                | -3.0%               |              | 112.0        | 106.3        | 5.3%                | 401.7          |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>298.7</b> | <b>-2.9%</b>        | <b>-1.0%</b>        |              | <b>926.1</b> | <b>944.8</b> | <b>-2.0%</b>        | <b>3 502.1</b> |              |
| - Used for pumped storage <sup>4</sup> | 4.1          | 13.6%               | 9.7%                |              | 11.5         | 10.2         | 12.5%               | 41.1           |              |
| - T&D Losses <sup>4</sup>              | 21.9         | 2.3%                | -2.3%               |              | 68.9         | 67.7         | 1.7%                | 243.3          |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>272.7</b> | <b>-3.5%</b>        | <b>-1.0%</b>        |              | <b>845.7</b> | <b>866.8</b> | <b>-2.4%</b>        | <b>3 217.7</b> |              |

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

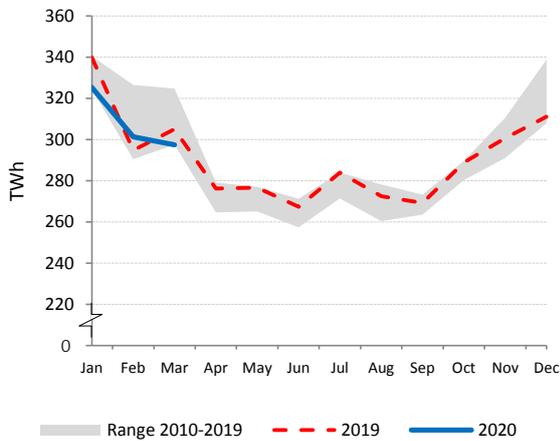
<sup>4</sup> estimated for certain countries

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

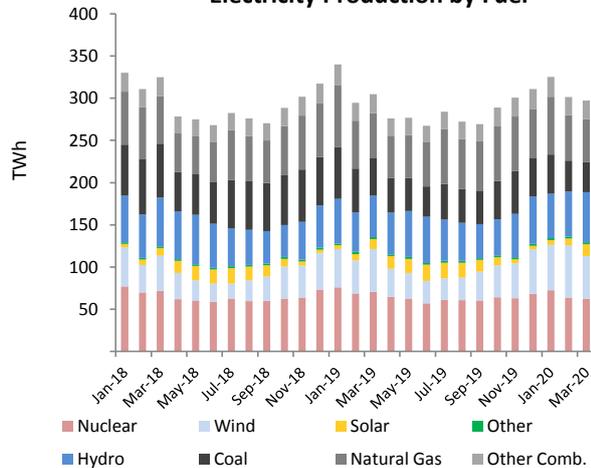
<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Estonia and Italy

<sup>3</sup> year-to-date compared to same period last year

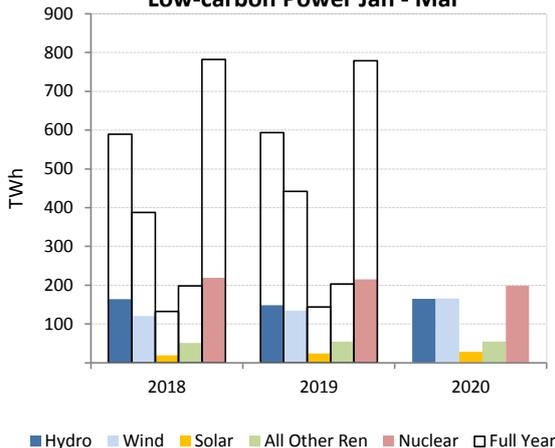
Electricity Production



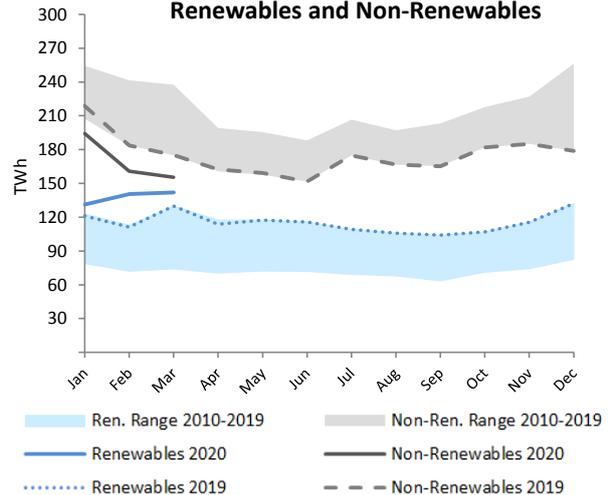
Electricity Production by Fuel



Low-carbon Power Jan - Mar



Renewables and Non-Renewables



# IEA Total

|  | Mar 2020     |                     |                     |              | Year-to-Date   |                |                     | 2019            |              |
|--|--------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|-----------------|--------------|
|  | TWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | TWh             | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>427.5</b> | <b>-8.1%</b>        | <b>-4.0%</b>        | <b>51.0%</b> | <b>1 373.9</b> | <b>1 497.5</b> | <b>-8.3%</b>        | <b>5 887.7</b>  | <b>56.4%</b> |
| Coal <sup>5</sup>                      | 149.2        | -21.8%              | -6.6%               | 17.8%        | 493.1          | 632.7          | -22.0%              | 2 323.1         | 22.3%        |
| Oil <sup>5</sup>                       | 11.9         | -20.0%              | -7.6%               | 1.4%         | 39.5           | 48.0           | -17.7%              | 175.7           | 1.7%         |
| Natural Gas <sup>5</sup>               | 235.9        | 2.8%                | -3.1%               | 28.1%        | 749.7          | 727.1          | 3.1%                | 3 047.6         | 29.2%        |
| Combustible Renewables <sup>5</sup>    | 27.5         | 8.2%                | 5.5%                | 3.3%         | 82.0           | 75.6           | 8.5%                | 301.2           | 2.9%         |
| Other Combustibles <sup>5</sup>        | 3.1          | -35.4%              | 2.3%                | 0.4%         | 9.5            | 14.1           | -32.3%              | 40.2            | 0.4%         |
| <b>Nuclear</b>                         | <b>154.3</b> | <b>-5.6%</b>        | <b>-0.7%</b>        | <b>18.4%</b> | <b>482.4</b>   | <b>498.1</b>   | <b>-3.1%</b>        | <b>1 896.4</b>  | <b>18.2%</b> |
| <b>Hydro</b>                           | <b>129.5</b> | <b>7.5%</b>         | <b>2.9%</b>         | <b>15.4%</b> | <b>382.5</b>   | <b>363.9</b>   | <b>5.1%</b>         | <b>1 403.5</b>  | <b>13.4%</b> |
| <b>Wind</b>                            | <b>87.9</b>  | <b>4.1%</b>         | <b>-11.2%</b>       | <b>10.5%</b> | <b>277.0</b>   | <b>231.6</b>   | <b>19.6%</b>        | <b>825.2</b>    | <b>7.9%</b>  |
| <b>Solar</b>                           | <b>32.0</b>  | <b>15.7%</b>        | <b>35.3%</b>        | <b>3.8%</b>  | <b>74.3</b>    | <b>63.2</b>    | <b>17.5%</b>        | <b>343.1</b>    | <b>3.3%</b>  |
| <b>Geothermal</b>                      | <b>4.0</b>   | <b>2.2%</b>         | <b>13.0%</b>        | <b>0.5%</b>  | <b>11.2</b>    | <b>12.2</b>    | <b>-7.9%</b>        | <b>45.2</b>     | <b>0.4%</b>  |
| <b>Other Renewables</b>                | <b>0.1</b>   | <b>0.0%</b>         | <b>-</b>            | <b>0.0%</b>  | <b>0.2</b>     | <b>0.2</b>     | <b>-0.4%</b>        | <b>1.0</b>      | <b>0.0%</b>  |
| <b>Non-Specified</b>                   | <b>3.1</b>   | <b>2.5%</b>         | <b>-1.6%</b>        | <b>0.4%</b>  | <b>9.4</b>     | <b>9.2</b>     | <b>2.6%</b>         | <b>37.2</b>     | <b>0.4%</b>  |
| <b>RENEWABLES</b>                      | <b>280.9</b> | <b>7.3%</b>         | <b>1.0%</b>         | <b>33.5%</b> | <b>827.2</b>   | <b>746.7</b>   | <b>10.8%</b>        | <b>2 919.2</b>  | <b>28.0%</b> |
| <b>NON-RENEWABLES</b>                  | <b>557.4</b> | <b>-8.1%</b>        | <b>-3.5%</b>        | <b>66.5%</b> | <b>1 783.7</b> | <b>1 929.2</b> | <b>-7.5%</b>        | <b>7 520.1</b>  | <b>72.0%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>838.3</b> | <b>-3.5%</b>        | <b>-2.1%</b>        |              | <b>2 610.9</b> | <b>2 675.8</b> | <b>-2.4%</b>        | <b>10 439.3</b> |              |
| + Imports                              | 40.6         | -4.0%               | 0.7%                |              | 123.9          | 122.1          | 1.5%                | 460.8           |              |
| - Exports                              | 41.0         | 2.2%                | -1.5%               |              | 126.7          | 119.6          | 5.9%                | 458.0           |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>838.0</b> | <b>-3.7%</b>        | <b>-1.9%</b>        |              | <b>2 608.1</b> | <b>2 678.3</b> | <b>-2.6%</b>        | <b>10 442.1</b> |              |
| - Used for pumped storage <sup>4</sup> | 7.1          | 5.0%                | 5.1%                |              | 20.7           | 19.8           | 4.4%                | 83.0            |              |
| - T&D Losses <sup>4</sup>              | 45.6         | -5.1%               | -8.0%               |              | 148.9          | 150.8          | -1.3%               | 604.8           |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>785.3</b> | <b>-3.7%</b>        | <b>-1.6%</b>        |              | <b>2 438.5</b> | <b>2 507.7</b> | <b>-2.8%</b>        | <b>9 754.3</b>  |              |

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

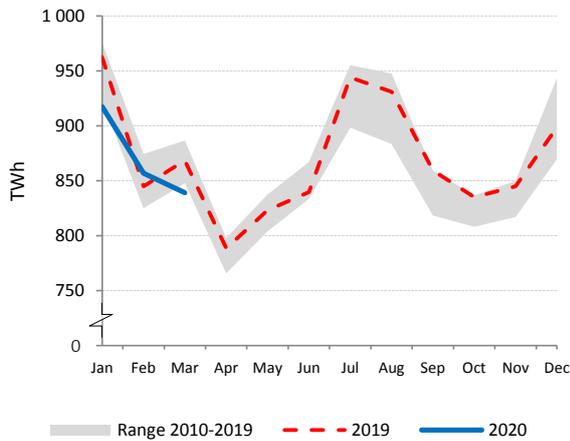
<sup>4</sup> estimated for certain countries

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

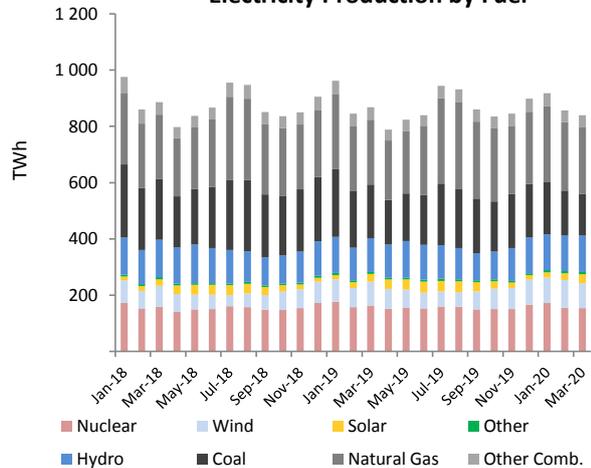
<sup>5</sup> the breakdown of conventional thermal is estimated from annual data for Canada, Estonia, and Italy

<sup>3</sup> year-to-date compared to same period last year

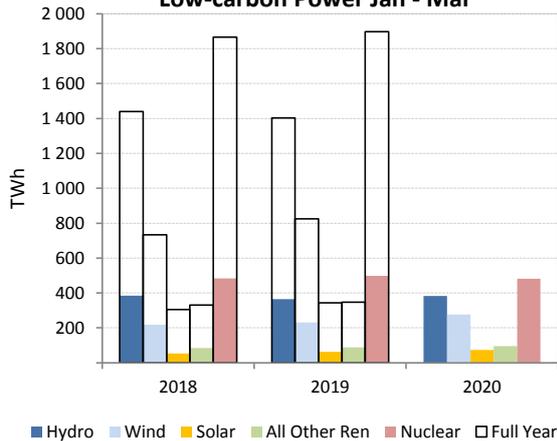
Electricity Production



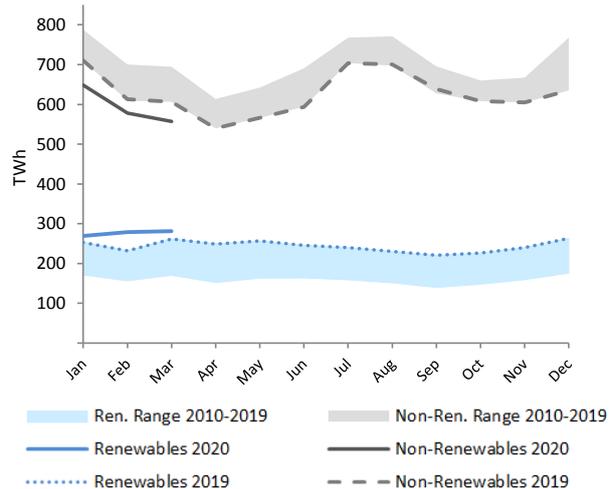
Electricity Production by Fuel



Low-carbon Power Jan - Mar



Renewables and Non-Renewables

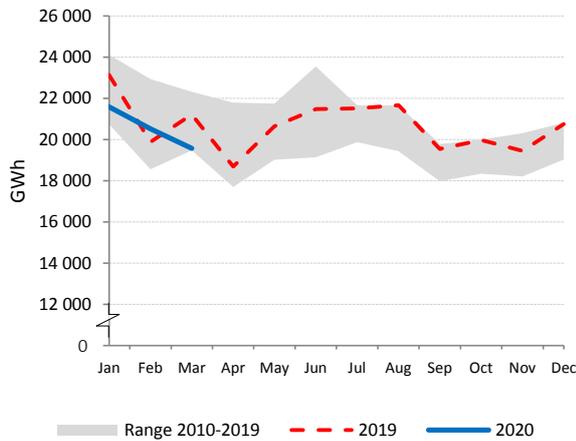


# AUSTRALIA

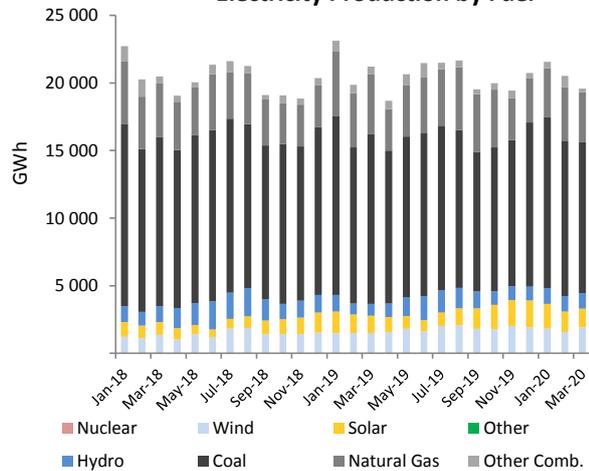
|  | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|--|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|  | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>15 142</b> | <b>-13.8%</b>       | <b>-7.1%</b>        | <b>77.4%</b> | <b>48 212</b> | <b>52 575</b> | <b>-8.3%</b>        | <b>195 697</b> | <b>78.9%</b> |
| Coal                                   | 11 171        | -11.0%              | -3.1%               | 57.1%        | 35 332        | 37 384        | -5.5%               | 140 583        | 56.7%        |
| Oil                                    | 45            | -85.9%              | -92.8%              | 0.2%         | 926           | 1 256         | -26.3%              | 4 547          | 1.8%         |
| Natural Gas                            | 3 716         | -16.5%              | -6.2%               | 19.0%        | 11 331        | 13 232        | -14.4%              | 47 888         | 19.3%        |
| Combustible Renewables                 | 211           | -12.0%              | 4.3%                | 1.1%         | 622           | 704           | -11.7%              | 2 678          | 1.1%         |
| Other Combustibles                     | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Nuclear</b>                         | <b>-</b>      | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>       | <b>-</b>     |
| <b>Hydro</b>                           | <b>1 142</b>  | <b>32.3%</b>        | <b>1.5%</b>         | <b>5.8%</b>  | <b>3 419</b>  | <b>2 895</b>  | <b>18.1%</b>        | <b>14 478</b>  | <b>5.8%</b>  |
| <b>Wind</b>                            | <b>1 940</b>  | <b>29.3%</b>        | <b>22.7%</b>        | <b>9.9%</b>  | <b>5 364</b>  | <b>4 474</b>  | <b>19.9%</b>        | <b>21 128</b>  | <b>8.5%</b>  |
| <b>Solar</b>                           | <b>1 351</b>  | <b>4.9%</b>         | <b>-10.3%</b>       | <b>6.9%</b>  | <b>4 681</b>  | <b>4 284</b>  | <b>9.3%</b>         | <b>16 609</b>  | <b>6.7%</b>  |
| Geothermal                             | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables                       | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                          | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>                      | <b>4 644</b>  | <b>19.3%</b>        | <b>5.2%</b>         | <b>23.7%</b> | <b>14 086</b> | <b>12 357</b> | <b>14.0%</b>        | <b>54 894</b>  | <b>22.1%</b> |
| <b>NON-RENEWABLES</b>                  | <b>14 931</b> | <b>-13.8%</b>       | <b>-7.3%</b>        | <b>76.3%</b> | <b>47 590</b> | <b>51 872</b> | <b>-8.3%</b>        | <b>193 018</b> | <b>77.9%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>19 575</b> | <b>-7.7%</b>        | <b>-4.6%</b>        |              | <b>61 676</b> | <b>64 228</b> | <b>-4.0%</b>        | <b>247 912</b> |              |
| + Imports                              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| - Exports                              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>19 575</b> | <b>-7.7%</b>        | <b>-4.6%</b>        |              | <b>61 676</b> | <b>64 228</b> | <b>-4.0%</b>        | <b>247 912</b> |              |
| - Used for pumped storage <sup>4</sup> | 23            | 32.3%               | 1.5%                |              | 69            | 58            | 18.1%               | 287            |              |
| - T&D Losses <sup>4</sup>              | 906           | -6.1%               | -1.2%               |              | 2 810         | 2 892         | -2.9%               | 12 141         |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>18 646</b> | <b>-7.8%</b>        | <b>-4.8%</b>        |              | <b>58 797</b> | <b>61 278</b> | <b>-4.0%</b>        | <b>235 484</b> |              |

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

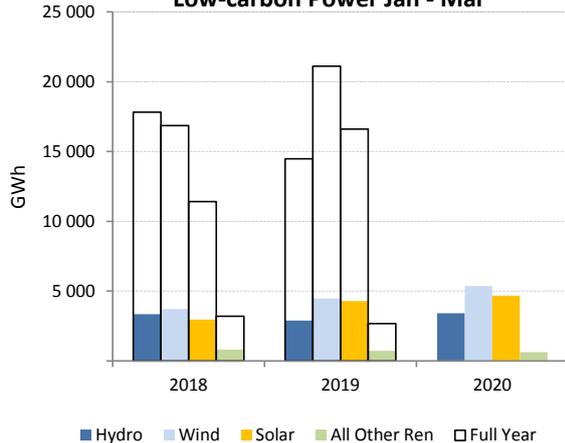
**Electricity Production**



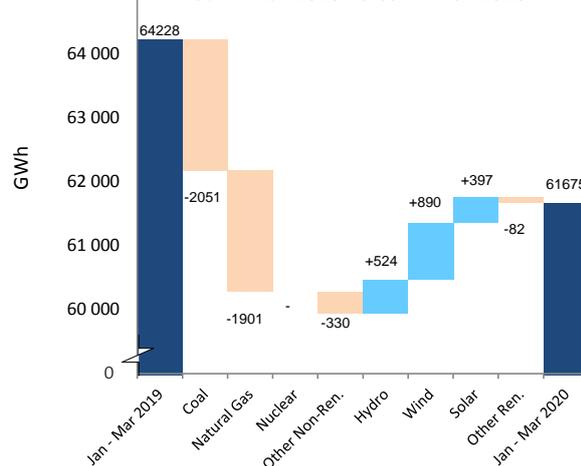
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



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



# AUSTRIA

|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 785</b> | <b>15.2%</b>        | <b>-0.5%</b>        | <b>30.0%</b> | <b>6 217</b>  | <b>6 253</b>  | <b>-0.6%</b>        | <b>19 957</b> | <b>28.1%</b> |
| Coal                          | 289          | -9.7%               | 2.0%                | 4.9%         | 858           | 1 037         | -17.2%              | 3 254         | 4.6%         |
| Oil                           | 60           | 30.3%               | 1.6%                | 1.0%         | 176           | 168           | 4.3%                | 657           | 0.9%         |
| Natural Gas                   | 974          | 34.7%               | -4.1%               | 16.4%        | 3 826         | 3 689         | 3.7%                | 10 768        | 15.2%        |
| Combustible Renewables        | 420          | 3.8%                | 8.9%                | 7.1%         | 1 208         | 1 172         | 3.0%                | 4 546         | 6.4%         |
| Other Combustibles            | 42           | -25.5%              | -17.7%              | 0.7%         | 149           | 187           | -20.2%              | 733           | 1.0%         |
| <b>Nuclear</b>                | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Hydro</b>                  | <b>3 308</b> | <b>-15.4%</b>       | <b>8.2%</b>         | <b>55.6%</b> | <b>8 922</b>  | <b>9 736</b>  | <b>-8.4%</b>        | <b>42 617</b> | <b>60.0%</b> |
| <b>Wind</b>                   | <b>728</b>   | <b>4.5%</b>         | <b>-31.2%</b>       | <b>12.2%</b> | <b>2 193</b>  | <b>2 218</b>  | <b>-1.1%</b>        | <b>7 065</b>  | <b>9.9%</b>  |
| <b>Solar<sup>4</sup></b>      | <b>128</b>   | <b>-</b>            | <b>68.9%</b>        | <b>2.2%</b>  | <b>250</b>    | <b>250</b>    | <b>-</b>            | <b>1 365</b>  | <b>1.9%</b>  |
| Geothermal                    | 0            | -                   | -                   | 0.0%         | 0             | 0             | -                   | 0             | 0.0%         |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified                 | 1            | 0.2%                | 7.5%                | 0.0%         | 3             | 3             | 3.5%                | 12            | 0.0%         |
| <b>RENEWABLES</b>             | <b>4 584</b> | <b>-10.8%</b>       | <b>0.1%</b>         | <b>77.0%</b> | <b>12 573</b> | <b>13 376</b> | <b>-6.0%</b>        | <b>55 593</b> | <b>78.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>1 366</b> | <b>19.2%</b>        | <b>-3.1%</b>        | <b>23.0%</b> | <b>5 012</b>  | <b>5 083</b>  | <b>-1.4%</b>        | <b>15 423</b> | <b>21.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>5 950</b> | <b>-5.3%</b>        | <b>-0.6%</b>        |              | <b>17 584</b> | <b>18 460</b> | <b>-4.7%</b>        | <b>71 016</b> |              |
| + Imports                     | 2 135        | -17.6%              | -18.1%              |              | 7 789         | 8 118         | -4.0%               | 26 047        |              |
| - Exports                     | 1 760        | -19.6%              | -15.2%              |              | 5 792         | 6 472         | -10.5%              | 22 918        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>6 326</b> | <b>-5.4%</b>        | <b>-3.0%</b>        |              | <b>19 582</b> | <b>20 105</b> | <b>-2.6%</b>        | <b>74 145</b> |              |
| - Used for pumped storage     | 431          | 5.6%                | -3.0%               |              | 1 222         | 1 206         | 1.3%                | 4 843         |              |
| - T&D Losses                  | 283          | -4.0%               | -11.6%              |              | 945           | 949           | -0.4%               | 3 424         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>5 613</b> | <b>-6.2%</b>        | <b>-2.5%</b>        |              | <b>17 415</b> | <b>17 950</b> | <b>-3.0%</b>        | <b>65 878</b> |              |

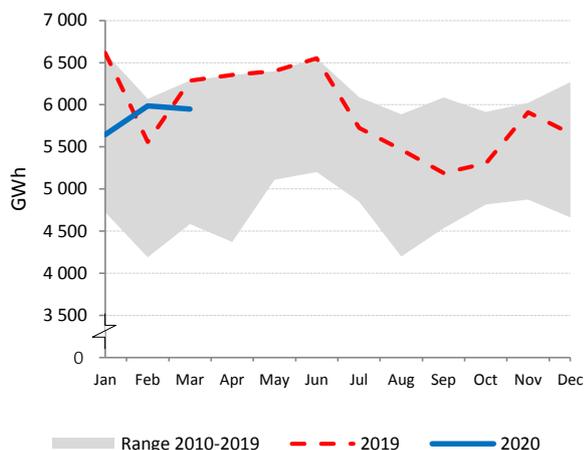
<sup>1</sup> current month to month of last year change

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

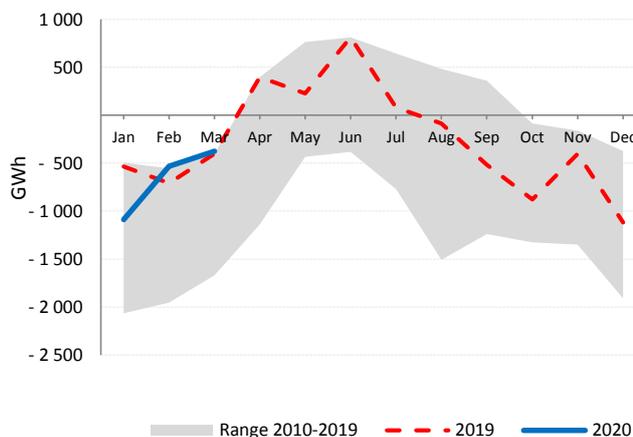
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

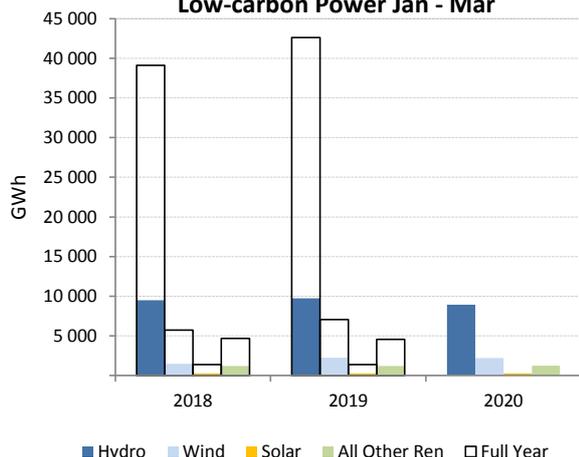
Electricity Production



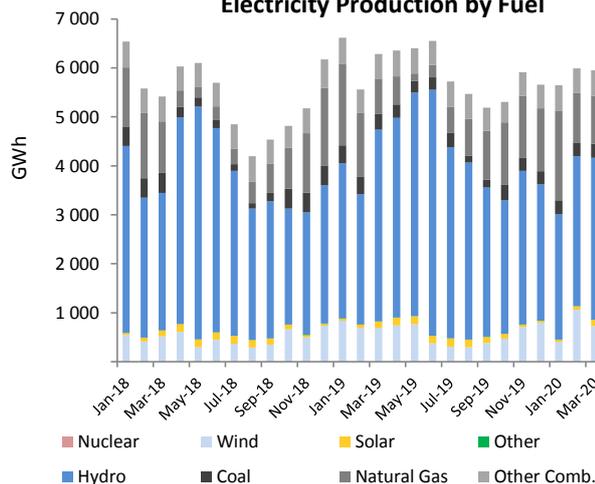
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# BELGIUM

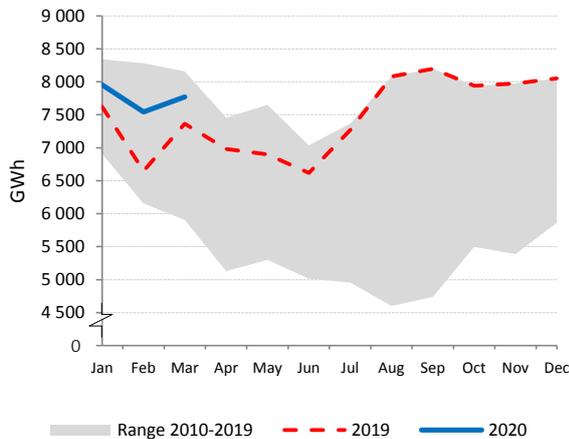
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>2 793</b> | <b>21.6%</b>        | <b>6.4%</b>         | <b>35.9%</b> | <b>8 793</b>  | <b>8 682</b>  | <b>1.3%</b>         | <b>33 351</b> | <b>37.2%</b> |
| Coal                          | 185          | -15.5%              | 1.0%                | 2.4%         | 564           | 614           | -8.1%               | 2 425         | 2.7%         |
| Oil                           | 1            | -33.9%              | -26.7%              | 0.0%         | 4             | 10            | -62.2%              | 27            | 0.0%         |
| Natural Gas                   | 2 006        | 28.7%               | -1.7%               | 25.8%        | 6 631         | 6 399         | 3.6%                | 24 641        | 27.5%        |
| Combustible Renewables        | 481          | 24.2%               | 63.5%               | 6.2%         | 1 267         | 1 301         | -2.6%               | 4 912         | 5.5%         |
| Other Combustibles            | 119          | -7.9%               | 14.5%               | 1.5%         | 327           | 357           | -8.4%               | 1 346         | 1.5%         |
| <b>Nuclear</b>                | <b>3 060</b> | <b>-13.6%</b>       | <b>6.6%</b>         | <b>39.4%</b> | <b>8 999</b>  | <b>9 280</b>  | <b>-3.0%</b>        | <b>41 507</b> | <b>46.3%</b> |
| <b>Hydro</b>                  | <b>127</b>   | <b>9.1%</b>         | <b>-1.9%</b>        | <b>1.6%</b>  | <b>397</b>    | <b>359</b>    | <b>10.6%</b>        | <b>1 148</b>  | <b>1.3%</b>  |
| <b>Wind</b>                   | <b>1 327</b> | <b>21.2%</b>        | <b>-23.6%</b>       | <b>17.1%</b> | <b>4 316</b>  | <b>2 654</b>  | <b>62.6%</b>        | <b>9 320</b>  | <b>10.4%</b> |
| <b>Solar</b>                  | <b>428</b>   | <b>58.1%</b>        | <b>179.7%</b>       | <b>5.5%</b>  | <b>672</b>    | <b>550</b>    | <b>22.2%</b>        | <b>3 919</b>  | <b>4.4%</b>  |
| Geothermal                    | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Non-Specified</b>          | <b>35</b>    | <b>-12.8%</b>       | <b>22.4%</b>        | <b>0.5%</b>  | <b>91</b>     | <b>114</b>    | <b>-19.7%</b>       | <b>405</b>    | <b>0.5%</b>  |
| <b>RENEWABLES</b>             | <b>2 364</b> | <b>26.4%</b>        | <b>2.2%</b>         | <b>30.4%</b> | <b>6 652</b>  | <b>4 865</b>  | <b>36.7%</b>        | <b>19 299</b> | <b>21.5%</b> |
| <b>NON-RENEWABLES</b>         | <b>5 407</b> | <b>-1.6%</b>        | <b>3.4%</b>         | <b>69.6%</b> | <b>16 617</b> | <b>16 774</b> | <b>-0.9%</b>        | <b>70 350</b> | <b>78.5%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>7 771</b> | <b>5.5%</b>         | <b>3.0%</b>         |              | <b>23 268</b> | <b>21 639</b> | <b>7.5%</b>         | <b>89 649</b> |              |
| + Imports                     | 941          | -22.3%              | -3.3%               |              | 3 128         | 4 306         | -27.4%              | 12 734        |              |
| - Exports                     | 1 249        | 36.6%               | 43.0%               |              | 3 073         | 2 635         | 16.6%               | 14 589        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>7 464</b> | <b>-2.6%</b>        | <b>-2.3%</b>        |              | <b>23 323</b> | <b>23 310</b> | <b>0.1%</b>         | <b>87 794</b> |              |
| - Used for pumped storage     | 121          | 12.1%               | 0.6%                |              | 367           | 319           | 15.1%               | 1 162         |              |
| - T&D Losses                  | 316          | -3.3%               | -3.0%               |              | 993           | 995           | -0.2%               | 3 743         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>7 027</b> | <b>-2.8%</b>        | <b>-2.3%</b>        |              | <b>21 963</b> | <b>21 996</b> | <b>-0.1%</b>        | <b>82 889</b> |              |

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

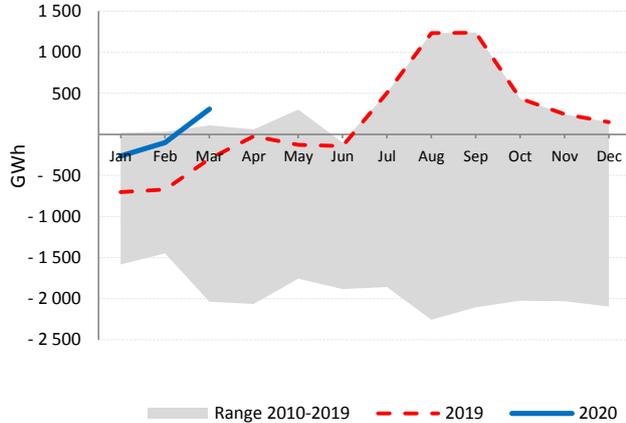
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

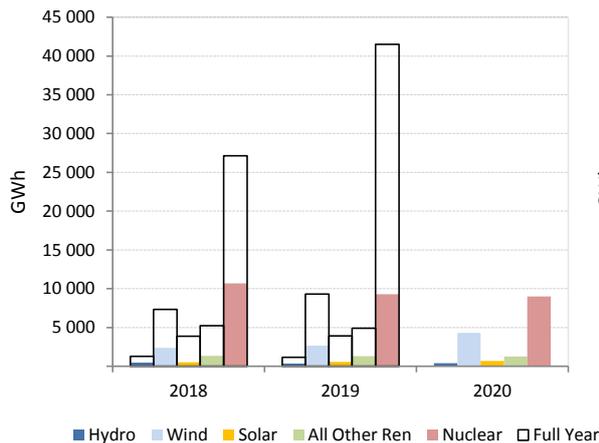
Electricity Production



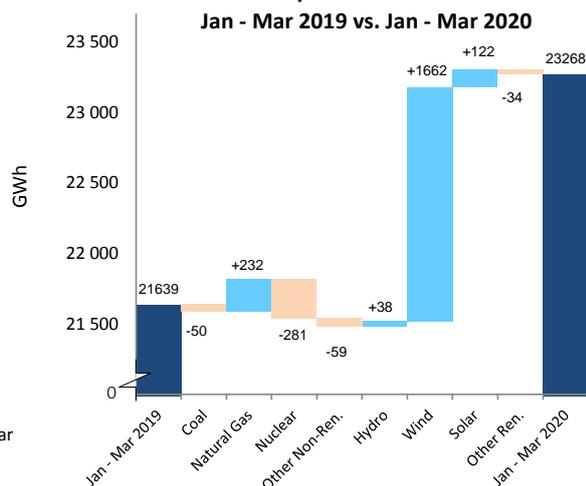
Net Electricity Exports



Low-carbon Power Jan - Mar



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



# CANADA

|  | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|--|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|  | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>10 756</b> | <b>-15.5%</b>       | <b>-2.3%</b>        | <b>18.3%</b> | <b>33 782</b>  | <b>37 711</b>  | <b>-10.4%</b>       | <b>131 545</b> | <b>20.1%</b> |
| Coal <sup>4</sup>                      | 4 165         | -15.5%              | -2.3%               | 7.1%         | 13 080         | 14 601         | -10.4%              | 50 931         | 7.8%         |
| Oil <sup>4</sup>                       | 504           | -15.5%              | -2.3%               | 0.9%         | 1 582          | 1 766          | -10.4%              | 6 159          | 0.9%         |
| Natural Gas <sup>4</sup>               | 5 202         | -15.5%              | -2.3%               | 8.9%         | 16 337         | 18 237         | -10.4%              | 63 615         | 9.7%         |
| Combustible Renewables <sup>4</sup>    | 879           | -15.5%              | -2.3%               | 1.5%         | 2 760          | 3 081          | -10.4%              | 10 746         | 1.6%         |
| Other Combustibles <sup>4</sup>        | 8             | -15.5%              | -2.3%               | 0.0%         | 24             | 27             | -10.4%              | 94             | 0.0%         |
| <b>Nuclear</b>                         | <b>8 414</b>  | <b>12.8%</b>        | <b>6.7%</b>         | <b>14.3%</b> | <b>25 730</b>  | <b>23 685</b>  | <b>8.6%</b>         | <b>101 190</b> | <b>15.5%</b> |
| <b>Hydro</b>                           | <b>35 665</b> | <b>2.2%</b>         | <b>-2.5%</b>        | <b>60.7%</b> | <b>111 480</b> | <b>112 265</b> | <b>-0.7%</b>        | <b>381 909</b> | <b>58.5%</b> |
| <b>Wind</b>                            | <b>3 528</b>  | <b>-3.3%</b>        | <b>-4.4%</b>        | <b>6.0%</b>  | <b>10 204</b>  | <b>10 815</b>  | <b>-5.6%</b>        | <b>34 178</b>  | <b>5.2%</b>  |
| <b>Solar</b>                           | <b>369</b>    | <b>0.3%</b>         | <b>76.5%</b>        | <b>0.6%</b>  | <b>697</b>     | <b>689</b>     | <b>1.1%</b>         | <b>4 207</b>   | <b>0.6%</b>  |
| Geothermal                             | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| Other Renewables                       | -             | -                   | -                   | -            | -              | 1              | -                   | 1              | 0.0%         |
| Non-Specified                          | 14            | -16.1%              | 15.2%               | 0.0%         | 39             | 55             | -30.0%              | 171            | 0.0%         |
| <b>RENEWABLES</b>                      | <b>40 440</b> | <b>1.2%</b>         | <b>-2.3%</b>        | <b>68.8%</b> | <b>125 140</b> | <b>126 850</b> | <b>-1.3%</b>        | <b>431 041</b> | <b>66.0%</b> |
| <b>NON-RENEWABLES</b>                  | <b>18 306</b> | <b>-4.5%</b>        | <b>1.7%</b>         | <b>31.2%</b> | <b>56 792</b>  | <b>58 371</b>  | <b>-2.7%</b>        | <b>222 160</b> | <b>34.0%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>58 746</b> | <b>-0.6%</b>        | <b>-1.1%</b>        |              | <b>181 932</b> | <b>185 221</b> | <b>-1.8%</b>        | <b>653 200</b> |              |
| + Imports                              | 1 100         | -29.9%              | -2.2%               |              | 3 297          | 3 660          | -9.9%               | 13 822         |              |
| - Exports                              | 5 294         | 19.7%               | 8.0%                |              | 15 215         | 13 846         | 9.9%                | 60 037         |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>54 552</b> | <b>-3.0%</b>        | <b>-1.9%</b>        |              | <b>170 014</b> | <b>175 035</b> | <b>-2.9%</b>        | <b>606 985</b> |              |
| - Used for pumped storage <sup>4</sup> | 20            | 2.2%                | -2.5%               |              | 61             | 62             | -0.7%               | 210            |              |
| - T&D Losses <sup>4</sup>              | 3 210         | -1.4%               | -1.1%               |              | 9 935          | 10 130         | -1.9%               | 35 775         |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>51 322</b> | <b>-3.1%</b>        | <b>-1.9%</b>        |              | <b>160 018</b> | <b>164 843</b> | <b>-2.9%</b>        | <b>571 000</b> |              |

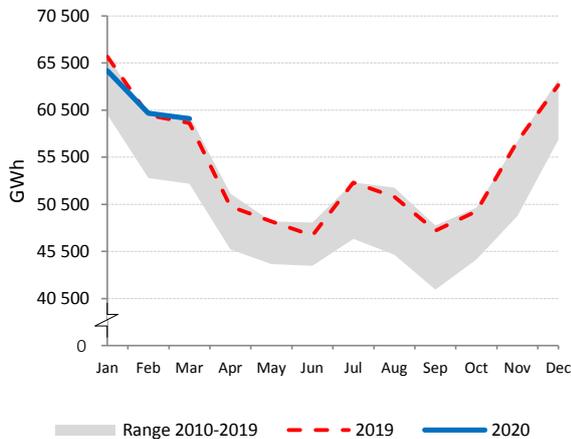
<sup>1</sup> current month to month of last year change

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

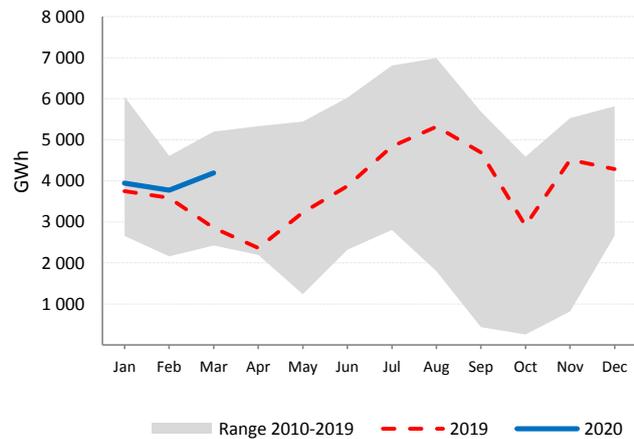
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

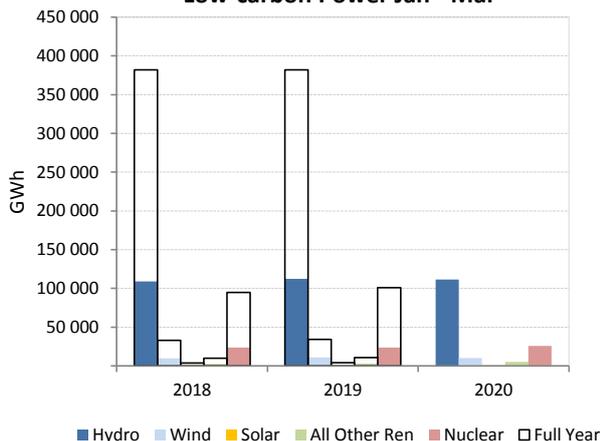
Electricity Production



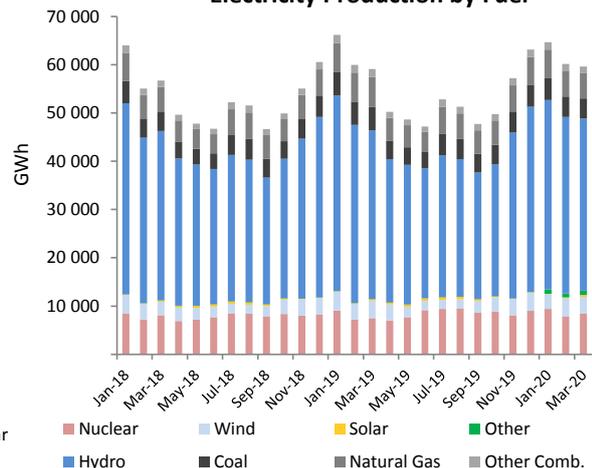
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# CHILE

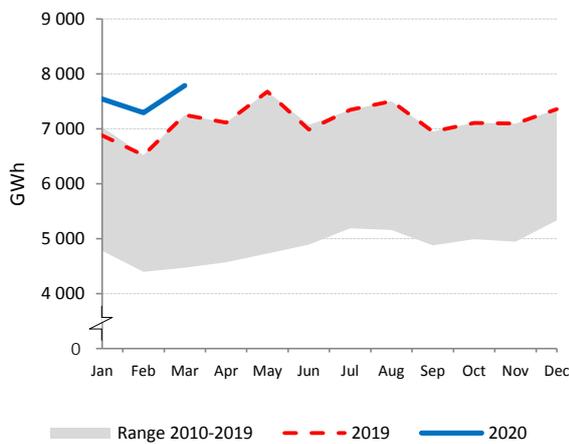
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>5 582</b> | <b>12.5%</b>        | <b>18.4%</b>        | <b>71.7%</b> | <b>14 819</b> | <b>13 140</b> | <b>12.8%</b>        | <b>54 552</b> | <b>63.6%</b> |
| Coal                          | 2 466        | -3.7%               | 11.4%               | 31.7%        | 6 899         | 7 033         | -1.9%               | 28 437        | 33.2%        |
| Oil                           | 1 001        | 242.6%              | 51.5%               | 12.9%        | 2 129         | 661           | 222.1%              | 5 977         | 7.0%         |
| Natural Gas                   | 1 658        | -1.3%               | 16.6%               | 21.3%        | 4 531         | 4 312         | 5.1%                | 15 594        | 18.2%        |
| Combustible Renewables        | 457          | 6.2%                | 8.9%                | 5.9%         | 1 259         | 1 135         | 11.0%               | 4 544         | 5.3%         |
| Other Combustibles            | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Nuclear</b>                | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Hydro</b>                  | <b>1 218</b> | <b>-11.8%</b>       | <b>-20.0%</b>       | <b>15.6%</b> | <b>4 644</b>  | <b>4 885</b>  | <b>-4.9%</b>        | <b>19 680</b> | <b>22.9%</b> |
| <b>Wind</b>                   | <b>359</b>   | <b>3.8%</b>         | <b>-11.9%</b>       | <b>4.6%</b>  | <b>1 189</b>  | <b>948</b>    | <b>25.4%</b>        | <b>5 086</b>  | <b>5.9%</b>  |
| <b>Solar</b>                  | <b>606</b>   | <b>10.7%</b>        | <b>-3.5%</b>        | <b>7.8%</b>  | <b>1 906</b>  | <b>1 627</b>  | <b>17.1%</b>        | <b>6 253</b>  | <b>7.3%</b>  |
| <b>Geothermal</b>             | <b>24</b>    | <b>45.8%</b>        | <b>22.0%</b>        | <b>0.3%</b>  | <b>61</b>     | <b>50</b>     | <b>22.7%</b>        | <b>201</b>    | <b>0.2%</b>  |
| <b>Other Renewables</b>       | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Non-Specified</b>          | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>RENEWABLES</b>             | <b>2 662</b> | <b>-2.1%</b>        | <b>-11.1%</b>       | <b>34.2%</b> | <b>9 059</b>  | <b>8 645</b>  | <b>4.8%</b>         | <b>35 764</b> | <b>41.7%</b> |
| <b>NON-RENEWABLES</b>         | <b>5 125</b> | <b>13.1%</b>        | <b>19.3%</b>        | <b>65.8%</b> | <b>13 559</b> | <b>12 006</b> | <b>12.9%</b>        | <b>50 008</b> | <b>58.3%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>7 787</b> | <b>7.4%</b>         | <b>6.8%</b>         |              | <b>22 619</b> | <b>20 651</b> | <b>9.5%</b>         | <b>85 772</b> |              |
| + Imports                     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - Exports                     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>7 787</b> | <b>7.4%</b>         | <b>6.8%</b>         |              | <b>22 619</b> | <b>20 651</b> | <b>9.5%</b>         | <b>85 772</b> |              |
| - Used for pumped storage     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - T&D Losses                  | 256          | -17.6%              | 2.9%                |              | 771           | 891           | -13.5%              | 3 216         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>7 531</b> | <b>8.5%</b>         | <b>6.9%</b>         |              | <b>21 848</b> | <b>19 760</b> | <b>10.6%</b>        | <b>82 555</b> |              |

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

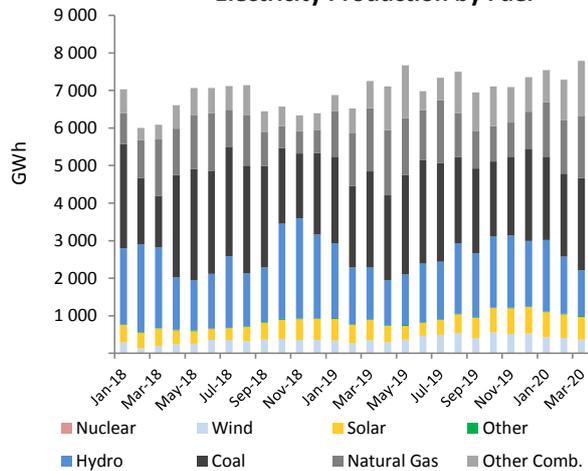
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

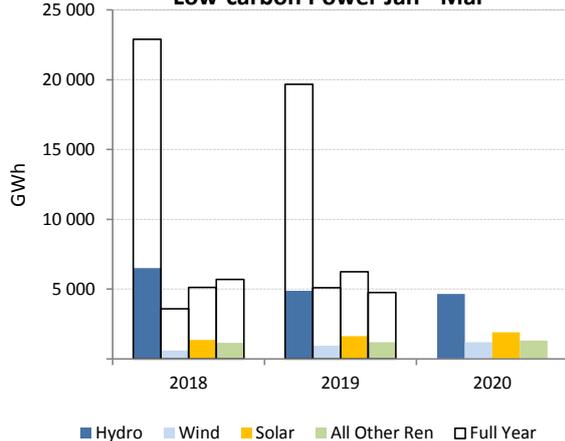
Electricity Production



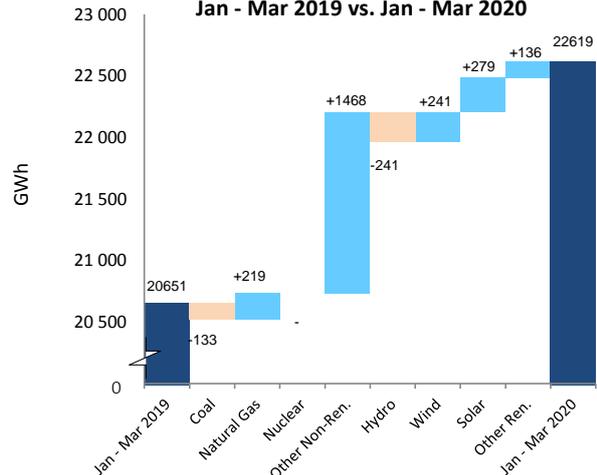
Electricity Production by Fuel



Low-carbon Power Jan - Mar



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



# CZECH REPUBLIC

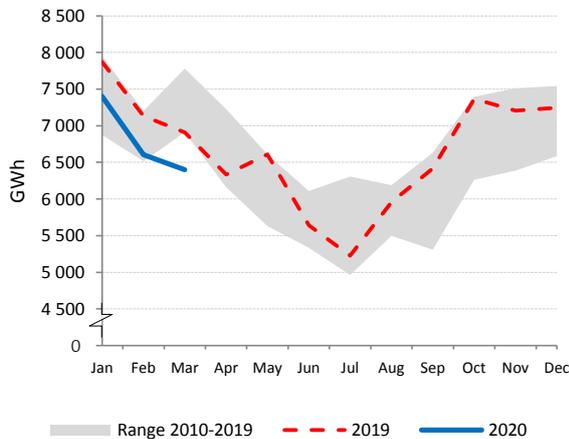
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>3 643</b> | <b>-9.3%</b>        | <b>-4.3%</b>        | <b>56.9%</b> | <b>12 059</b> | <b>12 991</b> | <b>-7.2%</b>        | <b>45 121</b> | <b>56.5%</b> |
| Coal                          | 2 785        | -16.4%              | -4.3%               | 43.5%        | 9 283         | 10 617        | -12.6%              | 35 245        | 44.1%        |
| Oil                           | 7            | -22.4%              | -17.5%              | 0.1%         | 23            | 24            | -2.0%               | 106           | 0.1%         |
| Natural Gas                   | 442          | 60.5%               | -13.9%              | 6.9%         | 1 557         | 1 222         | 27.4%               | 5 191         | 6.5%         |
| Combustible Renewables        | 402          | 1.8%                | 9.5%                | 6.3%         | 1 172         | 1 108         | 5.7%                | 4 502         | 5.6%         |
| Other Combustibles            | 8            | 8.4%                | -9.7%               | 0.1%         | 24            | 21            | 15.9%               | 77            | 0.1%         |
| <b>Nuclear</b>                | <b>2 136</b> | <b>-1.5%</b>        | <b>-6.8%</b>        | <b>33.4%</b> | <b>6 846</b>  | <b>7 221</b>  | <b>-5.2%</b>        | <b>28 579</b> | <b>35.8%</b> |
| <b>Hydro</b>                  | <b>305</b>   | <b>-30.8%</b>       | <b>7.9%</b>         | <b>4.8%</b>  | <b>817</b>    | <b>1 065</b>  | <b>-23.3%</b>       | <b>3 145</b>  | <b>3.9%</b>  |
| <b>Wind</b>                   | <b>79</b>    | <b>-6.0%</b>        | <b>-30.5%</b>       | <b>1.2%</b>  | <b>265</b>    | <b>227</b>    | <b>16.9%</b>        | <b>691</b>    | <b>0.9%</b>  |
| <b>Solar</b>                  | <b>225</b>   | <b>17.6%</b>        | <b>122.3%</b>       | <b>3.5%</b>  | <b>388</b>    | <b>380</b>    | <b>2.0%</b>         | <b>2 263</b>  | <b>2.8%</b>  |
| Geothermal                    | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Non-Specified</b>          | <b>11</b>    | <b>10.5%</b>        | <b>2.5%</b>         | <b>0.2%</b>  | <b>32</b>     | <b>31</b>     | <b>3.0%</b>         | <b>124</b>    | <b>0.2%</b>  |
| <b>RENEWABLES</b>             | <b>1 011</b> | <b>-9.0%</b>        | <b>17.0%</b>        | <b>15.8%</b> | <b>2 641</b>  | <b>2 780</b>  | <b>-5.0%</b>        | <b>10 600</b> | <b>13.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>5 387</b> | <b>-7.1%</b>        | <b>-6.2%</b>        | <b>84.2%</b> | <b>17 765</b> | <b>19 136</b> | <b>-7.2%</b>        | <b>69 323</b> | <b>86.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>6 398</b> | <b>-7.4%</b>        | <b>-3.1%</b>        |              | <b>20 406</b> | <b>21 916</b> | <b>-6.9%</b>        | <b>79 923</b> |              |
| + Imports                     | 1 219        | 17.3%               | -7.7%               |              | 4 232         | 3 183         | 33.0%               | 11 026        |              |
| - Exports                     | 1 714        | -13.0%              | -14.0%              |              | 6 267         | 6 586         | -4.8%               | 24 123        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>5 903</b> | <b>-1.3%</b>        | <b>-0.5%</b>        |              | <b>18 372</b> | <b>18 512</b> | <b>-0.8%</b>        | <b>66 826</b> |              |
| - Used for pumped storage     | 144          | 19.3%               | -1.0%               |              | 436           | 365           | 19.3%               | 1 508         |              |
| - T&D Losses                  | 365          | 0.6%                | -7.4%               |              | 1 228         | 1 206         | 1.8%                | 4 300         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>5 394</b> | <b>-1.8%</b>        | <b>0.0%</b>         |              | <b>16 707</b> | <b>16 940</b> | <b>-1.4%</b>        | <b>61 019</b> |              |

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

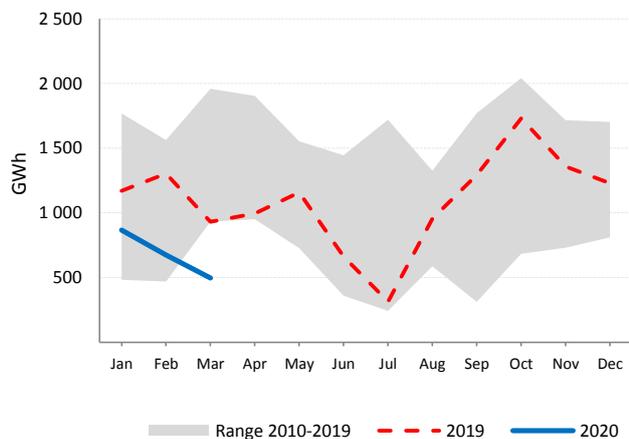
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

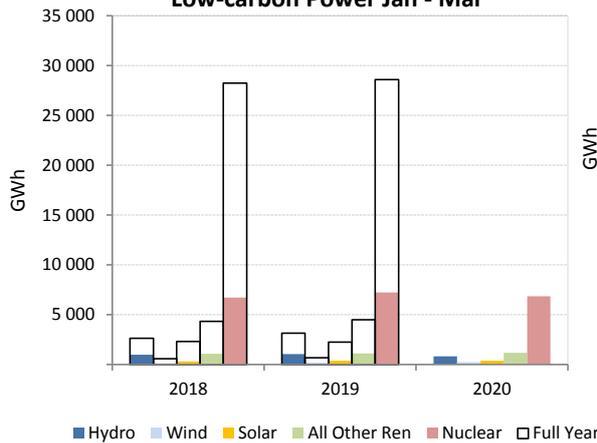
Electricity Production



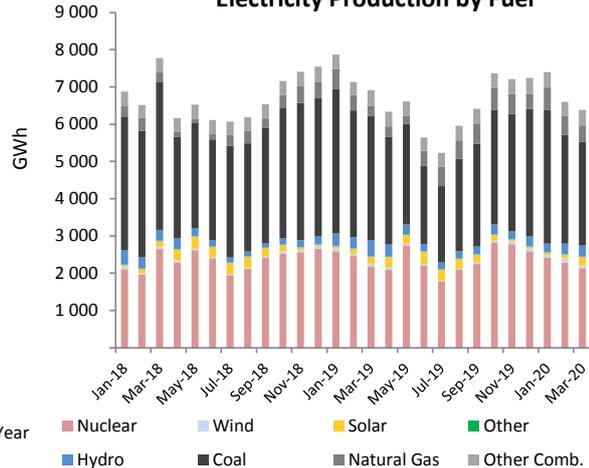
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# DENMARK

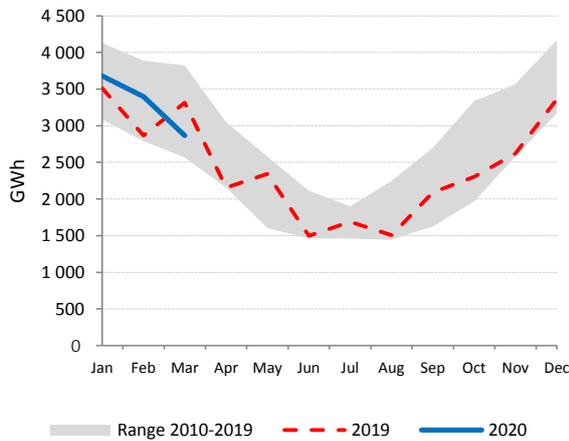
|                               | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 209</b> | <b>-11.5%</b>       | <b>-6.7%</b>        | <b>42.2%</b> | <b>4 002</b> | <b>4 784</b> | <b>-16.3%</b>       | <b>12 132</b> | <b>41.5%</b> |
| Coal                          | 424          | -8.5%               | -14.0%              | 14.8%        | 1 430        | 1 752        | -18.4%              | 3 382         | 11.6%        |
| Oil                           | 14           | -30.6%              | -17.7%              | 0.5%         | 56           | 67           | -17.2%              | 239           | 0.8%         |
| Natural Gas                   | 115          | -40.4%              | 0.0%                | 4.0%         | 376          | 735          | -48.8%              | 1 826         | 6.2%         |
| Combustible Renewables        | 585          | -6.0%               | -4.0%               | 20.4%        | 1 929        | 2 012        | -4.1%               | 5 863         | 20.0%        |
| Other Combustibles            | 72           | 5.9%                | 16.0%               | 2.5%         | 212          | 217          | -2.6%               | 823           | 2.8%         |
| Nuclear                       | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Hydro                         | 3            | 19.2%               | -2.2%               | 0.1%         | 7            | 5            | 38.1%               | 17            | 0.1%         |
| Wind                          | 1 552        | -17.2%              | -25.0%              | 54.1%        | 5 789        | 4 780        | 21.1%               | 16 150        | 55.2%        |
| Solar                         | 104          | 42.2%               | 246.2%              | 3.6%         | 148          | 128          | 15.7%               | 963           | 3.3%         |
| Geothermal                    | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>2 243</b> | <b>-12.8%</b>       | <b>-17.2%</b>       | <b>78.2%</b> | <b>7 873</b> | <b>6 925</b> | <b>13.7%</b>        | <b>22 993</b> | <b>78.6%</b> |
| <b>NON-RENEWABLES</b>         | <b>624</b>   | <b>-16.1%</b>       | <b>-9.0%</b>        | <b>21.8%</b> | <b>2 073</b> | <b>2 771</b> | <b>-25.2%</b>       | <b>6 269</b>  | <b>21.4%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>2 868</b> | <b>-13.5%</b>       | <b>-15.6%</b>       |              | <b>9 946</b> | <b>9 696</b> | <b>2.6%</b>         | <b>29 262</b> |              |
| + Imports                     | 1 505        | 35.9%               | 12.8%               |              | 4 068        | 3 134        | 29.8%               | 15 327        |              |
| - Exports                     | 1 220        | -6.7%               | -17.8%              |              | 4 218        | 3 448        | 22.4%               | 9 535         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>3 153</b> | <b>1.2%</b>         | <b>-2.9%</b>        |              | <b>9 796</b> | <b>9 383</b> | <b>4.4%</b>         | <b>35 054</b> |              |
| - Used for pumped storage     | -            | -                   | -                   |              | -            | -            | -                   | -             |              |
| - T&D Losses                  | 260          | 0.5%                | -8.9%               |              | 839          | 710          | 18.2%               | 2 619         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>2 893</b> | <b>1.2%</b>         | <b>-2.3%</b>        |              | <b>8 957</b> | <b>8 673</b> | <b>3.3%</b>         | <b>32 435</b> |              |

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

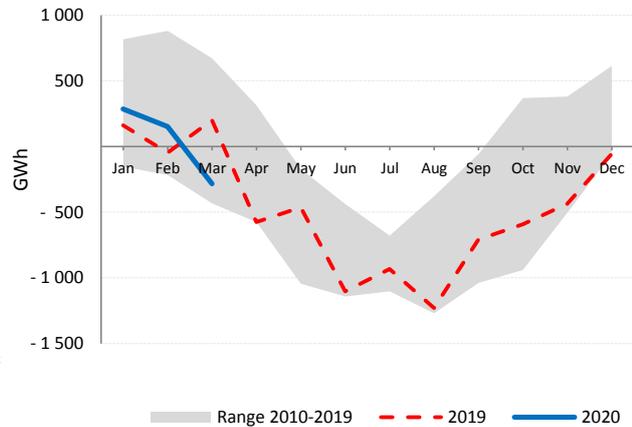
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

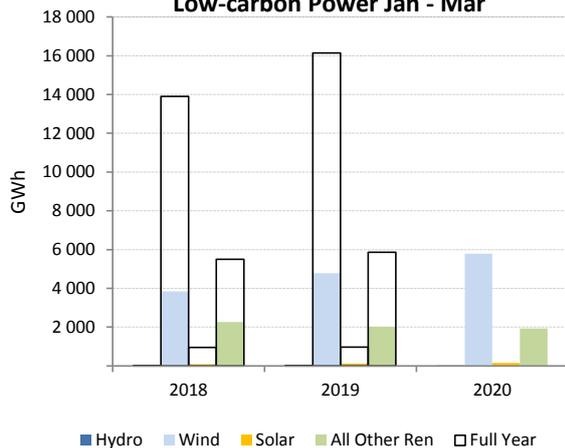
Electricity Production



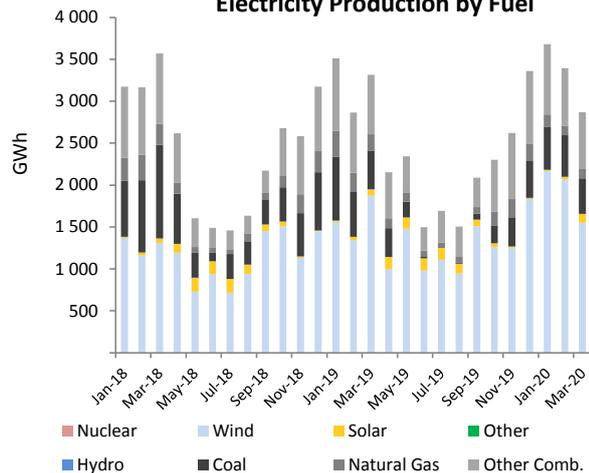
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# ESTONIA

|                                     | Mar 2020   |                     |                     |              | Year-to-Date |              |                     | 2019         |              |
|-------------------------------------|------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|--------------|--------------|
|                                     | GWh        | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh          | share        |
| <b>CONVENTIONAL THERMAL</b>         | <b>321</b> | <b>-48.7%</b>       | <b>16.2%</b>        | <b>78.4%</b> | <b>938</b>   | <b>2 268</b> | <b>-58.7%</b>       | <b>6 033</b> | <b>89.3%</b> |
| Coal <sup>4</sup>                   | 278        | -48.7%              | 16.2%               | 68.0%        | 814          | 1 968        | -58.7%              | 5 235        | 77.5%        |
| Oil <sup>4</sup>                    | 2          | -48.7%              | 16.2%               | 0.6%         | 7            | 16           | -58.7%              | 43           | 0.6%         |
| Natural Gas <sup>4</sup>            | 2          | -48.7%              | 16.2%               | 0.4%         | 5            | 11           | -58.7%              | 30           | 0.4%         |
| Combustible Renewables <sup>4</sup> | 36         | -48.7%              | 16.2%               | 8.8%         | 105          | 254          | -58.7%              | 675          | 10.0%        |
| Other Combustibles <sup>4</sup>     | 3          | -48.7%              | 16.2%               | 0.7%         | 8            | 19           | -58.7%              | 50           | 0.7%         |
| Nuclear                             | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Hydro                               | 3          | 42.9%               | -20.0%              | 0.8%         | 11           | 4            | 145.3%              | 15           | 0.2%         |
| Wind                                | 83         | 3.3%                | -19.2%              | 20.2%        | 292          | 229          | 27.6%               | 677          | 10.0%        |
| Solar                               | 3          | -                   | -                   | 0.6%         | 8            | 8            | -                   | 31           | 0.5%         |
| Geothermal                          | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Other Renewables                    | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Non-Specified                       | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| <b>RENEWABLES</b>                   | <b>124</b> | <b>-19.7%</b>       | <b>-11.1%</b>       | <b>30.4%</b> | <b>415</b>   | <b>495</b>   | <b>-16.1%</b>       | <b>1 399</b> | <b>20.7%</b> |
| <b>NON-RENEWABLES</b>               | <b>285</b> | <b>-48.7%</b>       | <b>16.2%</b>        | <b>69.6%</b> | <b>833</b>   | <b>2 014</b> | <b>-58.7%</b>       | <b>5 358</b> | <b>79.3%</b> |
| <b>TOTAL NET PRODUCTION</b>         | <b>409</b> | <b>-42.4%</b>       | <b>6.3%</b>         |              | <b>1 248</b> | <b>2 509</b> | <b>-50.3%</b>       | <b>6 757</b> |              |
| + Imports                           | 621        | 134.2%              | -1.4%               |              | 1 914        | 810          | 136.2%              | 4 862        |              |
| - Exports                           | 221        | 59.2%               | 3.8%                |              | 695          | 760          | -8.5%               | 2 703        |              |
| <b>= ELECTRICITY SUPPLIED</b>       | <b>809</b> | <b>-3.3%</b>        | <b>0.9%</b>         |              | <b>2 467</b> | <b>2 559</b> | <b>-3.6%</b>        | <b>8 916</b> |              |
| - Used for pumped storage           | -          | -                   | -                   |              | -            | -            | -                   | -            |              |
| - T&D Losses <sup>4</sup>           | 55         | 5.6%                | 1.5%                |              | 168          | 177          | -4.7%               | 618          |              |
| <b>= ELECTRICITY CONSUMED</b>       | <b>755</b> | <b>-3.9%</b>        | <b>0.9%</b>         |              | <b>2 298</b> | <b>2 383</b> | <b>-3.5%</b>        | <b>8 297</b> |              |

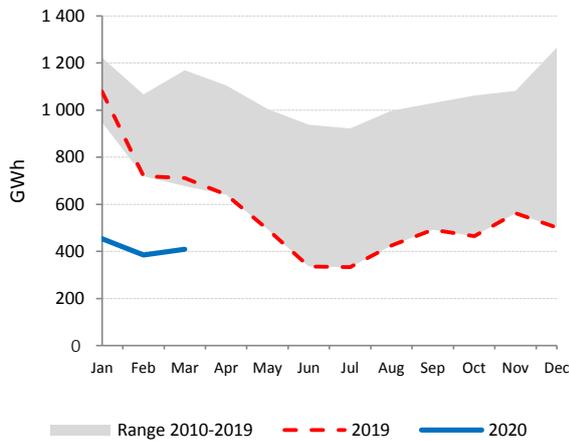
<sup>1</sup> current month to month of last year change

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

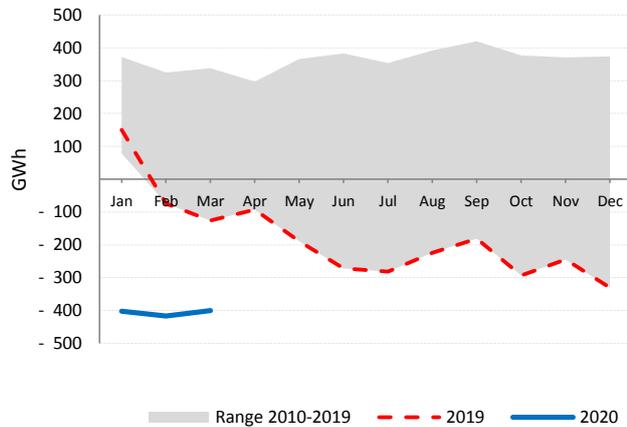
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

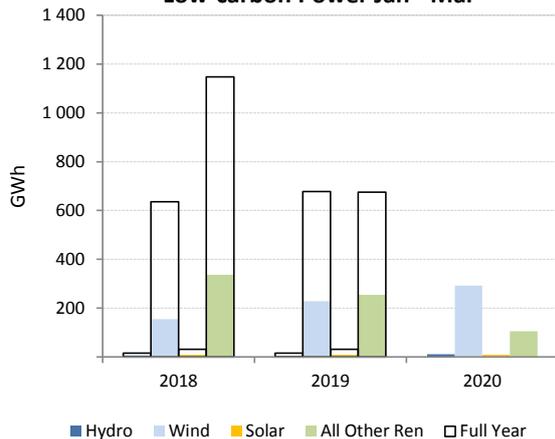
Electricity Production



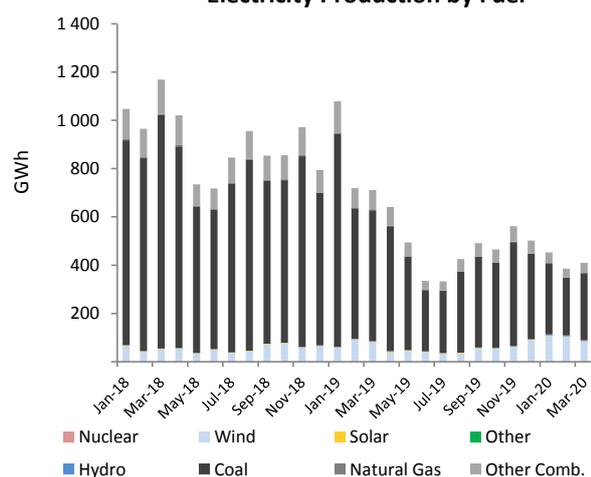
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# FINLAND

|                                 | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|---------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                                 | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>     | <b>2 099</b> | <b>-22.9%</b>       | <b>8.4%</b>         | <b>32.0%</b> | <b>6 266</b>  | <b>8 970</b>  | <b>-30.1%</b>       | <b>24 604</b> | <b>37.2%</b> |
| Coal                            | 703          | -28.6%              | -8.2%               | 10.7%        | 2 223         | 3 269         | -32.0%              | 8 269         | 12.5%        |
| Oil                             | 21           | -19.1%              | 13.3%               | 0.3%         | 61            | 85            | -27.9%              | 275           | 0.4%         |
| Natural Gas                     | 344          | -27.2%              | -2.5%               | 5.2%         | 1 136         | 1 825         | -37.8%              | 3 863         | 5.8%         |
| Combustible Renewables          | 995          | -17.1%              | 29.5%               | 15.2%        | 2 745         | 3 668         | -25.2%              | 11 773        | 17.8%        |
| Other Combustibles <sup>4</sup> | 36           | -11.5%              | 15.0%               | 0.5%         | 101           | 123           | -18.2%              | 425           | 0.6%         |
| <b>Nuclear</b>                  | <b>2 030</b> | <b>-2.0%</b>        | <b>4.3%</b>         | <b>30.9%</b> | <b>6 060</b>  | <b>6 020</b>  | <b>0.7%</b>         | <b>22 916</b> | <b>34.6%</b> |
| <b>Hydro</b>                    | <b>1 553</b> | <b>59.6%</b>        | <b>10.5%</b>        | <b>23.6%</b> | <b>4 247</b>  | <b>2 756</b>  | <b>54.1%</b>        | <b>12 268</b> | <b>18.5%</b> |
| <b>Wind</b>                     | <b>850</b>   | <b>20.8%</b>        | <b>9.4%</b>         | <b>12.9%</b> | <b>2 604</b>  | <b>1 819</b>  | <b>43.2%</b>        | <b>5 963</b>  | <b>9.0%</b>  |
| <b>Solar</b>                    | <b>17</b>    | <b>104.4%</b>       | <b>173.8%</b>       | <b>0.3%</b>  | <b>24</b>     | <b>11</b>     | <b>116.6%</b>       | <b>181</b>    | <b>0.3%</b>  |
| Geothermal                      | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables                | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Non-Specified</b>            | <b>20</b>    | <b>-</b>            | <b>-</b>            | <b>0.3%</b>  | <b>60</b>     | <b>60</b>     | <b>-</b>            | <b>240</b>    | <b>0.4%</b>  |
| <b>RENEWABLES</b>               | <b>3 415</b> | <b>18.4%</b>        | <b>15.4%</b>        | <b>52.0%</b> | <b>9 620</b>  | <b>8 255</b>  | <b>16.5%</b>        | <b>30 185</b> | <b>45.6%</b> |
| <b>NON-RENEWABLES</b>           | <b>3 154</b> | <b>-12.7%</b>       | <b>0.6%</b>         | <b>48.0%</b> | <b>9 641</b>  | <b>11 381</b> | <b>-15.3%</b>       | <b>35 987</b> | <b>54.4%</b> |
| <b>TOTAL NET PRODUCTION</b>     | <b>6 569</b> | <b>1.1%</b>         | <b>7.8%</b>         |              | <b>19 261</b> | <b>19 636</b> | <b>-1.9%</b>        | <b>66 172</b> |              |
| + Imports                       | 1 853        | -5.1%               | 7.7%                |              | 5 506         | 6 266         | -12.1%              | 23 938        |              |
| - Exports                       | 543          | 188.7%              | 1.0%                |              | 1 679         | 585           | 186.9%              | 3 898         |              |
| <b>= ELECTRICITY SUPPLIED</b>   | <b>7 879</b> | <b>-4.7%</b>        | <b>8.3%</b>         |              | <b>23 088</b> | <b>25 317</b> | <b>-8.8%</b>        | <b>86 212</b> |              |
| - Used for pumped storage       | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - T&D Losses                    | 273          | -4.7%               | 8.3%                |              | 799           | 875           | -8.7%               | 2 981         |              |
| <b>= ELECTRICITY CONSUMED</b>   | <b>7 607</b> | <b>-4.7%</b>        | <b>8.3%</b>         |              | <b>22 289</b> | <b>24 442</b> | <b>-8.8%</b>        | <b>83 230</b> |              |

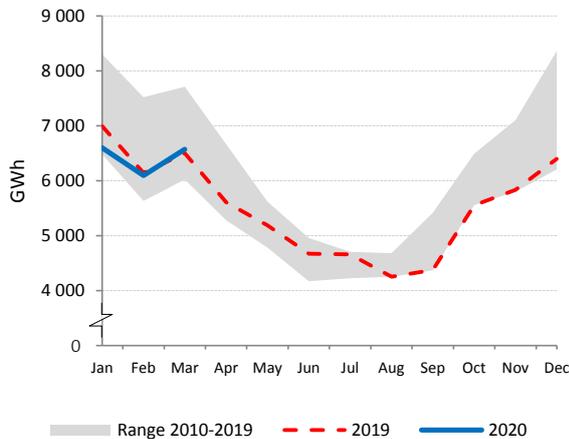
<sup>1</sup> current month to month of last year change

<sup>4</sup> includes generation from peat

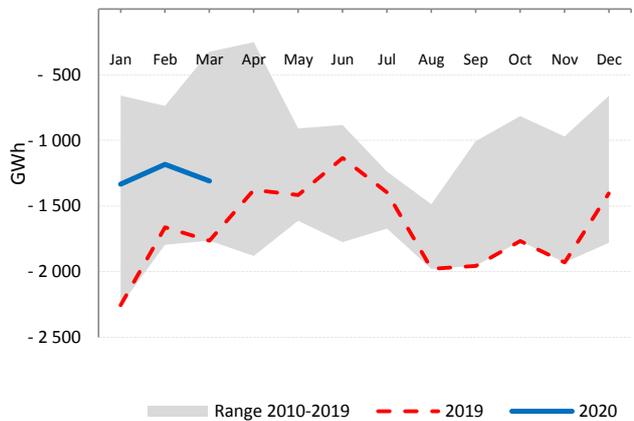
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

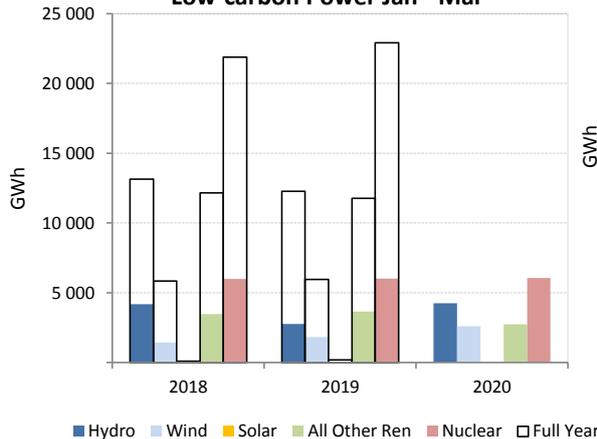
Electricity Production



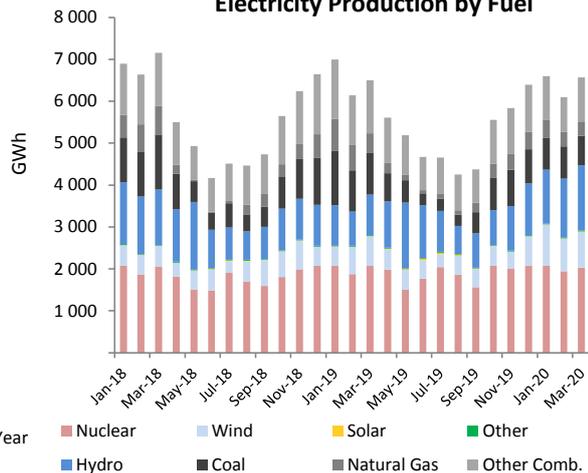
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



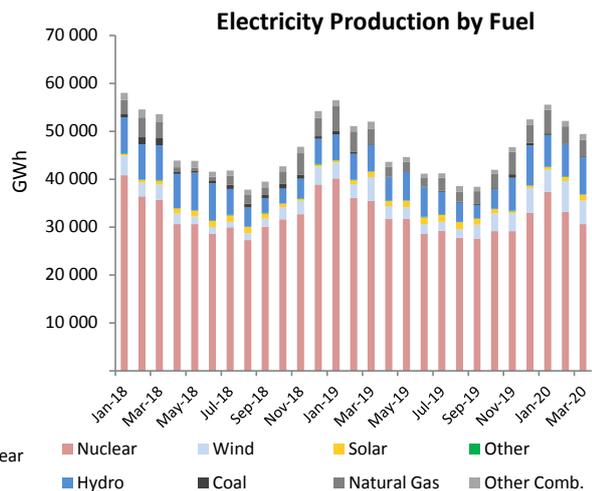
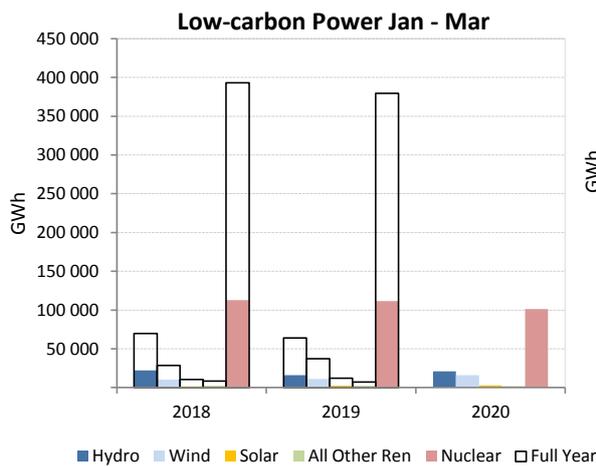
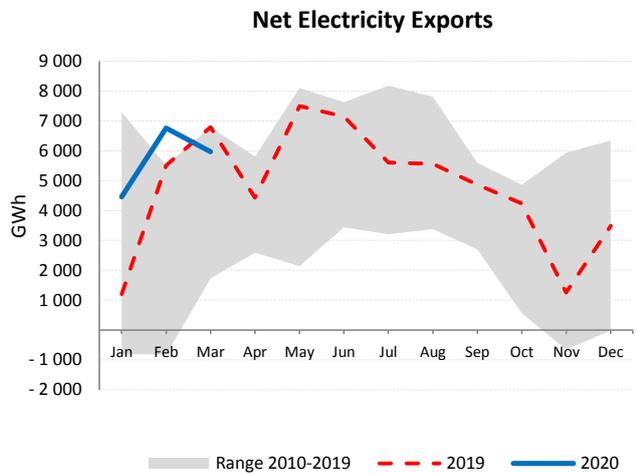
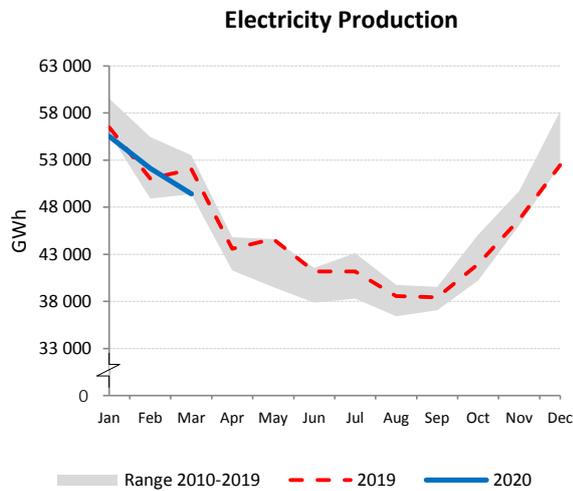
# FRANCE

|                               | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>4 846</b>  | <b>-0.9%</b>        | <b>-2.0%</b>        | <b>9.8%</b>  | <b>16 091</b>  | <b>17 867</b>  | <b>-9.9%</b>        | <b>54 154</b>  | <b>9.9%</b>  |
| Coal                          | 164           | 7.7%                | -36.0%              | 0.3%         | 768            | 1 364          | -43.7%              | 3 822          | 0.7%         |
| Oil                           | 538           | 7.2%                | 0.7%                | 1.1%         | 1 597          | 1 534          | 4.1%                | 6 073          | 1.1%         |
| Natural Gas                   | 3 469         | 6.5%                | -3.3%               | 7.0%         | 11 990         | 12 786         | -6.2%               | 37 613         | 6.9%         |
| Combustible Renewables        | 675           | -31.0%              | 19.1%               | 1.4%         | 1 735          | 2 184          | -20.5%              | 6 646          | 1.2%         |
| Other Combustibles            | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| <b>Nuclear</b>                | <b>30 623</b> | <b>-13.7%</b>       | <b>-7.7%</b>        | <b>62.0%</b> | <b>101 151</b> | <b>111 740</b> | <b>-9.5%</b>        | <b>379 445</b> | <b>69.2%</b> |
| <b>Hydro</b>                  | <b>7 706</b>  | <b>40.2%</b>        | <b>16.8%</b>        | <b>15.6%</b> | <b>20 932</b>  | <b>16 181</b>  | <b>29.4%</b>        | <b>63 775</b>  | <b>11.6%</b> |
| <b>Wind</b>                   | <b>4 913</b>  | <b>-0.2%</b>        | <b>-23.9%</b>       | <b>9.9%</b>  | <b>15 929</b>  | <b>11 028</b>  | <b>44.4%</b>        | <b>37 404</b>  | <b>6.8%</b>  |
| <b>Solar</b>                  | <b>1 200</b>  | <b>8.2%</b>         | <b>41.9%</b>        | <b>2.4%</b>  | <b>2 620</b>   | <b>2 383</b>   | <b>9.9%</b>         | <b>12 094</b>  | <b>2.2%</b>  |
| Geothermal <sup>4</sup>       | 13            | -2.7%               | -                   | 0.0%         | 38             | 39             | -2.7%               | 156            | 0.0%         |
| Other Renewables              | 40            | -                   | -                   | 0.1%         | 119            | 119            | -                   | 474            | 0.1%         |
| Non-Specified                 | 55            | -                   | -                   | 0.1%         | 164            | 164            | -                   | 657            | 0.1%         |
| <b>RENEWABLES</b>             | <b>14 546</b> | <b>15.8%</b>        | <b>0.2%</b>         | <b>29.4%</b> | <b>41 373</b>  | <b>31 934</b>  | <b>29.6%</b>        | <b>120 549</b> | <b>22.0%</b> |
| <b>NON-RENEWABLES</b>         | <b>34 849</b> | <b>-11.7%</b>       | <b>-7.3%</b>        | <b>70.6%</b> | <b>115 671</b> | <b>127 588</b> | <b>-9.3%</b>        | <b>427 610</b> | <b>78.0%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>49 395</b> | <b>-5.0%</b>        | <b>-5.2%</b>        |              | <b>157 044</b> | <b>159 522</b> | <b>-1.6%</b>        | <b>548 159</b> |              |
| + Imports                     | 1 035         | 50.7%               | 106.4%              |              | 3 140          | 4 605          | -31.8%              | 15 709         |              |
| - Exports                     | 7 011         | -6.3%               | -3.5%               |              | 20 345         | 18 110         | 12.3%               | 73 315         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>43 419</b> | <b>-4.0%</b>        | <b>-4.3%</b>        |              | <b>139 839</b> | <b>146 017</b> | <b>-4.2%</b>        | <b>490 553</b> |              |
| - Used for pumped storage     | 574           | 0.5%                | -11.4%              |              | 1 754          | 1 530          | 14.6%               | 6 327          |              |
| - T&D Losses                  | 3 641         | 2.7%                | -6.1%               |              | 12 041         | 12 483         | -3.5%               | 39 143         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>39 204</b> | <b>-4.6%</b>        | <b>-4.0%</b>        |              | <b>126 044</b> | <b>132 004</b> | <b>-4.5%</b>        | <b>445 083</b> |              |

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

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

<sup>3</sup> year-to-date compared to same period last year



# GERMANY

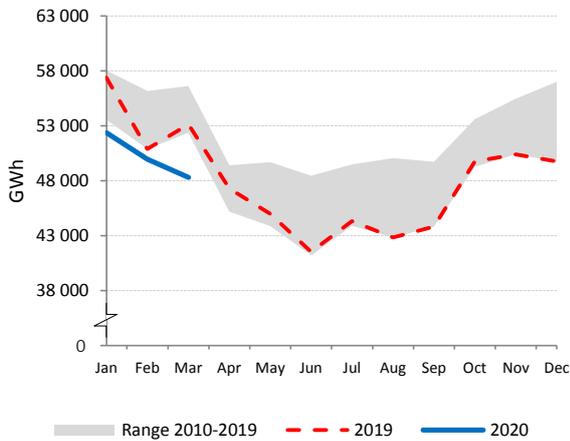
|                               | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>22 007</b> | <b>-9.0%</b>        | <b>7.0%</b>         | <b>45.6%</b> | <b>70 225</b>  | <b>87 807</b>  | <b>-20.0%</b>       | <b>310 636</b> | <b>53.9%</b> |
| Coal                          | 9 936         | -22.0%              | 14.3%               | 20.6%        | 32 357         | 49 326         | -34.4%              | 165 423        | 28.7%        |
| Oil                           | 355           | -6.6%               | 2.2%                | 0.7%         | 1 091          | 1 192          | -8.4%               | 4 581          | 0.8%         |
| Natural Gas                   | 7 230         | 8.3%                | 1.7%                | 15.0%        | 23 232         | 23 791         | -2.3%               | 87 614         | 15.2%        |
| Combustible Renewables        | 3 992         | 3.5%                | 1.6%                | 8.3%         | 12 044         | 11 912         | 1.1%                | 46 664         | 8.1%         |
| Other Combustibles            | 494           | -8.6%               | 2.7%                | 1.0%         | 1 501          | 1 587          | -5.4%               | 6 354          | 1.1%         |
| <b>Nuclear</b>                | <b>5 371</b>  | <b>-19.5%</b>       | <b>4.6%</b>         | <b>11.1%</b> | <b>16 285</b>  | <b>19 608</b>  | <b>-16.9%</b>       | <b>70 591</b>  | <b>12.3%</b> |
| <b>Hydro</b>                  | <b>2 575</b>  | <b>-7.1%</b>        | <b>5.0%</b>         | <b>5.3%</b>  | <b>6 999</b>   | <b>7 159</b>   | <b>-2.2%</b>        | <b>27 606</b>  | <b>4.8%</b>  |
| <b>Wind</b>                   | <b>13 865</b> | <b>-14.0%</b>       | <b>-30.3%</b>       | <b>28.7%</b> | <b>49 401</b>  | <b>40 402</b>  | <b>22.3%</b>        | <b>121 007</b> | <b>21.0%</b> |
| <b>Solar</b>                  | <b>4 362</b>  | <b>34.7%</b>        | <b>142.2%</b>       | <b>9.0%</b>  | <b>7 344</b>   | <b>6 013</b>   | <b>22.1%</b>        | <b>44 506</b>  | <b>7.7%</b>  |
| Geothermal                    | 14            | -                   | -9.5%               | 0.0%         | 46             | 40             | 13.9%               | 144            | 0.0%         |
| Other Renewables              | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| Non-Specified                 | 113           | -8.4%               | -2.7%               | 0.2%         | 345            | 342            | 0.9%                | 1 527          | 0.3%         |
| <b>RENEWABLES</b>             | <b>24 808</b> | <b>-4.6%</b>        | <b>-11.6%</b>       | <b>51.4%</b> | <b>75 833</b>  | <b>65 526</b>  | <b>15.7%</b>        | <b>239 927</b> | <b>41.7%</b> |
| <b>NON-RENEWABLES</b>         | <b>23 498</b> | <b>-13.4%</b>       | <b>7.4%</b>         | <b>48.6%</b> | <b>74 811</b>  | <b>95 844</b>  | <b>-21.9%</b>       | <b>336 090</b> | <b>58.3%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>48 307</b> | <b>-9.1%</b>        | <b>-3.3%</b>        |              | <b>150 645</b> | <b>161 371</b> | <b>-6.6%</b>        | <b>576 017</b> |              |
| + Imports                     | 3 745         | 55.0%               | 18.3%               |              | 10 331         | 5 964          | 73.2%               | 40 156         |              |
| - Exports                     | 6 031         | -21.0%              | -16.1%              |              | 21 046         | 23 663         | -11.1%              | 73 042         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>46 021</b> | <b>-4.0%</b>        | <b>0.2%</b>         |              | <b>139 930</b> | <b>143 672</b> | <b>-2.6%</b>        | <b>543 130</b> |              |
| - Used for pumped storage     | 774           | 0.8%                | -2.7%               |              | 2 303          | 2 202          | 4.6%                | 8 165          |              |
| - T&D Losses                  | 2 420         | 0.3%                | -8.4%               |              | 7 965          | 7 720          | 3.2%                | 26 458         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>42 827</b> | <b>-4.3%</b>        | <b>0.8%</b>         |              | <b>129 663</b> | <b>133 750</b> | <b>-3.1%</b>        | <b>508 507</b> |              |

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

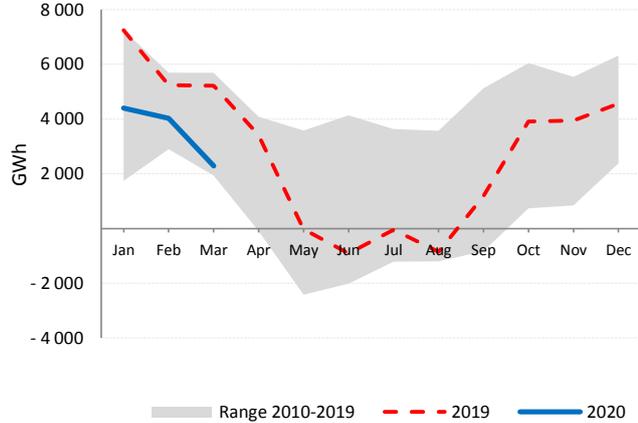
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

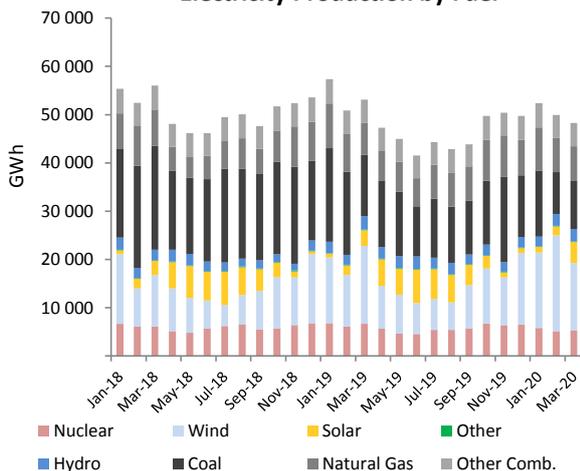
Electricity Production



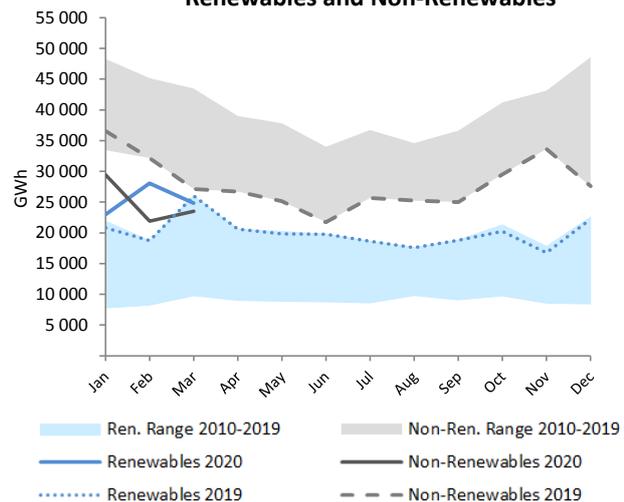
Net Electricity Exports



Electricity Production by Fuel



Renewables and Non-Renewables



# GREECE

|                                     | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                                     | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>         | <b>2 003</b> | <b>-13.0%</b>       | <b>-16.1%</b>       | <b>59.5%</b> | <b>7 573</b>  | <b>8 905</b>  | <b>-15.0%</b>       | <b>32 613</b> | <b>68.8%</b> |
| Coal                                | 551          | -46.8%              | -30.0%              | 16.4%        | 2 507         | 3 489         | -26.2%              | 11 255        | 23.8%        |
| Oil                                 | 327          | -3.0%               | -8.8%               | 9.7%         | 1 093         | 1 131         | -3.4%               | 5 189         | 11.0%        |
| Natural Gas                         | 1 101        | 27.7%               | -5.3%               | 32.7%        | 3 870         | 4 154         | -6.8%               | 15 714        | 33.2%        |
| Combustible Renewables <sup>4</sup> | 17           | -13.0%              | -16.1%              | 0.5%         | 64            | 75            | -15.0%              | 274           | 0.6%         |
| Other Combustibles <sup>4</sup>     | 8            | -54.1%              | -39.6%              | 0.2%         | 39            | 57            | -31.2%              | 181           | 0.4%         |
| Nuclear                             | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Hydro                               | 214          | -8.8%               | 39.4%               | 6.3%         | 612           | 985           | -37.8%              | 3 527         | 7.4%         |
| Wind                                | 819          | 21.8%               | 1.7%                | 24.3%        | 2 411         | 2 018         | 19.5%               | 7 278         | 15.4%        |
| Solar                               | 333          | -4.5%               | 17.4%               | 9.9%         | 875           | 755           | 15.8%               | 3 960         | 8.4%         |
| Geothermal                          | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables                    | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified                       | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>RENEWABLES</b>                   | <b>1 383</b> | <b>8.4%</b>         | <b>9.5%</b>         | <b>41.0%</b> | <b>3 962</b>  | <b>3 833</b>  | <b>3.4%</b>         | <b>15 039</b> | <b>31.7%</b> |
| <b>NON-RENEWABLES</b>               | <b>1 987</b> | <b>-13.0%</b>       | <b>-16.1%</b>       | <b>59.0%</b> | <b>7 509</b>  | <b>8 831</b>  | <b>-15.0%</b>       | <b>32 339</b> | <b>68.3%</b> |
| <b>TOTAL NET PRODUCTION</b>         | <b>3 369</b> | <b>-5.3%</b>        | <b>-7.2%</b>        |              | <b>11 471</b> | <b>12 664</b> | <b>-9.4%</b>        | <b>47 378</b> |              |
| + Imports                           | 1 111        | 4.0%                | 7.1%                |              | 3 065         | 2 547         | 20.3%               | 10 869        |              |
| - Exports                           | 5            | -94.1%              | -34.3%              |              | 41            | 522           | -92.1%              | 1 167         |              |
| <b>= ELECTRICITY SUPPLIED</b>       | <b>4 475</b> | <b>-1.3%</b>        | <b>-4.0%</b>        |              | <b>14 494</b> | <b>14 689</b> | <b>-1.3%</b>        | <b>57 080</b> |              |
| - Used for pumped storage           | 27           | 275.4%              | 179.5%              |              | 42            | 8             | 412.1%              | 47            |              |
| - T&D Losses                        | 385          | -7.3%               | 3.6%                |              | 1 198         | 1 316         | -9.0%               | 4 936         |              |
| <b>= ELECTRICITY CONSUMED</b>       | <b>4 063</b> | <b>-1.2%</b>        | <b>-5.1%</b>        |              | <b>13 253</b> | <b>13 364</b> | <b>-0.8%</b>        | <b>52 098</b> |              |

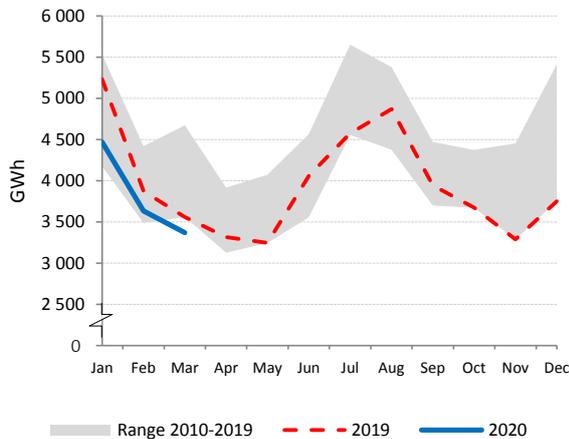
<sup>1</sup> current month to month of last year change

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

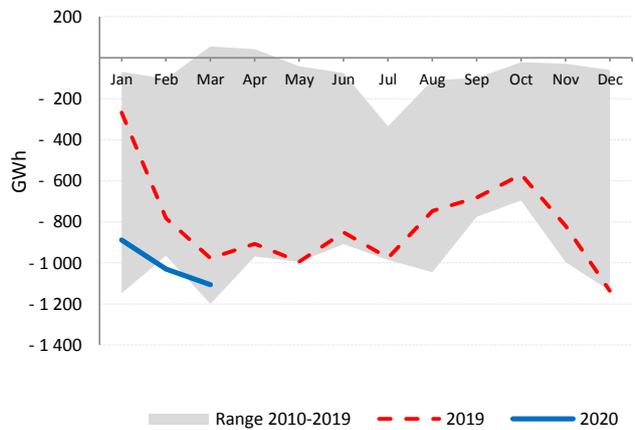
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

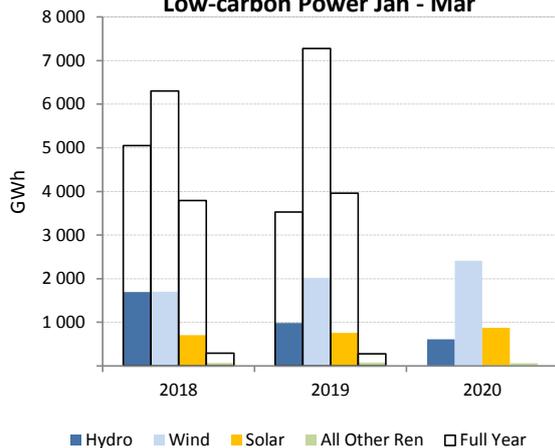
Electricity Production



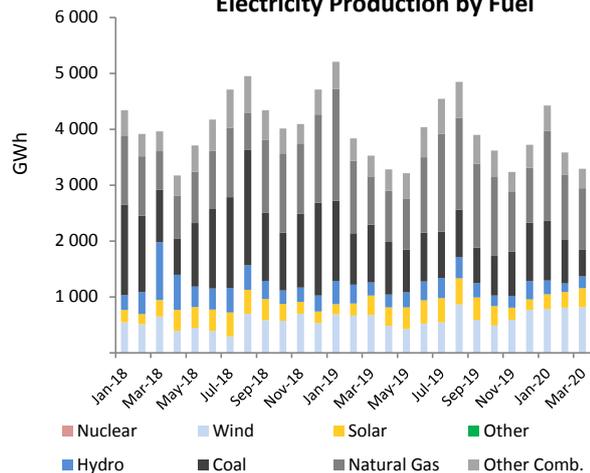
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# HUNGARY

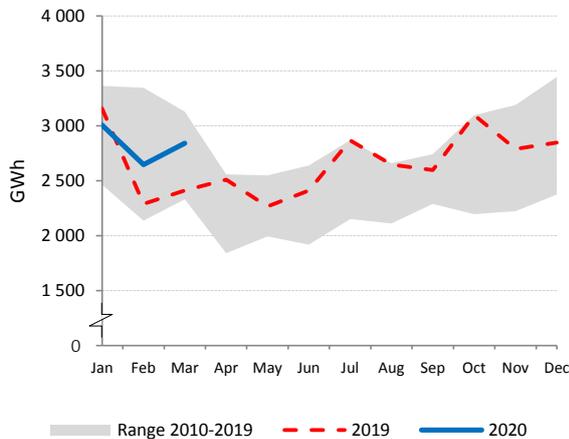
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 182</b> | <b>6.8%</b>         | <b>-13.2%</b>       | <b>41.6%</b> | <b>3 976</b>  | <b>3 773</b>  | <b>5.4%</b>         | <b>13 997</b> | <b>43.9%</b> |
| Coal                          | 354          | -4.4%               | 5.2%                | 12.5%        | 1 041         | 1 082         | -3.8%               | 3 834         | 12.0%        |
| Oil                           | 4            | -18.0%              | 62.4%               | 0.1%         | 9             | 14            | -34.8%              | 60            | 0.2%         |
| Natural Gas                   | 670          | 30.4%               | -23.9%              | 23.6%        | 2 487         | 2 095         | 18.7%               | 7 857         | 24.6%        |
| Combustible Renewables        | 137          | -29.6%              | 10.7%               | 4.8%         | 384           | 522           | -26.3%              | 1 976         | 6.2%         |
| Other Combustibles            | 17           | -27.9%              | -7.1%               | 0.6%         | 54            | 60            | -9.6%               | 270           | 0.8%         |
| <b>Nuclear</b>                | <b>1 362</b> | <b>25.7%</b>        | <b>33.5%</b>        | <b>47.9%</b> | <b>3 828</b>  | <b>3 543</b>  | <b>8.0%</b>         | <b>15 412</b> | <b>48.3%</b> |
| Hydro                         | 14           | -23.5%              | -21.6%              | 0.5%         | 52            | 57            | -8.5%               | 213           | 0.7%         |
| Wind                          | 70           | -4.1%               | -31.7%              | 2.5%         | 210           | 230           | -8.7%               | 705           | 2.2%         |
| Solar                         | 202          | 72.7%               | 53.9%               | 7.1%         | 395           | 220           | 79.2%               | 1 422         | 4.5%         |
| Geothermal                    | 1            | 17.3%               | 3.2%                | 0.0%         | 3             | 2             | 17.9%               | 9             | 0.0%         |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified                 | 11           | -                   | -                   | 0.4%         | 32            | 32            | -                   | 127           | 0.4%         |
| <b>RENEWABLES</b>             | <b>424</b>   | <b>5.0%</b>         | <b>12.6%</b>        | <b>14.9%</b> | <b>1 044</b>  | <b>1 032</b>  | <b>1.2%</b>         | <b>4 325</b>  | <b>13.6%</b> |
| <b>NON-RENEWABLES</b>         | <b>2 418</b> | <b>20.5%</b>        | <b>6.6%</b>         | <b>85.1%</b> | <b>7 451</b>  | <b>6 826</b>  | <b>9.2%</b>         | <b>27 560</b> | <b>86.4%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>2 842</b> | <b>17.9%</b>        | <b>7.4%</b>         |              | <b>8 496</b>  | <b>7 858</b>  | <b>8.1%</b>         | <b>31 885</b> |              |
| + Imports                     | 1 618        | -12.4%              | -15.2%              |              | 5 451         | 5 547         | -1.7%               | 19 854        |              |
| - Exports                     | 601          | 25.4%               | -22.6%              |              | 2 125         | 1 839         | 15.5%               | 7 268         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>3 860</b> | <b>2.1%</b>         | <b>2.2%</b>         |              | <b>11 822</b> | <b>11 565</b> | <b>2.2%</b>         | <b>44 470</b> |              |
| - Used for pumped storage     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - T&D Losses                  | 277          | -6.8%               | -3.8%               |              | 902           | 990           | -8.9%               | 3 307         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>3 583</b> | <b>2.9%</b>         | <b>2.6%</b>         |              | <b>10 920</b> | <b>10 575</b> | <b>3.3%</b>         | <b>41 163</b> |              |

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

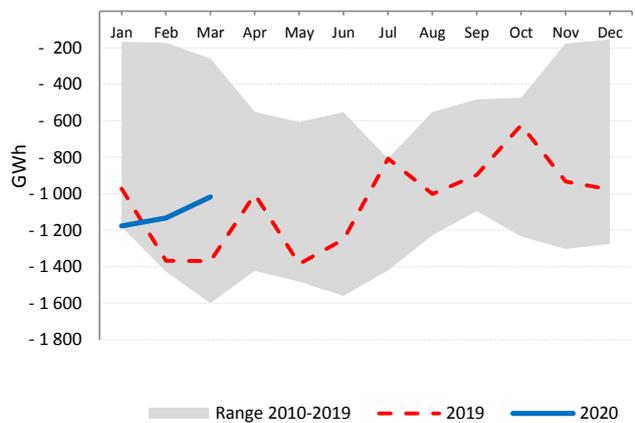
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

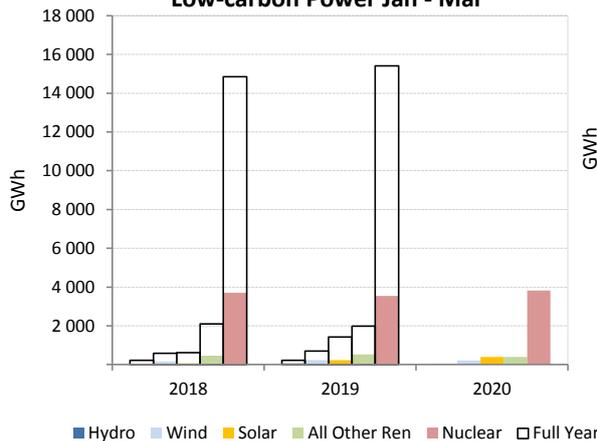
Electricity Production



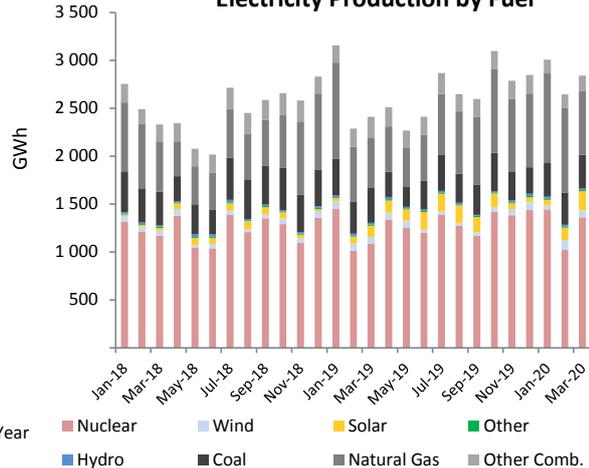
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# ICELAND

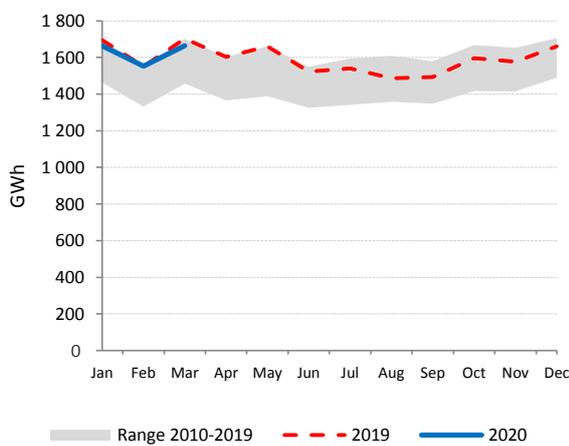
|                               | Mar 2020     |                     |                     |               | Year-to-Date |              |                     | 2019          |               |
|-------------------------------|--------------|---------------------|---------------------|---------------|--------------|--------------|---------------------|---------------|---------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share         | 2020         | 2019         | change <sup>3</sup> | GWh           | share         |
| <b>CONVENTIONAL THERMAL</b>   | <b>0</b>     | <b>33.6%</b>        | <b>-73.7%</b>       | <b>0.0%</b>   | <b>2</b>     | <b>0</b>     | <b>332.8%</b>       | <b>3</b>      | <b>0.0%</b>   |
| Coal                          | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| Oil                           | 0            | 33.6%               | -73.7%              | 0.0%          | 2            | 0            | 332.8%              | 3             | 0.0%          |
| Natural Gas                   | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| Combustible Renewables        | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| Other Combustibles            | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| <b>Nuclear</b>                | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>      | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>      |
| <b>Hydro</b>                  | <b>1 168</b> | <b>-3.9%</b>        | <b>9.6%</b>         | <b>70.1%</b>  | <b>3 374</b> | <b>3 473</b> | <b>-2.9%</b>        | <b>13 328</b> | <b>69.8%</b>  |
| <b>Wind</b>                   | <b>1</b>     | <b>23.0%</b>        | <b>12.5%</b>        | <b>0.0%</b>   | <b>2</b>     | <b>2</b>     | <b>24.0%</b>        | <b>7</b>      | <b>0.0%</b>   |
| <b>Solar</b>                  | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>      | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>      |
| <b>Geothermal</b>             | <b>496</b>   | <b>1.9%</b>         | <b>2.1%</b>         | <b>29.8%</b>  | <b>1 503</b> | <b>1 475</b> | <b>1.9%</b>         | <b>5 755</b>  | <b>30.1%</b>  |
| <b>Other Renewables</b>       | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>      | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>      |
| <b>Non-Specified</b>          | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>      | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>      |
| <b>RENEWABLES</b>             | <b>1 664</b> | <b>-2.2%</b>        | <b>7.2%</b>         | <b>100.0%</b> | <b>4 879</b> | <b>4 950</b> | <b>-1.4%</b>        | <b>19 090</b> | <b>100.0%</b> |
| <b>NON-RENEWABLES</b>         | <b>0</b>     | <b>34.5%</b>        | <b>-73.7%</b>       | <b>0.0%</b>   | <b>2</b>     | <b>0</b>     | <b>333.8%</b>       | <b>3</b>      | <b>0.0%</b>   |
| <b>TOTAL NET PRODUCTION</b>   | <b>1 664</b> | <b>-2.2%</b>        | <b>7.2%</b>         |               | <b>4 881</b> | <b>4 950</b> | <b>-1.4%</b>        | <b>19 093</b> |               |
| + Imports                     | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| - Exports                     | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| <b>= ELECTRICITY SUPPLIED</b> | <b>1 664</b> | <b>-2.2%</b>        | <b>7.2%</b>         |               | <b>4 881</b> | <b>4 950</b> | <b>-1.4%</b>        | <b>19 093</b> |               |
| - Used for pumped storage     | -            | -                   | -                   | -             | -            | -            | -                   | -             | -             |
| - T&D Losses                  | 47           | -1.0%               | 4.2%                |               | 140          | 141          | -1.0%               | 559           |               |
| <b>= ELECTRICITY CONSUMED</b> | <b>1 617</b> | <b>-2.3%</b>        | <b>7.3%</b>         |               | <b>4 741</b> | <b>4 809</b> | <b>-1.4%</b>        | <b>18 534</b> |               |

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

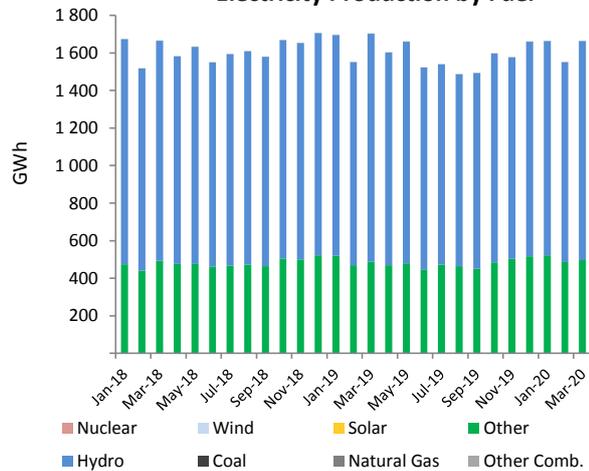
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

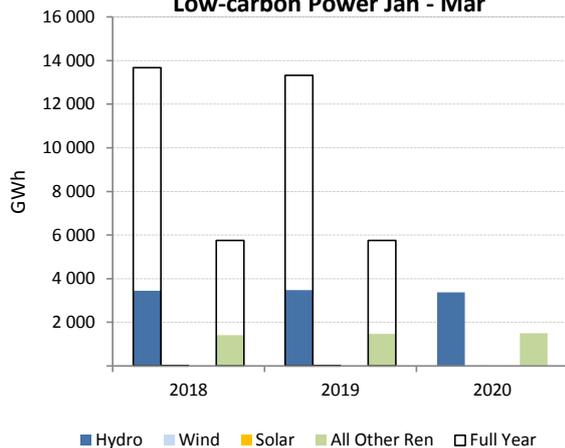
**Electricity Production**



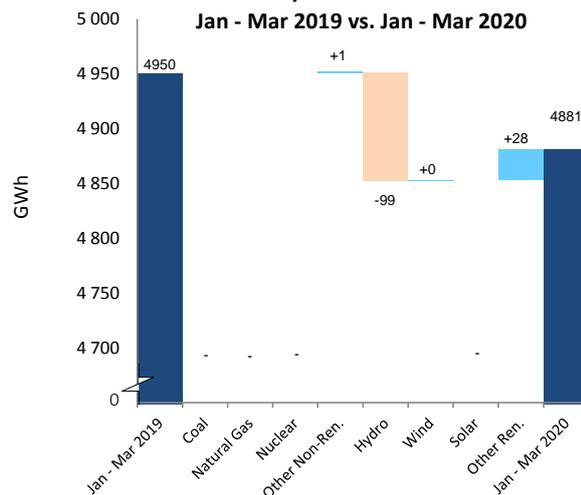
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



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



# IRELAND

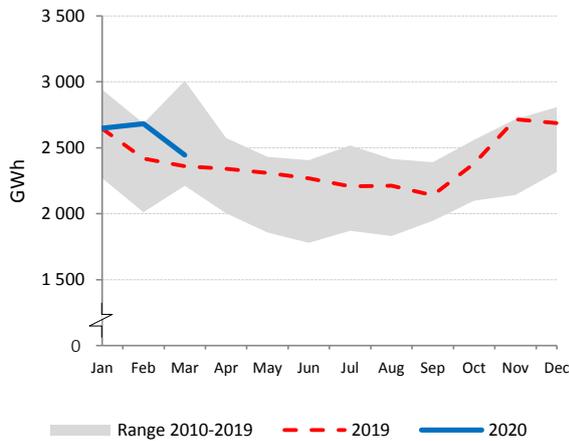
|                               | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 353</b> | <b>0.2%</b>         | <b>21.5%</b>        | <b>55.3%</b> | <b>3 849</b> | <b>4 168</b> | <b>-7.6%</b>        | <b>17 895</b> | <b>62.4%</b> |
| Coal                          | 55           | -53.4%              | -                   | 2.2%         | 62           | 541          | -88.5%              | 1 122         | 3.9%         |
| Oil                           | 25           | 35.8%               | 105.9%              | 1.0%         | 67           | 80           | -16.4%              | 328           | 1.1%         |
| Natural Gas                   | 1 157        | 2.3%                | 17.5%               | 47.3%        | 3 358        | 3 294        | 2.0%                | 15 384        | 53.6%        |
| Combustible Renewables        | 95           | 63.4%               | 0.0%                | 3.9%         | 293          | 176          | 66.1%               | 779           | 2.7%         |
| Other Combustibles            | 22           | -16.3%              | -1.3%               | 0.9%         | 69           | 77           | -10.4%              | 281           | 1.0%         |
| Nuclear                       | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Hydro                         | 148          | 10.5%               | 6.2%                | 6.0%         | 416          | 328          | 26.6%               | 1 116         | 3.9%         |
| Wind                          | 943          | 7.9%                | -34.0%              | 38.6%        | 3 508        | 2 925        | 19.9%               | 9 656         | 33.7%        |
| Solar                         | 1            | -                   | 74.8%               | 0.1%         | 3            | 3            | -                   | 17            | 0.1%         |
| Geothermal                    | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>1 188</b> | <b>11.2%</b>        | <b>-28.6%</b>       | <b>48.6%</b> | <b>4 219</b> | <b>3 432</b> | <b>22.9%</b>        | <b>11 568</b> | <b>40.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>1 258</b> | <b>-2.6%</b>        | <b>23.5%</b>        | <b>51.4%</b> | <b>3 557</b> | <b>3 992</b> | <b>-10.9%</b>       | <b>17 116</b> | <b>59.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>2 446</b> | <b>3.6%</b>         | <b>-8.8%</b>        |              | <b>7 776</b> | <b>7 424</b> | <b>4.7%</b>         | <b>28 684</b> |              |
| + Imports                     | 185          | -8.4%               | 43.7%               |              | 524          | 603          | -13.2%              | 2 097         |              |
| - Exports                     | 138          | -9.3%               | -38.9%              |              | 493          | 382          | 29.0%               | 1 481         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>2 493</b> | <b>3.4%</b>         | <b>-3.6%</b>        |              | <b>7 807</b> | <b>7 645</b> | <b>2.1%</b>         | <b>29 300</b> |              |
| - Used for pumped storage     | 48           | 14.6%               | 3.7%                |              | 143          | 127          | 13.1%               | 478           |              |
| - T&D Losses                  | 184          | 2.7%                | -6.4%               |              | 580          | 561          | 3.4%                | 2 152         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>2 261</b> | <b>3.3%</b>         | <b>-3.5%</b>        |              | <b>7 083</b> | <b>6 957</b> | <b>1.8%</b>         | <b>26 670</b> |              |

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

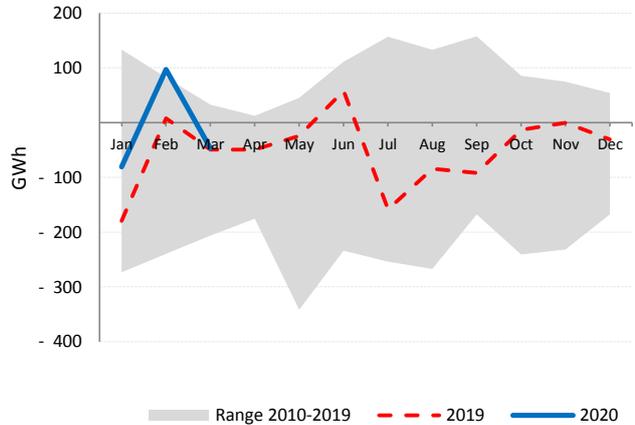
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

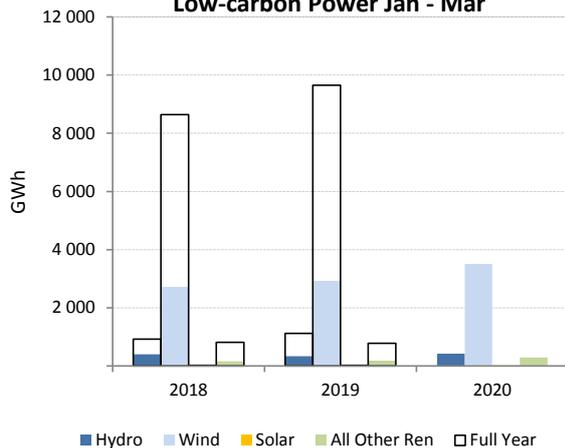
Electricity Production



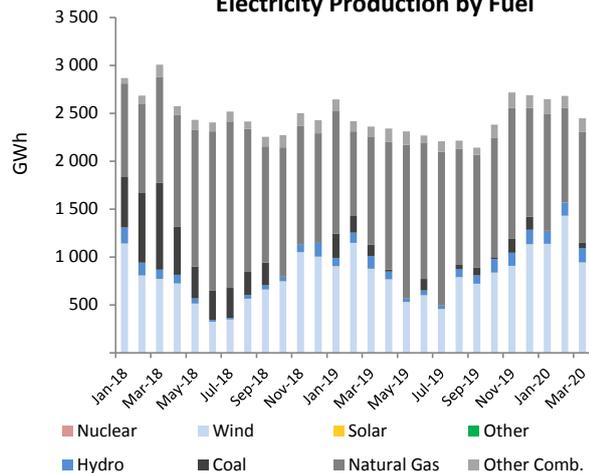
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# ITALY

|                                     | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                                     | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>         | <b>12 861</b> | <b>-16.0%</b>       | <b>-11.4%</b>       | <b>64.1%</b> | <b>44 682</b> | <b>49 315</b> | <b>-9.4%</b>        | <b>185 556</b> | <b>65.5%</b> |
| Coal <sup>5</sup>                   | 2 072         | -16.0%              | -11.4%              | 10.3%        | 7 199         | 7 946         | -9.4%               | 29 897         | 10.5%        |
| Oil <sup>5</sup>                    | 738           | -16.0%              | -11.4%              | 3.7%         | 2 565         | 2 831         | -9.4%               | 10 652         | 3.8%         |
| Natural Gas <sup>5</sup>            | 8 604         | -16.0%              | -11.4%              | 42.9%        | 29 893        | 32 992        | -9.4%               | 124 140        | 43.8%        |
| Combustible Renewables <sup>5</sup> | 1 282         | -16.0%              | -11.4%              | 6.4%         | 4 454         | 4 916         | -9.4%               | 18 497         | 6.5%         |
| Other Combustibles <sup>5</sup>     | 164           | -16.0%              | -11.4%              | 0.8%         | 571           | 630           | -9.4%               | 2 370          | 0.8%         |
| <b>Nuclear</b>                      | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Hydro</b>                        | <b>2 859</b>  | <b>32.1%</b>        | <b>7.3%</b>         | <b>14.2%</b> | <b>9 002</b>  | <b>7 663</b>  | <b>17.5%</b>        | <b>47 582</b>  | <b>16.8%</b> |
| <b>Wind</b>                         | <b>1 785</b>  | <b>-28.1%</b>       | <b>-26.7%</b>       | <b>8.9%</b>  | <b>6 017</b>  | <b>7 208</b>  | <b>-16.5%</b>       | <b>20 340</b>  | <b>7.2%</b>  |
| <b>Solar</b>                        | <b>2 015</b>  | <b>-13.0%</b>       | <b>16.0%</b>        | <b>10.0%</b> | <b>4 981</b>  | <b>4 971</b>  | <b>0.2%</b>         | <b>23 665</b>  | <b>8.4%</b>  |
| <b>Geothermal</b>                   | <b>502</b>    | <b>3.3%</b>         | <b>8.3%</b>         | <b>2.5%</b>  | <b>1 460</b>  | <b>1 428</b>  | <b>2.2%</b>         | <b>5 736</b>   | <b>2.0%</b>  |
| <b>Other Renewables</b>             | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Non-Specified</b>                | <b>44</b>     | -                   | -                   | <b>0.2%</b>  | <b>133</b>    | <b>133</b>    | -                   | <b>533</b>     | <b>0.2%</b>  |
| <b>RENEWABLES</b>                   | <b>8 444</b>  | <b>-5.9%</b>        | <b>-3.5%</b>        | <b>42.1%</b> | <b>25 913</b> | <b>26 187</b> | <b>-1.0%</b>        | <b>115 821</b> | <b>40.9%</b> |
| <b>NON-RENEWABLES</b>               | <b>11 623</b> | <b>-16.0%</b>       | <b>-11.4%</b>       | <b>57.9%</b> | <b>40 361</b> | <b>44 532</b> | <b>-9.4%</b>        | <b>167 592</b> | <b>59.1%</b> |
| <b>TOTAL NET PRODUCTION</b>         | <b>20 067</b> | <b>-12.0%</b>       | <b>-8.2%</b>        |              | <b>66 274</b> | <b>70 719</b> | <b>-6.3%</b>        | <b>283 413</b> |              |
| + Imports                           | 4 435         | 5.6%                | -3.9%               |              | 13 111        | 11 706        | 12.0%               | 43 977         |              |
| - Exports                           | 499           | 19.4%               | -8.8%               |              | 1 795         | 1 273         | 40.9%               | 5 823          |              |
| <b>= ELECTRICITY SUPPLIED</b>       | <b>24 003</b> | <b>-9.7%</b>        | <b>-7.4%</b>        |              | <b>77 591</b> | <b>81 151</b> | <b>-4.4%</b>        | <b>321 567</b> |              |
| - Used for pumped storage           | 315           | 36.3%               | 63.4%               |              | 684           | 680           | 0.6%                | 2 498          |              |
| - T&D Losses <sup>4</sup>           | 1 348         | -9.3%               | -7.5%               |              | 4 367         | 4 534         | -3.7%               | 18 009         |              |
| <b>= ELECTRICITY CONSUMED</b>       | <b>22 341</b> | <b>-10.2%</b>       | <b>-8.0%</b>        |              | <b>72 540</b> | <b>75 937</b> | <b>-4.5%</b>        | <b>301 061</b> |              |

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

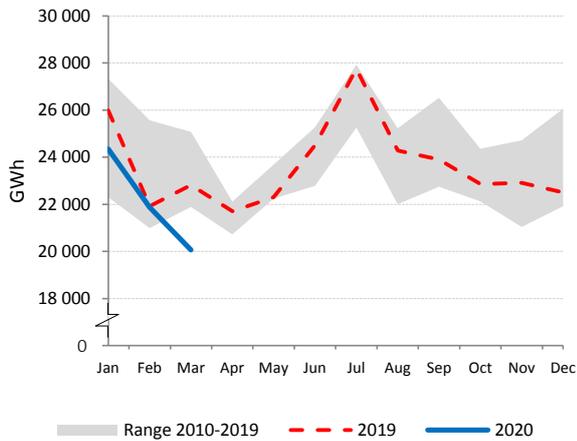
<sup>4</sup> estimated

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

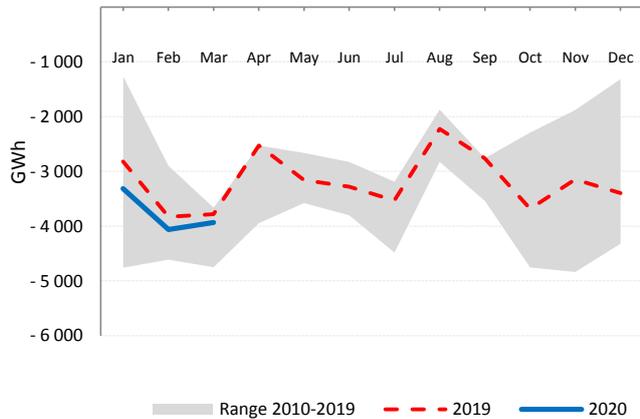
<sup>5</sup> estimated from annual data

<sup>3</sup> year-to-date compared to same period last year

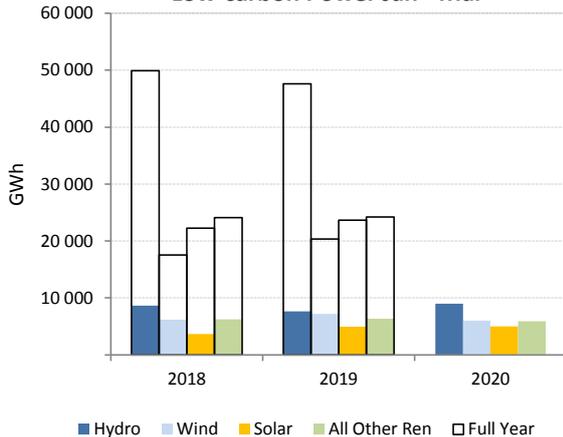
Electricity Production



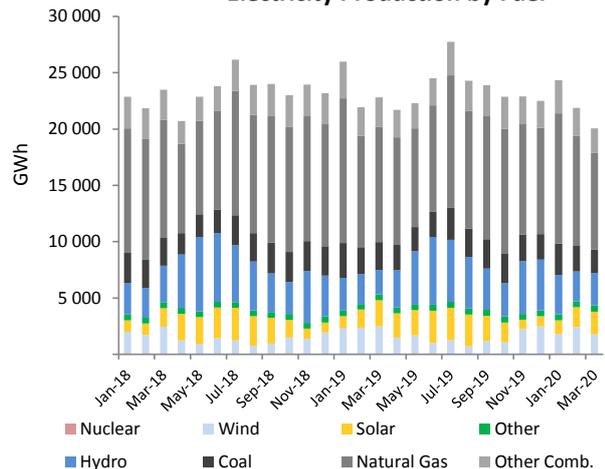
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# JAPAN

|  | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019             |              |
|--|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|------------------|--------------|
|  | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh              | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>62 786</b> | <b>-3.2%</b>        | <b>-4.9%</b>        | <b>74.1%</b> | <b>201 513</b> | <b>210 468</b> | <b>-4.3%</b>        | <b>756 081</b>   | <b>75.1%</b> |
| Coal                                   | 28 022        | 1.9%                | -4.0%               | 33.1%        | 88 248         | 86 628         | 1.9%                | 321 098          | 31.9%        |
| Oil                                    | 1 962         | -43.2%              | -13.4%              | 2.3%         | 7 755          | 13 570         | -42.8%              | 40 101           | 4.0%         |
| Natural Gas                            | 28 262        | -5.2%               | -6.9%               | 33.4%        | 92 303         | 99 202         | -7.0%               | 352 800          | 35.0%        |
| Combustible Renewables                 | 4 540         | 113.9%              | 7.9%                | 5.4%         | 13 207         | 5 863          | 125.3%              | 36 878           | 3.7%         |
| Other Combustibles <sup>4</sup>        | -             | -                   | -                   | -            | -              | 5 204          | -                   | 5 204            | 0.5%         |
| <b>Nuclear</b>                         | <b>4 998</b>  | <b>-23.5%</b>       | <b>2.3%</b>         | <b>5.9%</b>  | <b>14 610</b>  | <b>18 959</b>  | <b>-22.9%</b>       | <b>63 034</b>    | <b>6.3%</b>  |
| <b>Hydro</b>                           | <b>7 635</b>  | <b>24.1%</b>        | <b>19.9%</b>        | <b>9.0%</b>  | <b>20 162</b>  | <b>15 985</b>  | <b>26.1%</b>        | <b>83 827</b>    | <b>8.3%</b>  |
| <b>Wind</b>                            | <b>842</b>    | <b>6.0%</b>         | <b>-6.9%</b>        | <b>1.0%</b>  | <b>2 722</b>   | <b>2 533</b>   | <b>7.4%</b>         | <b>8 012</b>     | <b>0.8%</b>  |
| <b>Solar</b>                           | <b>6 060</b>  | <b>16.5%</b>        | <b>24.4%</b>        | <b>7.2%</b>  | <b>14 913</b>  | <b>13 188</b>  | <b>13.1%</b>        | <b>68 705</b>    | <b>6.8%</b>  |
| <b>Geothermal</b>                      | <b>217</b>    | <b>9.0%</b>         | <b>3.2%</b>         | <b>0.3%</b>  | <b>667</b>     | <b>575</b>     | <b>16.0%</b>        | <b>2 440</b>     | <b>0.2%</b>  |
| <b>Other Renewables</b>                | -             | -                   | -                   | -            | -              | -              | -                   | -                | -            |
| <b>Non-Specified</b>                   | <b>2 145</b>  | <b>9.0%</b>         | <b>-3.7%</b>        | <b>2.5%</b>  | <b>6 731</b>   | <b>6 224</b>   | <b>8.2%</b>         | <b>25 220</b>    | <b>2.5%</b>  |
| <b>RENEWABLES</b>                      | <b>19 294</b> | <b>33.3%</b>        | <b>16.5%</b>        | <b>22.8%</b> | <b>51 671</b>  | <b>38 145</b>  | <b>35.5%</b>        | <b>199 861</b>   | <b>19.8%</b> |
| <b>NON-RENEWABLES</b>                  | <b>65 388</b> | <b>-8.2%</b>        | <b>-5.2%</b>        | <b>77.2%</b> | <b>209 647</b> | <b>229 788</b> | <b>-8.8%</b>        | <b>807 456</b>   | <b>80.2%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>84 682</b> | <b>-1.2%</b>        | <b>-1.0%</b>        |              | <b>261 318</b> | <b>267 933</b> | <b>-2.5%</b>        | <b>1 007 318</b> |              |
| + Imports                              | -             | -                   | -                   |              | -              | -              | -                   | -                |              |
| - Exports                              | -             | -                   | -                   |              | -              | -              | -                   | -                |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>84 682</b> | <b>-1.2%</b>        | <b>-1.0%</b>        |              | <b>261 318</b> | <b>267 933</b> | <b>-2.5%</b>        | <b>1 007 318</b> |              |
| - Used for pumped storage <sup>4</sup> | 945           | 3.3%                | 0.0%                |              | 2 891          | 2 863          | 1.0%                | 11 943           |              |
| - T&D Losses <sup>4</sup>              | 3 766         | 3.3%                | 0.0%                |              | 11 522         | 11 408         | 1.0%                | 46 756           |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>79 972</b> | <b>-1.4%</b>        | <b>-1.0%</b>        |              | <b>246 904</b> | <b>253 662</b> | <b>-2.7%</b>        | <b>948 619</b>   |              |

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

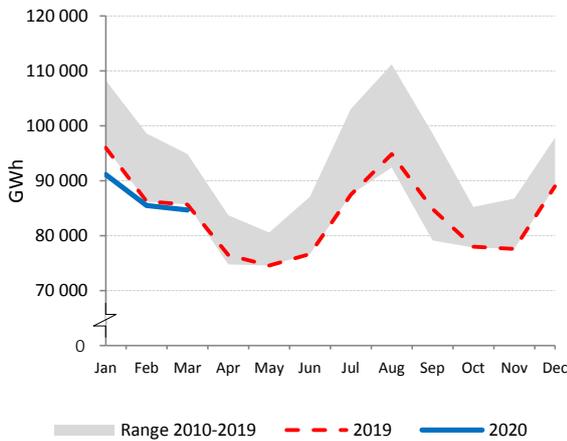
<sup>4</sup> estimated from annual data

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

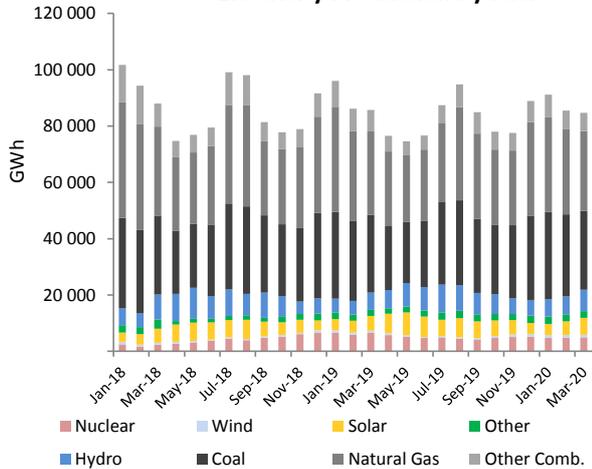
March 2020 is estimated by the IEA Secretariat using usual monthly patterns

<sup>3</sup> year-to-date compared to same period last year

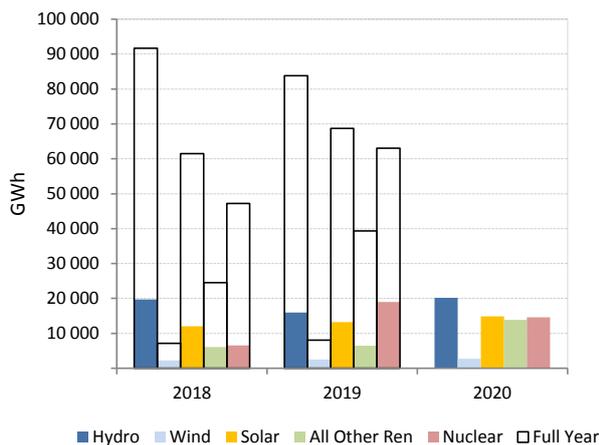
Electricity Production



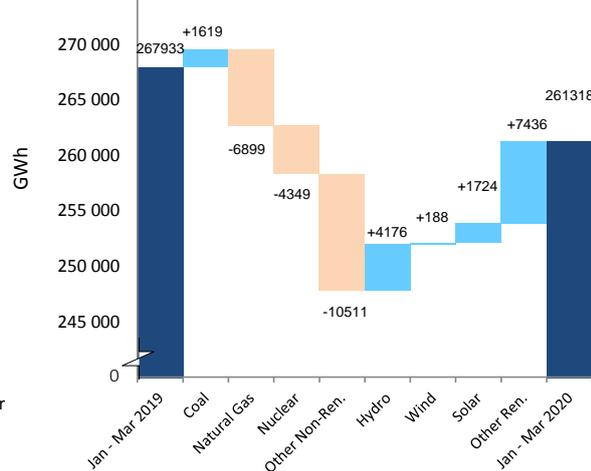
Electricity Production by Fuel



Low-carbon Power Jan - Mar



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

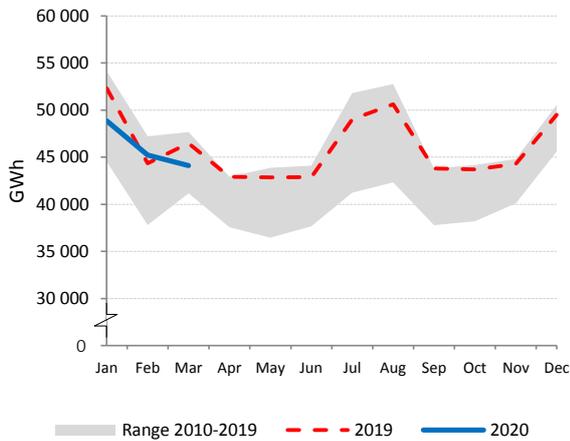


# KOREA

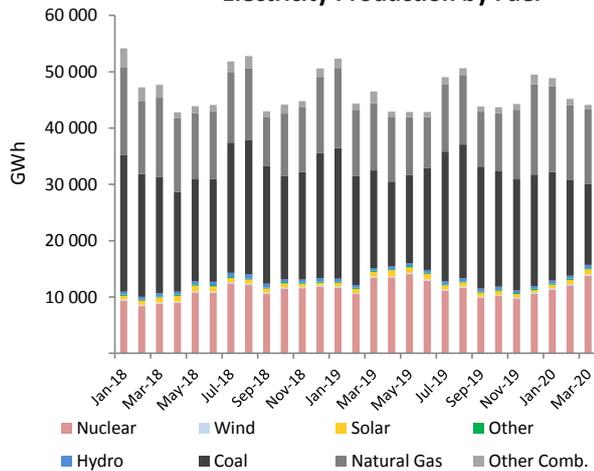
|  | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|--|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|  | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>            | <b>28 393</b> | <b>-9.5%</b>        | <b>-9.7%</b>        | <b>64.4%</b> | <b>95 798</b>  | <b>102 683</b> | <b>-6.7%</b>        | <b>393 475</b> | <b>71.2%</b> |
| Coal                                   | 14 353        | -17.4%              | -15.4%              | 32.5%        | 50 586         | 59 975         | -15.7%              | 237 365        | 42.9%        |
| Oil                                    | 260           | -82.0%              | -46.6%              | 0.6%         | 1 420          | 2 779          | -48.9%              | 7 050          | 1.3%         |
| Natural Gas                            | 13 230        | 10.7%               | -1.3%               | 30.0%        | 41 935         | 37 940         | 10.5%               | 141 434        | 25.6%        |
| Combustible Renewables                 | 490           | -9.5%               | -9.7%               | 1.1%         | 1 652          | 1 771          | -6.7%               | 6 787          | 1.2%         |
| Other Combustibles                     | 61            | -9.5%               | -9.7%               | 0.1%         | 204            | 219            | -6.7%               | 839            | 0.2%         |
| <b>Nuclear</b>                         | <b>13 767</b> | <b>3.1%</b>         | <b>14.0%</b>        | <b>31.2%</b> | <b>37 171</b>  | <b>35 526</b>  | <b>4.6%</b>         | <b>138 960</b> | <b>25.1%</b> |
| <b>Hydro</b>                           | <b>647</b>    | <b>44.5%</b>        | <b>22.9%</b>        | <b>1.5%</b>  | <b>1 710</b>   | <b>1 476</b>   | <b>15.9%</b>        | <b>6 222</b>   | <b>1.1%</b>  |
| <b>Wind</b>                            | <b>205</b>    | <b>-</b>            | <b>-</b>            | <b>0.5%</b>  | <b>616</b>     | <b>616</b>     | <b>-</b>            | <b>2 464</b>   | <b>0.4%</b>  |
| <b>Solar</b>                           | <b>897</b>    | <b>-</b>            | <b>20.5%</b>        | <b>2.0%</b>  | <b>2 278</b>   | <b>2 278</b>   | <b>-</b>            | <b>9 207</b>   | <b>1.7%</b>  |
| Geothermal                             | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| Other Renewables                       | 40            | -                   | -                   | 0.1%         | 121            | 121            | -                   | 485            | 0.1%         |
| Non-Specified                          | 157           | -                   | -                   | 0.4%         | 471            | 471            | -                   | 1 885          | 0.3%         |
| <b>RENEWABLES</b>                      | <b>2 280</b>  | <b>6.9%</b>         | <b>10.7%</b>        | <b>5.2%</b>  | <b>6 378</b>   | <b>6 263</b>   | <b>1.8%</b>         | <b>25 165</b>  | <b>4.6%</b>  |
| <b>NON-RENEWABLES</b>                  | <b>41 827</b> | <b>-5.7%</b>        | <b>-3.1%</b>        | <b>94.8%</b> | <b>131 789</b> | <b>136 909</b> | <b>-3.7%</b>        | <b>527 533</b> | <b>95.4%</b> |
| <b>TOTAL NET PRODUCTION</b>            | <b>44 107</b> | <b>-5.1%</b>        | <b>-2.4%</b>        |              | <b>138 167</b> | <b>143 172</b> | <b>-3.5%</b>        | <b>552 699</b> |              |
| + Imports                              | -             | -                   | -                   |              | -              | -              | -                   | -              |              |
| - Exports                              | -             | -                   | -                   |              | -              | -              | -                   | -              |              |
| <b>= ELECTRICITY SUPPLIED</b>          | <b>44 107</b> | <b>-5.1%</b>        | <b>-2.4%</b>        |              | <b>138 167</b> | <b>143 172</b> | <b>-3.5%</b>        | <b>552 699</b> |              |
| - Used for pumped storage <sup>4</sup> | 394           | 10.0%               | -5.5%               |              | 1 220          | 1 218          | 0.1%                | 4 539          |              |
| - T&D Losses <sup>4</sup>              | 1 417         | -5.1%               | -2.4%               |              | 4 439          | 4 599          | -3.5%               | 17 755         |              |
| <b>= ELECTRICITY CONSUMED</b>          | <b>42 295</b> | <b>-5.3%</b>        | <b>-2.4%</b>        |              | <b>132 508</b> | <b>137 354</b> | <b>-3.5%</b>        | <b>530 404</b> |              |

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

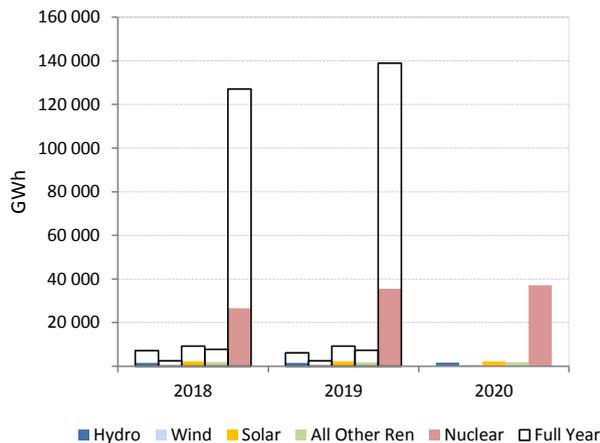
Electricity Production



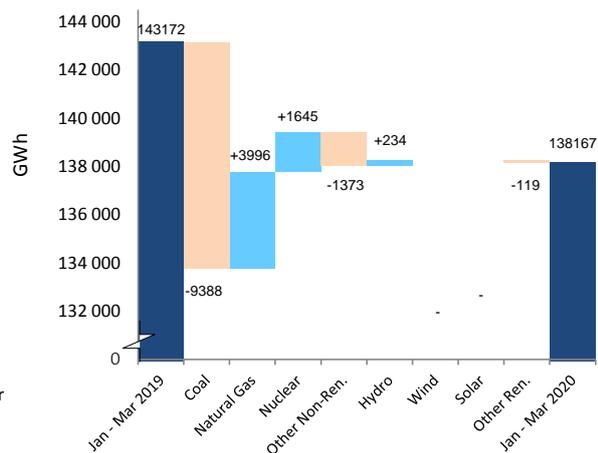
Electricity Production by Fuel



Low-carbon Power Jan - Mar



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

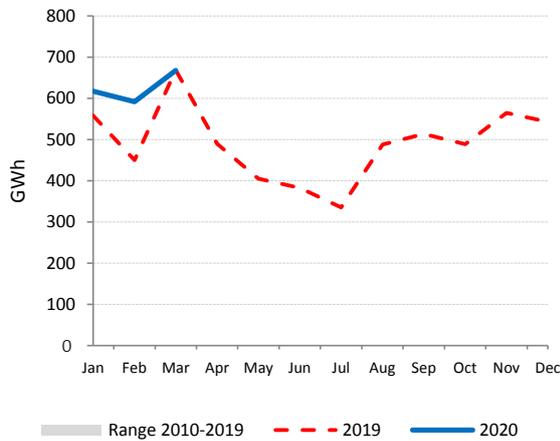


# LATVIA

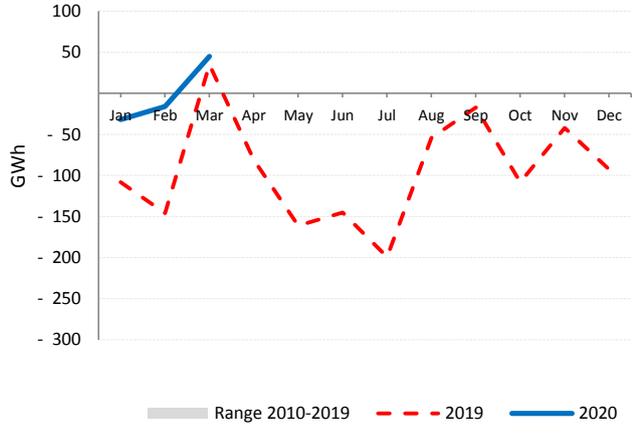
|                               | Mar 2020   |                     |                     |              | Year-to-Date |              |                     | 2019         |              |
|-------------------------------|------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|--------------|--------------|
|                               | GWh        | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh          | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>164</b> | <b>-37.1%</b>       | <b>-19.4%</b>       | <b>24.6%</b> | <b>565</b>   | <b>1 003</b> | <b>-43.6%</b>       | <b>3 636</b> | <b>61.8%</b> |
| Coal                          | 0          | -                   | -                   | -            | 0            | 0            | -                   | 0            | 0.0%         |
| Oil                           | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Natural Gas                   | 85         | -52.7%              | -34.5%              | 12.7%        | 340          | 760          | -55.3%              | 2 777        | 47.2%        |
| Combustible Renewables        | 79         | -2.6%               | 7.0%                | 11.9%        | 226          | 243          | -7.3%               | 858          | 14.6%        |
| Other Combustibles            | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| <b>Nuclear</b>                | <b>-</b>   | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>     | <b>-</b>     |
| <b>Hydro</b>                  | <b>486</b> | <b>25.6%</b>        | <b>33.2%</b>        | <b>72.8%</b> | <b>1 247</b> | <b>623</b>   | <b>100.2%</b>       | <b>2 095</b> | <b>35.6%</b> |
| Wind                          | 17         | -15.0%              | -26.1%              | 2.6%         | 64           | 50           | 28.0%               | 153          | 2.6%         |
| Solar                         | 0          | -                   | 158.5%              | 0.0%         | 0            | 0            | -                   | 1            | 0.0%         |
| Geothermal                    | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Other Renewables              | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Non-Specified                 | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| <b>RENEWABLES</b>             | <b>582</b> | <b>19.2%</b>        | <b>26.0%</b>        | <b>87.3%</b> | <b>1 537</b> | <b>917</b>   | <b>67.7%</b>        | <b>3 108</b> | <b>52.8%</b> |
| <b>NON-RENEWABLES</b>         | <b>85</b>  | <b>-52.7%</b>       | <b>-34.5%</b>       | <b>12.7%</b> | <b>340</b>   | <b>760</b>   | <b>-55.3%</b>       | <b>2 777</b> | <b>47.2%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>667</b> | <b>-0.1%</b>        | <b>12.8%</b>        |              | <b>1 876</b> | <b>1 676</b> | <b>11.9%</b>        | <b>5 885</b> |              |
| + Imports                     | 240        | -21.8%              | -26.8%              |              | 915          | 1 164        | -21.4%              | 4 613        |              |
| - Exports                     | 285        | -16.7%              | -8.7%               |              | 912          | 945          | -3.5%               | 3 495        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>622</b> | <b>-1.7%</b>        | <b>2.4%</b>         |              | <b>1 879</b> | <b>1 895</b> | <b>-0.8%</b>        | <b>7 004</b> |              |
| - Used for pumped storage     | -          | -                   | -                   |              | -            | -            | -                   | -            |              |
| - T&D Losses <sup>4</sup>     | 36         | -7.0%               | -1.4%               |              | 110          | 112          | -1.7%               | 414          |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>587</b> | <b>-1.4%</b>        | <b>2.6%</b>         |              | <b>1 769</b> | <b>1 783</b> | <b>-0.8%</b>        | <b>6 590</b> |              |

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

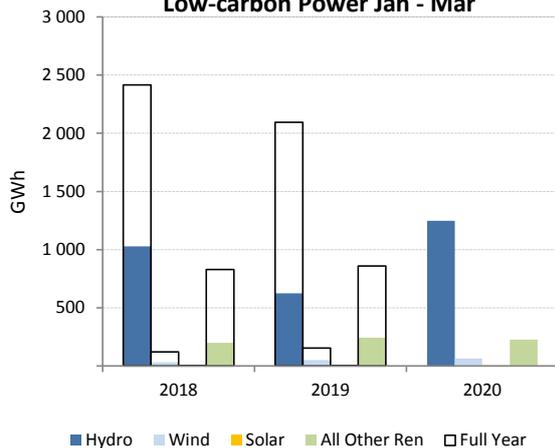
**Electricity Production**



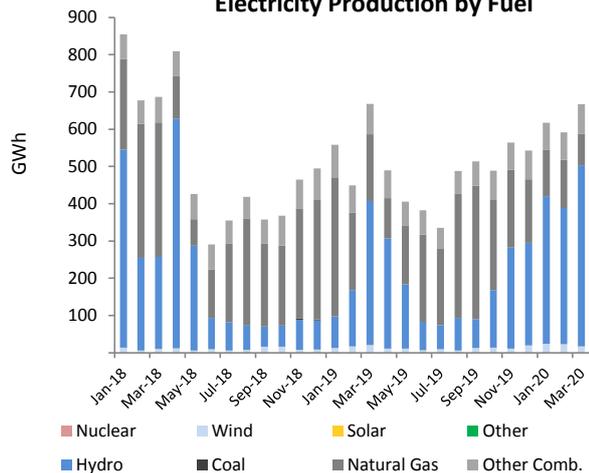
**Net Electricity Exports**



**Low-carbon Power Jan - Mar**



**Electricity Production by Fuel**



# LITHUANIA

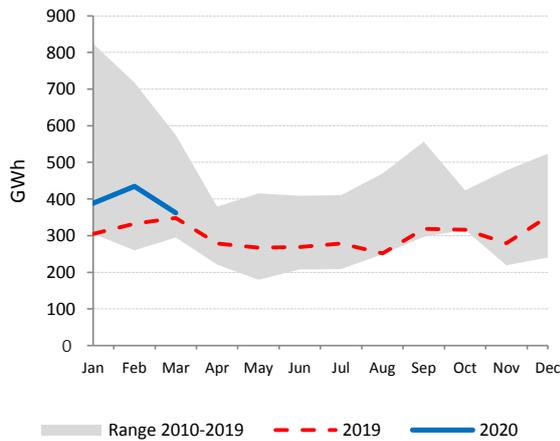
|                               | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>115</b>   | <b>20.0%</b>        | <b>-9.4%</b>        | <b>31.8%</b> | <b>351</b>   | <b>296</b>   | <b>18.4%</b>        | <b>1 110</b>  | <b>30.9%</b> |
| Coal                          | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Oil                           | 9            | 168.8%              | -18.1%              | 2.6%         | 36           | 16           | 133.5%              | 90            | 2.5%         |
| Natural Gas                   | 42           | 11.5%               | -26.0%              | 11.5%        | 126          | 118          | 6.9%                | 431           | 12.0%        |
| Combustible Renewables        | 57           | 15.2%               | 8.0%                | 15.7%        | 167          | 144          | 16.2%               | 517           | 14.4%        |
| Other Combustibles            | 7            | 25.1%               | 9.5%                | 2.0%         | 20           | 18           | 11.5%               | 72            | 2.0%         |
| <b>Nuclear</b>                | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Hydro</b>                  | <b>113</b>   | <b>65.4%</b>        | <b>4.4%</b>         | <b>31.0%</b> | <b>307</b>   | <b>217</b>   | <b>41.5%</b>        | <b>925</b>    | <b>25.7%</b> |
| <b>Wind</b>                   | <b>128</b>   | <b>-28.5%</b>       | <b>-35.2%</b>       | <b>35.2%</b> | <b>517</b>   | <b>464</b>   | <b>11.5%</b>        | <b>1 483</b>  | <b>41.2%</b> |
| <b>Solar</b>                  | <b>7</b>     | <b>28.0%</b>        | <b>166.8%</b>       | <b>2.0%</b>  | <b>11</b>    | <b>9</b>     | <b>19.5%</b>        | <b>78</b>     | <b>2.2%</b>  |
| Geothermal                    | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>304</b>   | <b>0.9%</b>         | <b>-15.5%</b>       | <b>83.9%</b> | <b>1 003</b> | <b>834</b>   | <b>20.2%</b>        | <b>3 003</b>  | <b>83.5%</b> |
| <b>NON-RENEWABLES</b>         | <b>58</b>    | <b>25.1%</b>        | <b>-21.7%</b>       | <b>16.1%</b> | <b>183</b>   | <b>152</b>   | <b>20.4%</b>        | <b>593</b>    | <b>16.5%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>363</b>   | <b>4.1%</b>         | <b>-16.6%</b>       |              | <b>1 186</b> | <b>986</b>   | <b>20.2%</b>        | <b>3 596</b>  |              |
| + Imports                     | 1 113        | 2.0%                | 3.3%                |              | 3 365        | 3 297        | 2.0%                | 13 268        |              |
| - Exports                     | 354          | -4.2%               | -7.9%               |              | 1 127        | 964          | 16.9%               | 3 924         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>1 122</b> | <b>4.8%</b>         | <b>-0.6%</b>        |              | <b>3 423</b> | <b>3 319</b> | <b>3.1%</b>         | <b>12 940</b> |              |
| - Used for pumped storage     | 100          | 272.3%              | 3.9%                |              | 261          | 99           | 162.6%              | 810           |              |
| - T&D Losses                  | 111          | 15.4%               | 18.6%               |              | 338          | 284          | 19.1%               | 911           |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>910</b>   | <b>-3.9%</b>        | <b>-2.9%</b>        |              | <b>2 824</b> | <b>2 936</b> | <b>-3.8%</b>        | <b>11 218</b> |              |

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

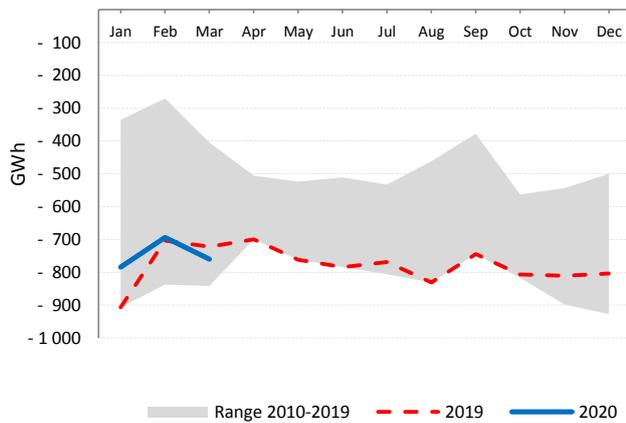
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

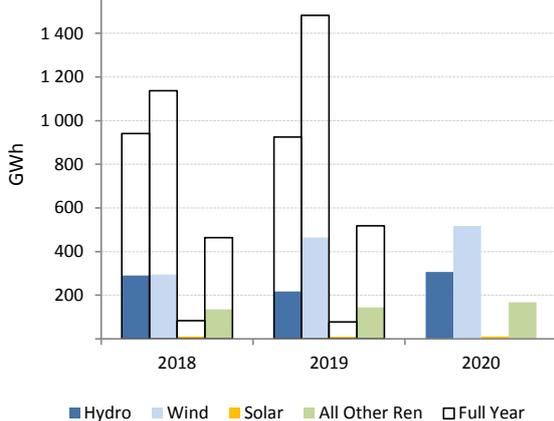
Electricity Production



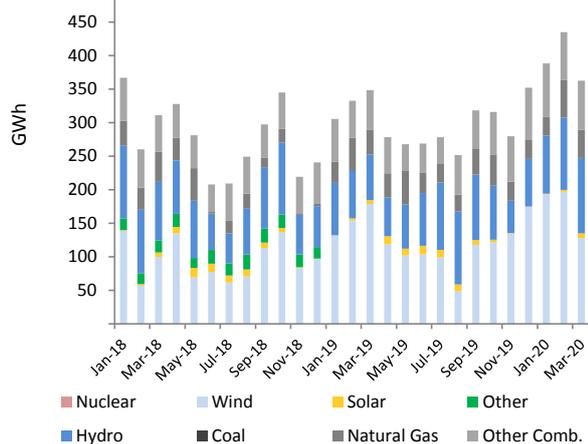
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel

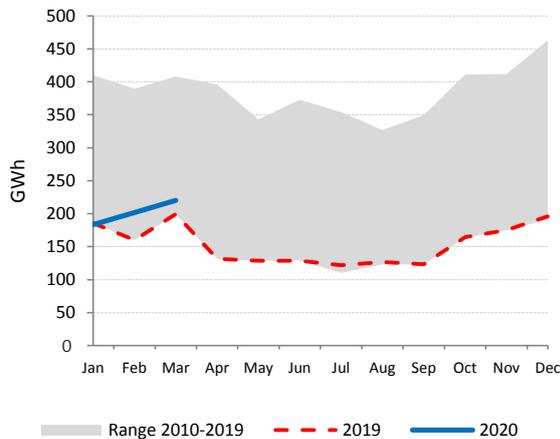


# LUXEMBOURG

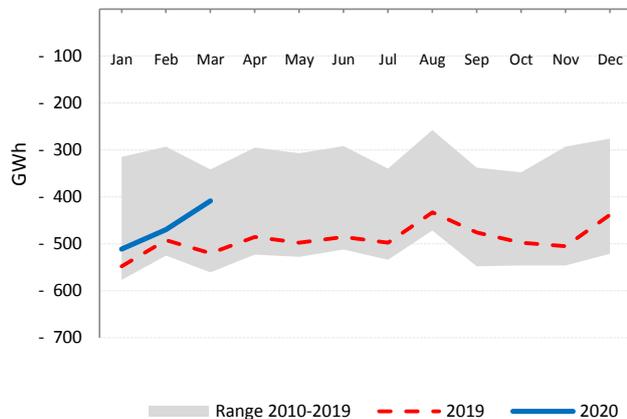
|                               | Mar 2020   |                     |                     |              | Year-to-Date |              |                     | 2019         |              |
|-------------------------------|------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|--------------|--------------|
|                               | GWh        | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh          | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>52</b>  | <b>23.8%</b>        | <b>-4.0%</b>        | <b>23.4%</b> | <b>160</b>   | <b>136</b>   | <b>17.7%</b>        | <b>515</b>   | <b>28.0%</b> |
| Coal                          | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Oil                           | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Natural Gas                   | 16         | -23.8%              | 0.0%                | 7.2%         | 49           | 67           | -26.3%              | 171          | 9.3%         |
| Combustible Renewables        | 32         | 84.5%               | 1.0%                | 14.7%        | 96           | 54           | 77.5%               | 270          | 14.7%        |
| Other Combustibles            | 3          | 0.0%                | -43.0%              | 1.5%         | 15           | 15           | -0.8%               | 75           | 4.1%         |
| <b>Nuclear</b>                | <b>-</b>   | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>     | <b>-</b>     |
| <b>Hydro</b>                  | <b>101</b> | <b>-8.5%</b>        | <b>4.1%</b>         | <b>46.0%</b> | <b>292</b>   | <b>303</b>   | <b>-3.8%</b>        | <b>938</b>   | <b>51.0%</b> |
| <b>Wind</b>                   | <b>60</b>  | <b>57.3%</b>        | <b>28.0%</b>        | <b>27.1%</b> | <b>138</b>   | <b>88</b>    | <b>57.5%</b>        | <b>267</b>   | <b>14.5%</b> |
| <b>Solar</b>                  | <b>8</b>   | <b>-16.0%</b>       | <b>78.0%</b>        | <b>3.5%</b>  | <b>15</b>    | <b>18</b>    | <b>-15.2%</b>       | <b>121</b>   | <b>6.5%</b>  |
| Geothermal                    | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Other Renewables              | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| Non-Specified                 | -          | -                   | -                   | -            | -            | -            | -                   | -            | -            |
| <b>RENEWABLES</b>             | <b>201</b> | <b>14.7%</b>        | <b>11.5%</b>        | <b>91.3%</b> | <b>541</b>   | <b>463</b>   | <b>16.9%</b>        | <b>1 595</b> | <b>86.7%</b> |
| <b>NON-RENEWABLES</b>         | <b>19</b>  | <b>-20.5%</b>       | <b>-11.6%</b>       | <b>8.7%</b>  | <b>65</b>    | <b>82</b>    | <b>-21.5%</b>       | <b>245</b>   | <b>13.3%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>220</b> | <b>10.5%</b>        | <b>9.0%</b>         |              | <b>606</b>   | <b>545</b>   | <b>11.1%</b>        | <b>1 841</b> |              |
| + Imports                     | 493        | -21.6%              | -10.9%              |              | 1 639        | 1 890        | -13.3%              | 6 818        |              |
| - Exports                     | 85         | -22.2%              | 0.9%                |              | 249          | 329          | -24.5%              | 939          |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>629</b> | <b>-12.6%</b>       | <b>-6.4%</b>        |              | <b>1 996</b> | <b>2 106</b> | <b>-5.2%</b>        | <b>7 719</b> |              |
| - Used for pumped storage     | 120        | -9.4%               | 2.4%                |              | 352          | 373          | -5.8%               | 1 203        |              |
| - T&D Losses                  | 12         | -13.3%              | -8.1%               |              | 39           | 41           | -5.2%               | 153          |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>497</b> | <b>-13.3%</b>       | <b>-8.2%</b>        |              | <b>1 606</b> | <b>1 692</b> | <b>-5.1%</b>        | <b>6 363</b> |              |

<sup>1</sup> current month to month of last year change  
<sup>2</sup> month-to-month change  
<sup>3</sup> year-to-date compared to same period last year

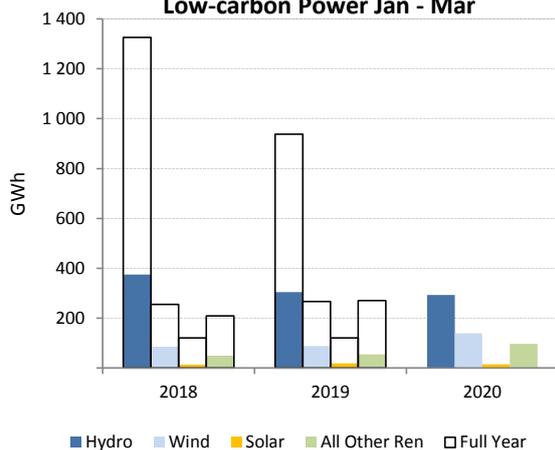
Electricity Production



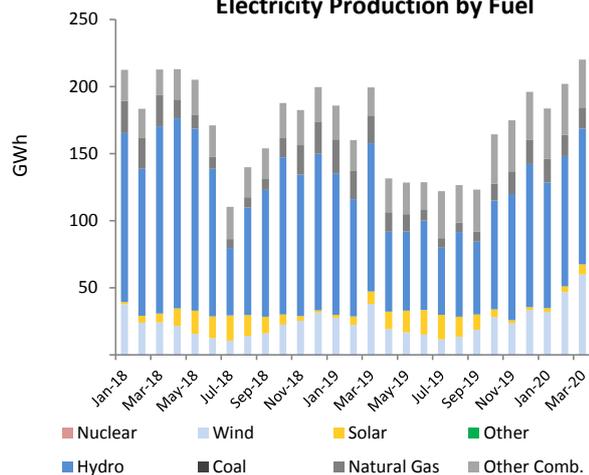
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel

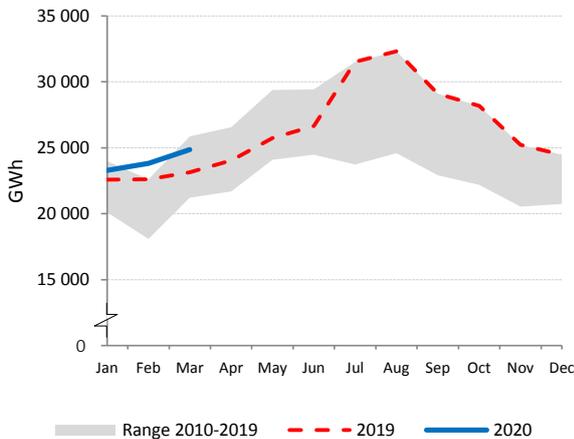


# MEXICO

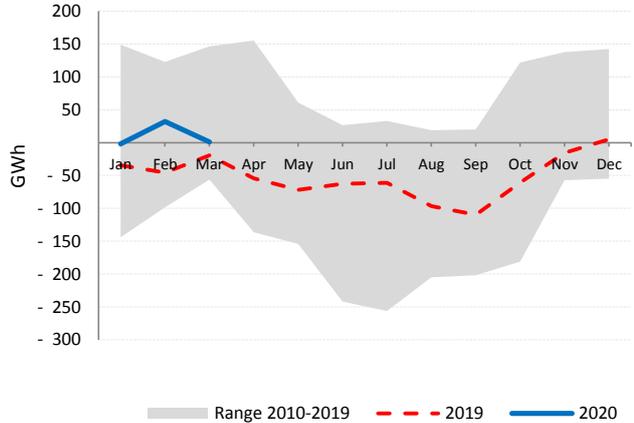
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>18 969</b> | <b>7.3%</b>         | <b>3.0%</b>         | <b>76.3%</b> | <b>55 380</b> | <b>53 483</b> | <b>3.5%</b>         | <b>251 457</b> | <b>79.7%</b> |
| Coal                          | 1 922         | 7.3%                | 3.0%                | 7.7%         | 5 612         | 5 419         | 3.5%                | 25 480         | 8.1%         |
| Oil                           | 2 464         | 7.3%                | 3.0%                | 9.9%         | 7 194         | 6 947         | 3.5%                | 32 664         | 10.4%        |
| Natural Gas                   | 14 367        | 7.3%                | 3.0%                | 57.8%        | 41 944        | 40 508        | 3.5%                | 190 453        | 60.4%        |
| Combustible Renewables        | 180           | 7.3%                | 3.0%                | 0.7%         | 525           | 507           | 3.5%                | 2 384          | 0.8%         |
| Other Combustibles            | 36            | 7.3%                | 3.0%                | 0.1%         | 105           | 101           | 3.5%                | 477            | 0.2%         |
| <b>Nuclear</b>                | <b>1 142</b>  | <b>15.3%</b>        | <b>-1.3%</b>        | <b>4.6%</b>  | <b>3 389</b>  | <b>2 426</b>  | <b>39.7%</b>        | <b>11 068</b>  | <b>3.5%</b>  |
| <b>Hydro</b>                  | <b>1 700</b>  | <b>-7.9%</b>        | <b>45.5%</b>        | <b>6.8%</b>  | <b>4 073</b>  | <b>5 208</b>  | <b>-21.8%</b>       | <b>23 912</b>  | <b>7.6%</b>  |
| <b>Wind</b>                   | <b>1 699</b>  | <b>0.4%</b>         | <b>-9.4%</b>        | <b>6.8%</b>  | <b>5 483</b>  | <b>4 571</b>  | <b>20.0%</b>        | <b>16 725</b>  | <b>5.3%</b>  |
| <b>Solar<sup>5</sup></b>      | <b>935</b>    | <b>91.3%</b>        | <b>19.2%</b>        | <b>3.8%</b>  | <b>2 377</b>  | <b>1 297</b>  | <b>83.3%</b>        | <b>7 207</b>   | <b>2.3%</b>  |
| Geothermal                    | 409           | -8.4%               | -1.2%               | 1.6%         | 1 250         | 1 347         | -7.2%               | 5 167          | 1.6%         |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                 | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>             | <b>4 922</b>  | <b>6.1%</b>         | <b>11.5%</b>        | <b>19.8%</b> | <b>13 709</b> | <b>12 929</b> | <b>6.0%</b>         | <b>55 395</b>  | <b>17.6%</b> |
| <b>NON-RENEWABLES</b>         | <b>19 932</b> | <b>7.7%</b>         | <b>2.8%</b>         | <b>80.2%</b> | <b>58 243</b> | <b>55 402</b> | <b>5.1%</b>         | <b>260 141</b> | <b>82.4%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>24 854</b> | <b>7.4%</b>         | <b>4.4%</b>         |              | <b>71 952</b> | <b>68 331</b> | <b>5.3%</b>         | <b>315 537</b> |              |
| + Imports                     | 58            | -62.5%              | 38.6%               |              | 140           | 485           | -71.2%              | 1 590          |              |
| - Exports                     | 59            | -56.2%              | -20.3%              |              | 171           | 386           | -55.7%              | 962            |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>24 853</b> | <b>7.3%</b>         | <b>4.5%</b>         |              | <b>71 921</b> | <b>68 430</b> | <b>5.1%</b>         | <b>316 164</b> |              |
| - Used for pumped storage     | -             | -                   | -                   |              | -             | -             | -                   | -              |              |
| - T&D Losses <sup>4</sup>     | 3 592         | 6.9%                | 4.5%                |              | 10 394        | 9 922         | 4.8%                | 42 638         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>21 261</b> | <b>7.4%</b>         | <b>4.5%</b>         |              | <b>61 526</b> | <b>58 508</b> | <b>5.2%</b>         | <b>273 526</b> |              |

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

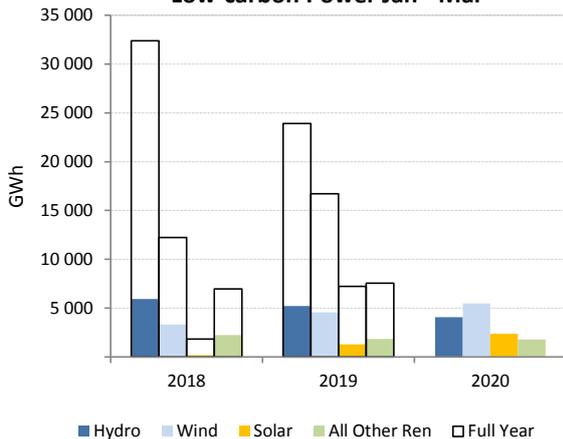
**Electricity Production**



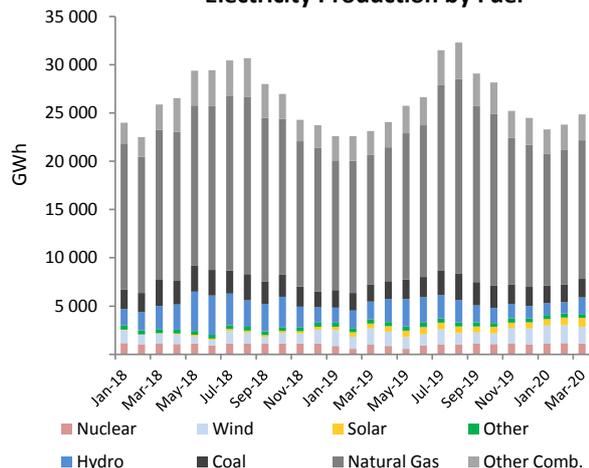
**Net Electricity Exports**



**Low-carbon Power Jan - Mar**



**Electricity Production by Fuel**

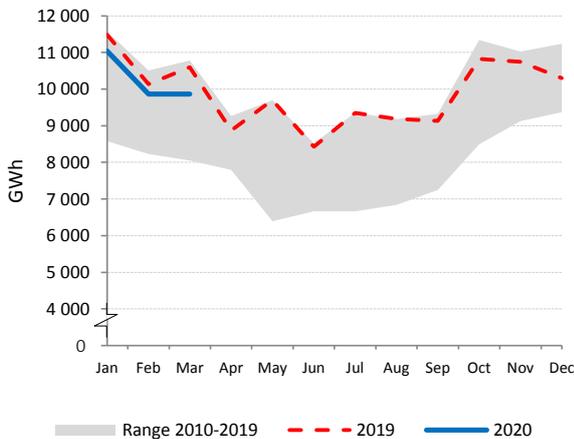


# NETHERLANDS

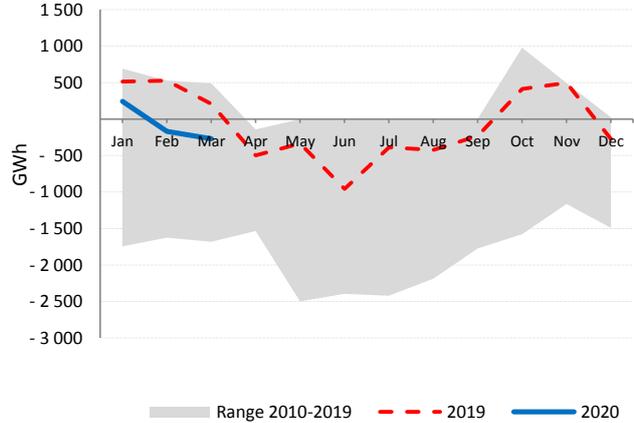
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>7 370</b>  | <b>-13.6%</b>       | <b>-3.6%</b>        | <b>74.7%</b> | <b>24 226</b> | <b>27 168</b> | <b>-10.8%</b>       | <b>97 170</b>  | <b>81.8%</b> |
| Coal                          | 863           | -52.8%              | 9.7%                | 8.7%         | 2 508         | 6 514         | -61.5%              | 17 787         | 15.0%        |
| Oil                           | 338           | 16.1%               | 3.7%                | 3.4%         | 970           | 819           | 18.4%               | 3 185          | 2.7%         |
| Natural Gas                   | 5 324         | -8.1%               | -8.2%               | 54.0%        | 18 507        | 18 040        | 2.6%                | 69 110         | 58.2%        |
| Combustible Renewables        | 689           | 60.0%               | 23.0%               | 7.0%         | 1 739         | 1 177         | 47.7%               | 5 033          | 4.2%         |
| Other Combustibles            | 154           | -14.2%              | -9.6%               | 1.6%         | 502           | 618           | -18.7%              | 2 056          | 1.7%         |
| <b>Nuclear</b>                | <b>369</b>    | <b>0.1%</b>         | <b>9.0%</b>         | <b>3.7%</b>  | <b>1 076</b>  | <b>991</b>    | <b>8.6%</b>         | <b>3 792</b>   | <b>3.2%</b>  |
| Hydro                         | 5             | -35.3%              | 139.1%              | 0.0%         | 16            | 22            | -30.3%              | 62             | 0.1%         |
| Wind                          | 1 201         | -2.4%               | -23.3%              | 12.2%        | 4 045         | 3 146         | 28.6%               | 9 909          | 8.3%         |
| Solar                         | 916           | 100.9%              | 201.4%              | 9.3%         | 1 382         | 864           | 60.0%               | 7 717          | 6.5%         |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                 | 9             | -                   | -                   | 0.1%         | 26            | 26            | -                   | 103            | 0.1%         |
| <b>RENEWABLES</b>             | <b>2 811</b>  | <b>32.3%</b>        | <b>15.6%</b>        | <b>28.5%</b> | <b>7 182</b>  | <b>5 209</b>  | <b>37.9%</b>        | <b>22 721</b>  | <b>19.1%</b> |
| <b>NON-RENEWABLES</b>         | <b>7 057</b>  | <b>-16.7%</b>       | <b>-5.0%</b>        | <b>71.5%</b> | <b>23 589</b> | <b>27 008</b> | <b>-12.7%</b>       | <b>96 033</b>  | <b>80.9%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>9 869</b>  | <b>-6.9%</b>        | <b>0.1%</b>         |              | <b>30 771</b> | <b>32 217</b> | <b>-4.5%</b>        | <b>118 754</b> |              |
| + Imports                     | 2 010         | 20.6%               | 21.5%               |              | 5 395         | 4 596         | 17.4%               | 20 219         |              |
| - Exports                     | 1 739         | -7.2%               | 17.0%               |              | 5 199         | 5 846         | -11.1%              | 19 269         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>10 140</b> | <b>-2.4%</b>        | <b>1.1%</b>         |              | <b>30 968</b> | <b>30 968</b> | <b>0.0%</b>         | <b>119 704</b> |              |
| - Used for pumped storage     | -             | -                   | -                   |              | -             | -             | -                   | -              |              |
| - T&D Losses <sup>4</sup>     | 417           | -1.5%               | 2.9%                |              | 1 276         | 1 295         | -1.5%               | 4 893          |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>9 723</b>  | <b>-2.4%</b>        | <b>1.0%</b>         |              | <b>29 692</b> | <b>29 672</b> | <b>0.1%</b>         | <b>114 811</b> |              |

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

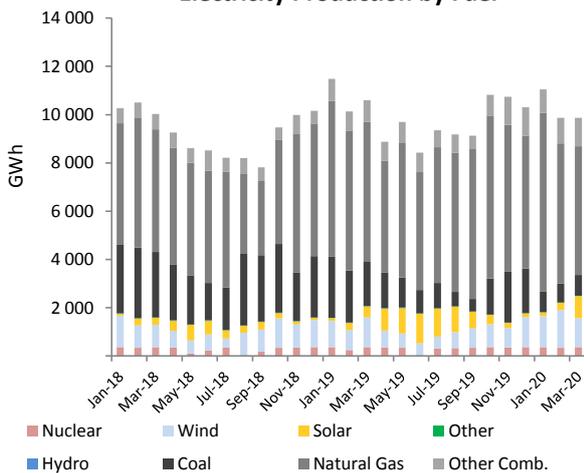
**Electricity Production**



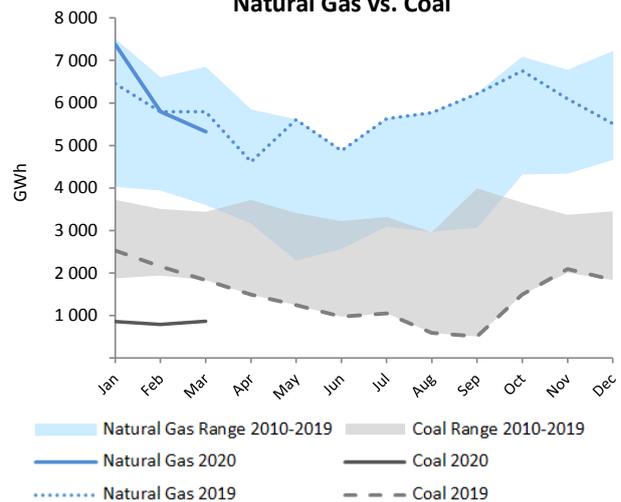
**Net Electricity Exports**



**Electricity Production by Fuel**



**Natural Gas vs. Coal**



# NEW ZEALAND

|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>577</b>   | <b>-32.2%</b>       | <b>-2.6%</b>        | <b>17.3%</b> | <b>1 726</b>  | <b>2 194</b>  | <b>-21.3%</b>       | <b>8 224</b>  | <b>19.0%</b> |
| Coal                          | 88           | -72.6%              | 16.8%               | 2.6%         | 220           | 682           | -67.8%              | 2 130         | 4.9%         |
| Oil                           | 0            | -49.5%              | -13.8%              | 0.0%         | 1             | 1             | -43.7%              | 3             | 0.0%         |
| Natural Gas                   | 433          | -8.3%               | -7.3%               | 13.0%        | 1 347         | 1 353         | -0.4%               | 5 487         | 12.7%        |
| Combustible Renewables        | 56           | -3.3%               | 12.4%               | 1.7%         | 158           | 158           | -0.1%               | 604           | 1.4%         |
| Other Combustibles            | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Nuclear</b>                | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Hydro</b>                  | <b>1 974</b> | <b>4.3%</b>         | <b>0.1%</b>         | <b>59.3%</b> | <b>6 119</b>  | <b>5 734</b>  | <b>6.7%</b>         | <b>25 332</b> | <b>58.4%</b> |
| <b>Wind</b>                   | <b>176</b>   | <b>34.7%</b>        | <b>7.2%</b>         | <b>5.3%</b>  | <b>536</b>    | <b>489</b>    | <b>9.6%</b>         | <b>2 233</b>  | <b>5.2%</b>  |
| <b>Solar</b>                  | <b>12</b>    | <b>24.6%</b>        | <b>2.0%</b>         | <b>0.4%</b>  | <b>36</b>     | <b>28</b>     | <b>29.0%</b>        | <b>124</b>    | <b>0.3%</b>  |
| <b>Geothermal</b>             | <b>587</b>   | <b>-4.6%</b>        | <b>4.6%</b>         | <b>17.6%</b> | <b>1 725</b>  | <b>1 788</b>  | <b>-3.6%</b>        | <b>7 388</b>  | <b>17.0%</b> |
| <b>Other Renewables</b>       | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Non-Specified</b>          | <b>4</b>     | <b>-</b>            | <b>-</b>            | <b>0.1%</b>  | <b>12</b>     | <b>12</b>     | <b>-</b>            | <b>49</b>     | <b>0.1%</b>  |
| <b>RENEWABLES</b>             | <b>2 806</b> | <b>3.6%</b>         | <b>1.7%</b>         | <b>84.2%</b> | <b>8 574</b>  | <b>8 198</b>  | <b>4.6%</b>         | <b>35 681</b> | <b>82.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>526</b>   | <b>-34.1%</b>       | <b>-3.9%</b>        | <b>15.8%</b> | <b>1 580</b>  | <b>2 048</b>  | <b>-22.8%</b>       | <b>7 670</b>  | <b>17.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>3 331</b> | <b>-5.0%</b>        | <b>0.7%</b>         |              | <b>10 154</b> | <b>10 246</b> | <b>-0.9%</b>        | <b>43 351</b> |              |
| + Imports                     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - Exports                     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>3 331</b> | <b>-5.0%</b>        | <b>0.7%</b>         |              | <b>10 154</b> | <b>10 246</b> | <b>-0.9%</b>        | <b>43 351</b> |              |
| - Used for pumped storage     | -            | -                   | -                   |              | -             | -             | -                   | -             |              |
| - T&D Losses                  | 229          | -5.0%               | 0.7%                |              | 697           | 703           | -0.9%               | 2 976         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>3 102</b> | <b>-5.0%</b>        | <b>0.7%</b>         |              | <b>9 457</b>  | <b>9 543</b>  | <b>-0.9%</b>        | <b>40 375</b> |              |

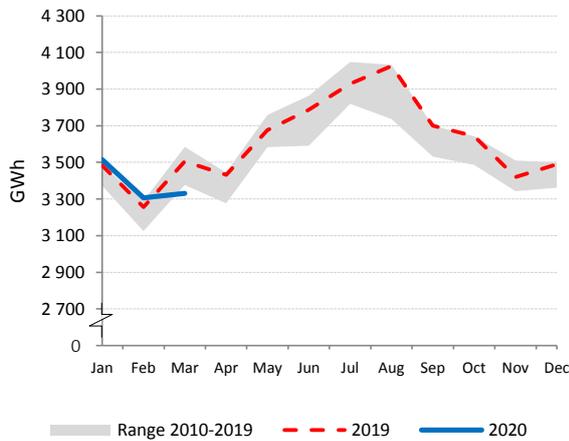
<sup>1</sup> current month to month of last year change

March 2020 is estimated by the IEA Secretariat

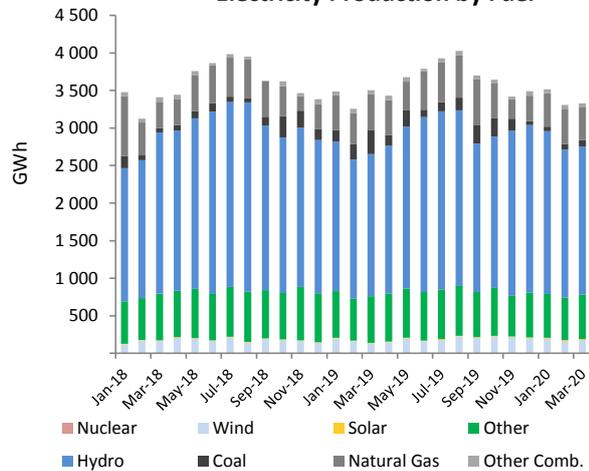
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

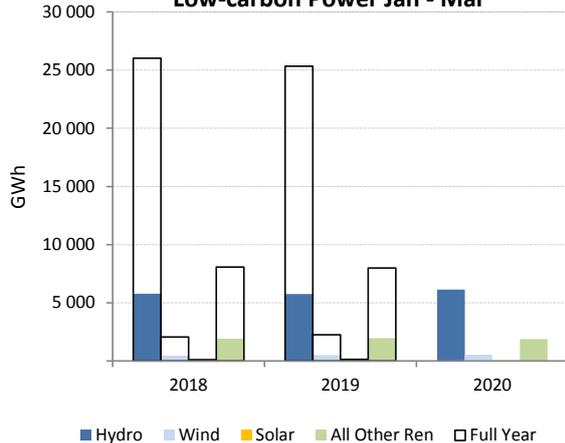
Electricity Production



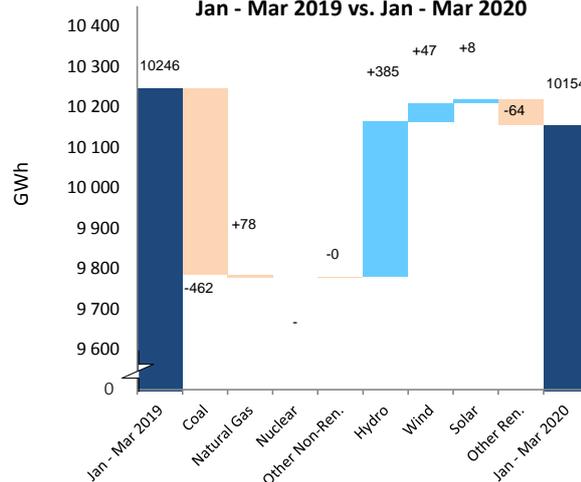
Electricity Production by Fuel



Low-carbon Power Jan - Mar



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



# NORWAY

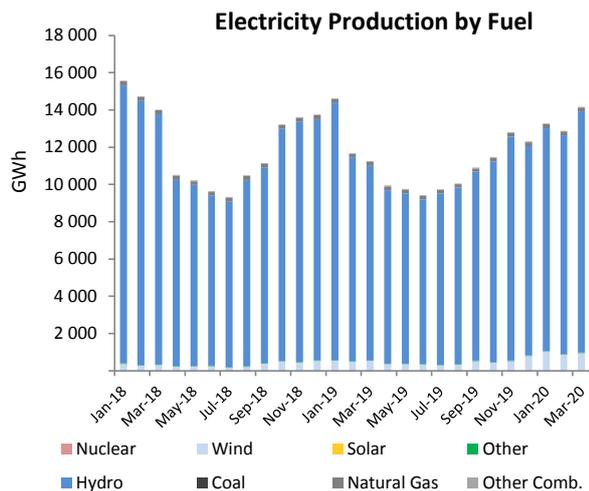
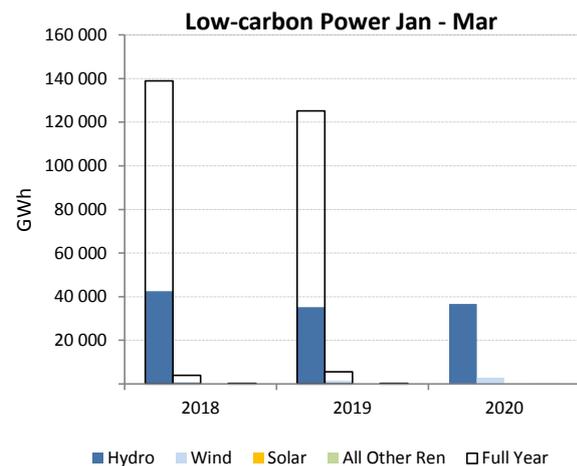
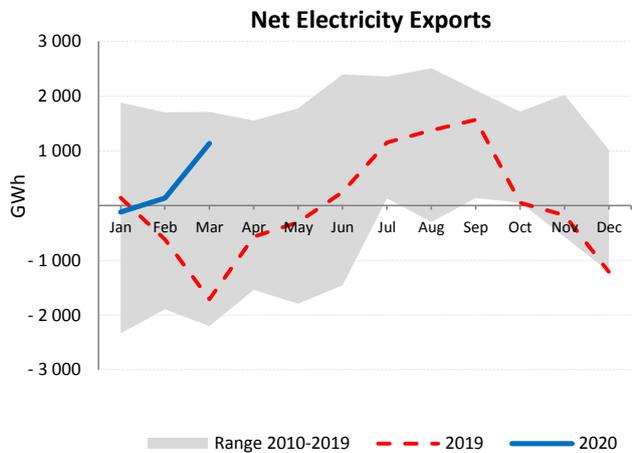
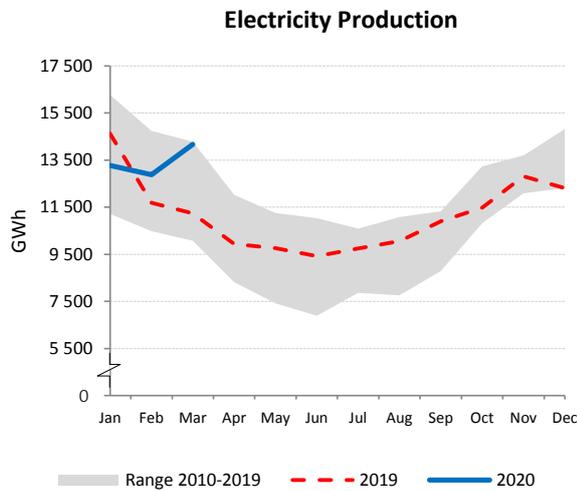
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>243</b>    | <b>-4.7%</b>        | <b>3.2%</b>         | <b>1.7%</b>  | <b>729</b>    | <b>705</b>    | <b>3.4%</b>         | <b>2 836</b>   | <b>2.1%</b>  |
| Coal <sup>4</sup>             | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Oil <sup>4</sup>              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Natural Gas                   | 204           | -4.8%               | 2.9%                | 1.4%         | 614           | 586           | 4.7%                | 2 379          | 1.8%         |
| Combustible Renewables        | 21            | 3.0%                | 4.8%                | 0.2%         | 62            | 61            | 1.8%                | 256            | 0.2%         |
| Other Combustibles            | 17            | -11.8%              | 4.7%                | 0.1%         | 52            | 57            | -7.7%               | 202            | 0.2%         |
| <b>Nuclear</b>                | <b>-</b>      | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>      | <b>-</b>      | <b>-</b>            | <b>-</b>       | <b>-</b>     |
| <b>Hydro</b>                  | <b>12 955</b> | <b>24.2%</b>        | <b>10.2%</b>        | <b>91.4%</b> | <b>36 678</b> | <b>35 198</b> | <b>4.2%</b>         | <b>125 258</b> | <b>93.5%</b> |
| <b>Wind</b>                   | <b>943</b>    | <b>78.9%</b>        | <b>10.4%</b>        | <b>6.7%</b>  | <b>2 821</b>  | <b>1 571</b>  | <b>79.6%</b>        | <b>5 536</b>   | <b>4.1%</b>  |
| Solar                         | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Non-Specified</b>          | <b>28</b>     | <b>-</b>            | <b>-</b>            | <b>0.2%</b>  | <b>84</b>     | <b>84</b>     | <b>-</b>            | <b>334</b>     | <b>0.2%</b>  |
| <b>RENEWABLES</b>             | <b>13 919</b> | <b>26.8%</b>        | <b>10.2%</b>        | <b>98.2%</b> | <b>39 561</b> | <b>36 830</b> | <b>7.4%</b>         | <b>131 050</b> | <b>97.8%</b> |
| <b>NON-RENEWABLES</b>         | <b>250</b>    | <b>-4.8%</b>        | <b>2.7%</b>         | <b>1.8%</b>  | <b>750</b>    | <b>727</b>    | <b>3.2%</b>         | <b>2 915</b>   | <b>2.2%</b>  |
| <b>TOTAL NET PRODUCTION</b>   | <b>14 169</b> | <b>26.0%</b>        | <b>10.1%</b>        |              | <b>40 311</b> | <b>37 557</b> | <b>7.3%</b>         | <b>133 965</b> |              |
| + Imports                     | 598           | -71.4%              | -37.0%              |              | 2 614         | 4 435         | -41.0%              | 12 353         |              |
| - Exports                     | 1 735         | 357.8%              | 59.4%               |              | 3 771         | 2 245         | 67.9%               | 12 309         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>13 031</b> | <b>0.6%</b>         | <b>2.3%</b>         |              | <b>39 155</b> | <b>39 746</b> | <b>-1.5%</b>        | <b>134 009</b> |              |
| - Used for pumped storage     | 10            | 3.3%                | -58.1%              |              | 122           | 30            | 301.7%              | 1 057          |              |
| - T&D Losses                  | 873           | 25.9%               | 10.1%               |              | 2 484         | 2 315         | 7.3%                | 8 257          |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>12 148</b> | <b>-0.8%</b>        | <b>1.9%</b>         |              | <b>36 548</b> | <b>37 400</b> | <b>-2.3%</b>        | <b>124 695</b> |              |

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

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

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

<sup>3</sup> year-to-date compared to same period last year



# POLAND

|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>10 459</b> | <b>-3.0%</b>        | <b>3.5%</b>         | <b>84.3%</b> | <b>31 965</b> | <b>34 239</b> | <b>-6.6%</b>        | <b>131 630</b> | <b>87.9%</b> |
| Coal                          | 8 199         | -6.7%               | 2.3%                | 66.1%        | 25 340        | 29 173        | -10.8%              | 108 042        | 72.2%        |
| Oil <sup>4</sup>              | -             | -                   | -                   | -            | -             | -             | -                   | 2 628          | 1.8%         |
| Natural Gas                   | 1 284         | 10.3%               | 9.3%                | 10.4%        | 3 731         | 3 316         | 12.5%               | 13 718         | 9.2%         |
| Combustible Renewables        | 689           | 19.0%               | 10.6%               | 5.6%         | 1 995         | 1 665         | 19.8%               | 6 883          | 4.6%         |
| Other Combustibles            | 286           | 867.0%              | -3.4%               | 2.3%         | 899           | 85            | 959.7%              | 360            | 0.2%         |
| Nuclear                       | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Hydro                         | 291           | -13.5%              | -4.6%               | 2.3%         | 833           | 850           | -2.0%               | 2 635          | 1.8%         |
| Wind                          | 1 472         | -17.0%              | -31.1%              | 11.9%        | 5 469         | 4 825         | 13.4%               | 14 685         | 9.8%         |
| Solar                         | 183           | 345.3%              | 289.9%              | 1.5%         | 255           | 71            | 257.8%              | 728            | 0.5%         |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                 | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>             | <b>2 635</b>  | <b>-3.5%</b>        | <b>-15.3%</b>       | <b>21.2%</b> | <b>8 552</b>  | <b>7 411</b>  | <b>15.4%</b>        | <b>24 929</b>  | <b>16.7%</b> |
| <b>NON-RENEWABLES</b>         | <b>9 769</b>  | <b>-4.3%</b>        | <b>3.0%</b>         | <b>78.8%</b> | <b>29 970</b> | <b>32 574</b> | <b>-8.0%</b>        | <b>124 748</b> | <b>83.3%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>12 404</b> | <b>-4.1%</b>        | <b>-1.5%</b>        |              | <b>38 522</b> | <b>39 985</b> | <b>-3.7%</b>        | <b>149 677</b> |              |
| + Imports                     | 1 990         | 32.8%               | 27.0%               |              | 5 430         | 3 942         | 37.8%               | 17 868         |              |
| - Exports                     | 818           | 51.1%               | 13.5%               |              | 2 673         | 2 191         | 22.0%               | 7 245          |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>13 576</b> | <b>-2.3%</b>        | <b>1.0%</b>         |              | <b>41 279</b> | <b>41 736</b> | <b>-1.1%</b>        | <b>160 300</b> |              |
| - Used for pumped storage     | 100           | -10.0%              | -21.1%              |              | 347           | 260           | 33.4%               | 1 034          |              |
| - T&D Losses                  | 1 279         | 27.5%               | 64.8%               |              | 3 066         | 2 366         | 29.6%               | 10 969         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>12 197</b> | <b>-4.5%</b>        | <b>-2.7%</b>        |              | <b>37 866</b> | <b>39 110</b> | <b>-3.2%</b>        | <b>148 298</b> |              |

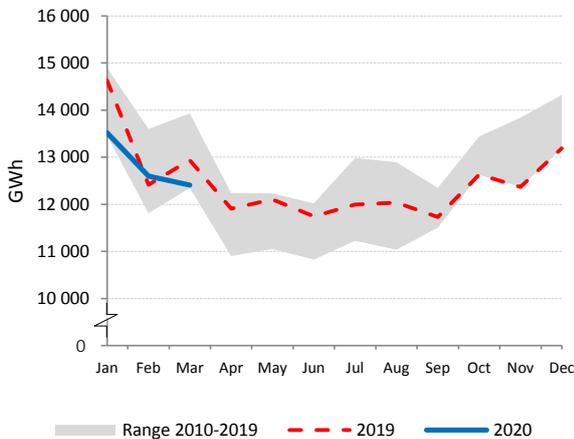
<sup>1</sup> current month to month of last year change

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

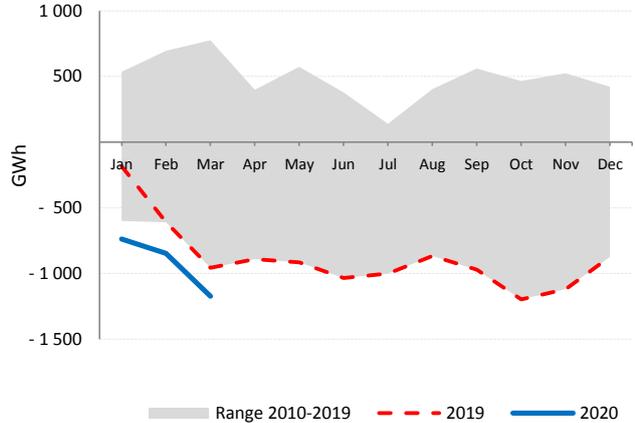
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

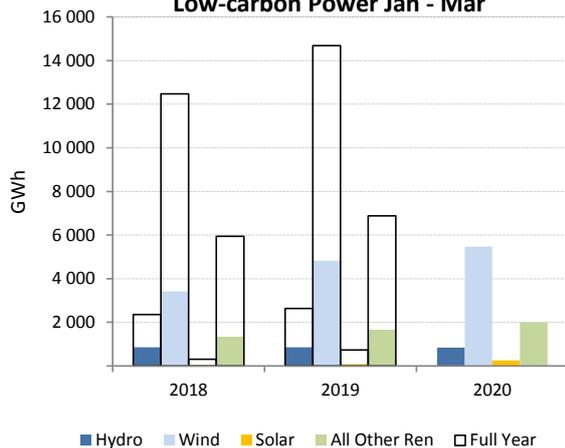
Electricity Production



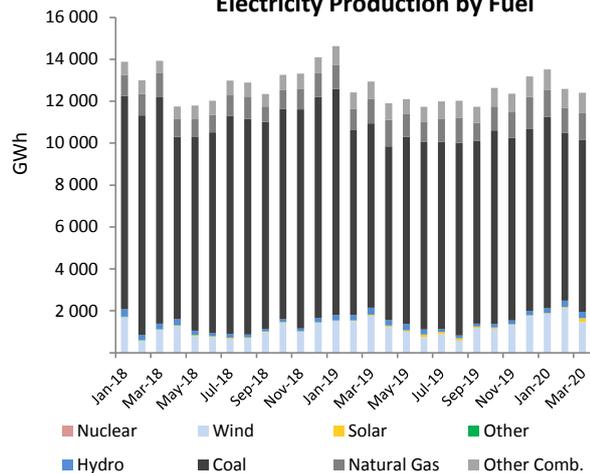
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# PORTUGAL

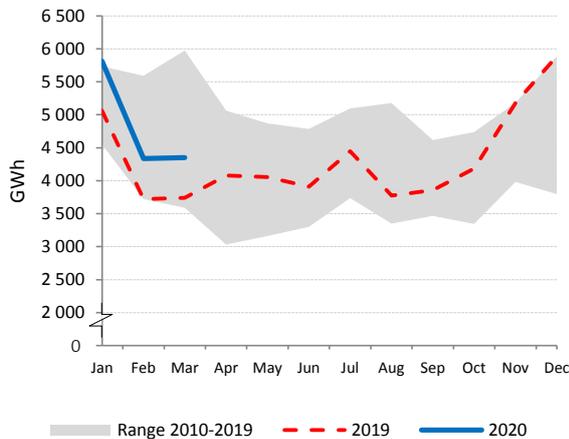
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 533</b> | <b>-6.3%</b>        | <b>-9.9%</b>        | <b>35.2%</b> | <b>5 481</b>  | <b>6 040</b>  | <b>-9.3%</b>        | <b>26 672</b> | <b>51.4%</b> |
| Coal                          | 7            | -98.8%              | -63.3%              | 0.2%         | 146           | 2 283         | -93.6%              | 5 283         | 10.2%        |
| Oil                           | 97           | 26.7%               | 12.7%               | 2.2%         | 283           | 236           | 19.7%               | 1 107         | 2.1%         |
| Natural Gas                   | 1 104        | 63.1%               | -14.9%              | 25.4%        | 4 113         | 2 729         | 50.7%               | 16 891        | 32.5%        |
| Combustible Renewables        | 302          | 18.0%               | 7.5%                | 6.9%         | 877           | 730           | 20.1%               | 3 150         | 6.1%         |
| Other Combustibles            | 23           | 19.3%               | 26.2%               | 0.5%         | 63            | 62            | 1.4%                | 242           | 0.5%         |
| Nuclear                       | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Hydro                         | 1 370        | 56.3%               | -18.7%              | 31.5%        | 5 198         | 2 723         | 90.9%               | 10 157        | 19.6%        |
| Wind                          | 1 292        | 18.3%               | 58.2%               | 29.7%        | 3 432         | 3 442         | -0.3%               | 13 551        | 26.1%        |
| Solar                         | 137          | 18.8%               | 19.8%               | 3.2%         | 337           | 267           | 26.0%               | 1 332         | 2.6%         |
| Geothermal                    | 18           | -1.4%               | 6.3%                | 0.4%         | 52            | 51            | 1.7%                | 191           | 0.4%         |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>3 119</b> | <b>32.3%</b>        | <b>7.0%</b>         | <b>71.7%</b> | <b>9 895</b>  | <b>7 212</b>  | <b>37.2%</b>        | <b>28 382</b> | <b>54.7%</b> |
| <b>NON-RENEWABLES</b>         | <b>1 231</b> | <b>-10.9%</b>       | <b>-13.4%</b>       | <b>28.3%</b> | <b>4 604</b>  | <b>5 311</b>  | <b>-13.3%</b>       | <b>23 522</b> | <b>45.3%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>4 350</b> | <b>16.3%</b>        | <b>0.3%</b>         |              | <b>14 499</b> | <b>12 523</b> | <b>15.8%</b>        | <b>51 904</b> |              |
| + Imports                     | 698          | -27.3%              | 10.0%               |              | 1 800         | 2 480         | -27.4%              | 8 098         |              |
| - Exports                     | 470          | 175.0%              | -3.7%               |              | 1 922         | 829           | 131.8%              | 4 698         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>4 578</b> | <b>1.1%</b>         | <b>2.1%</b>         |              | <b>14 378</b> | <b>14 174</b> | <b>1.4%</b>         | <b>55 304</b> |              |
| - Used for pumped storage     | 199          | 41.8%               | 45.7%               |              | 542           | 430           | 26.0%               | 1 848         |              |
| - T&D Losses                  | 450          | 8.7%                | 1.1%                |              | 1 417         | 1 293         | 9.6%                | 5 027         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>3 928</b> | <b>-1.2%</b>        | <b>0.7%</b>         |              | <b>12 419</b> | <b>12 451</b> | <b>-0.3%</b>        | <b>48 428</b> |              |

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

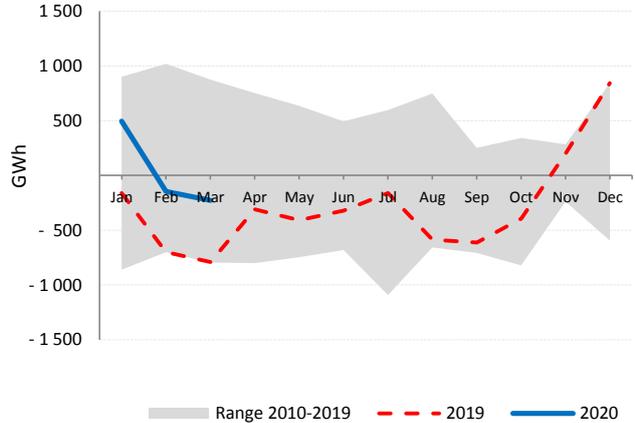
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

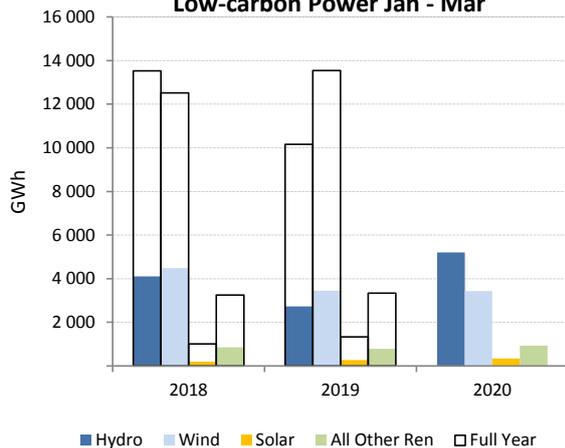
Electricity Production



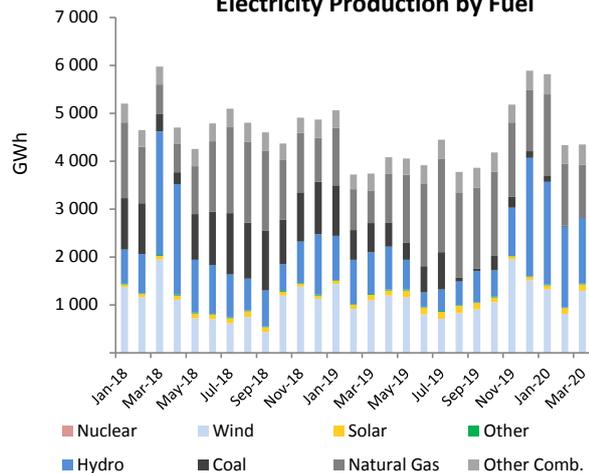
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel

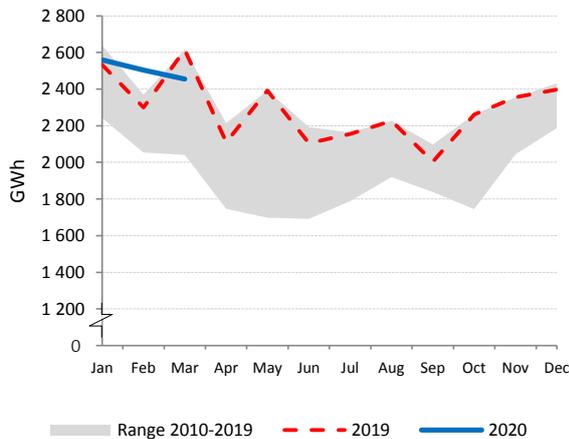


# SLOVAK REPUBLIC

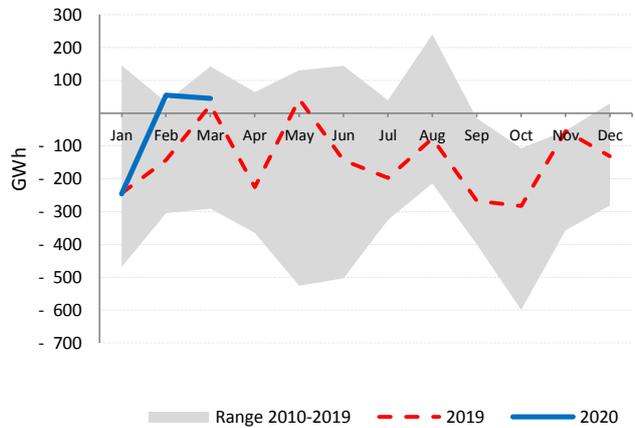
|                               | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>665</b>   | <b>-12.8%</b>       | <b>-7.0%</b>        | <b>27.1%</b> | <b>2 279</b> | <b>2 259</b> | <b>0.9%</b>         | <b>7 974</b>  | <b>29.0%</b> |
| Coal                          | 217          | -33.2%              | -4.1%               | 8.9%         | 774          | 955          | -19.0%              | 2 941         | 10.7%        |
| Oil                           | 38           | -                   | 23.3%               | 1.5%         | 100          | 103          | -3.0%               | 402           | 1.5%         |
| Natural Gas                   | 319          | 9.5%                | -10.2%              | 13.0%        | 1 120        | 888          | 26.2%               | 3 468         | 12.6%        |
| Combustible Renewables        | 89           | -15.9%              | -10.8%              | 3.6%         | 281          | 311          | -9.4%               | 1 148         | 4.2%         |
| Other Combustibles            | 1            | -5.2%               | -18.1%              | 0.0%         | 4            | 4            | 9.8%                | 15            | 0.1%         |
| <b>Nuclear</b>                | <b>1 253</b> | <b>1.9%</b>         | <b>-</b>            | <b>51.0%</b> | <b>3 850</b> | <b>3 759</b> | <b>2.4%</b>         | <b>14 382</b> | <b>52.4%</b> |
| <b>Hydro</b>                  | <b>470</b>   | <b>-16.7%</b>       | <b>-4.0%</b>        | <b>19.1%</b> | <b>1 247</b> | <b>1 304</b> | <b>-4.4%</b>        | <b>4 418</b>  | <b>16.1%</b> |
| Wind                          | -            | -                   | -                   | -            | -            | -            | -                   | 4             | 0.0%         |
| Solar                         | 63           | 12.5%               | 53.7%               | 2.6%         | 123          | 109          | 12.8%               | 588           | 2.1%         |
| Geothermal                    | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified                 | 5            | -                   | -                   | 0.2%         | 20           | 18           | 10.0%               | 89            | 0.3%         |
| <b>RENEWABLES</b>             | <b>622</b>   | <b>-14.3%</b>       | <b>-1.4%</b>        | <b>25.3%</b> | <b>1 651</b> | <b>1 724</b> | <b>-4.2%</b>        | <b>6 158</b>  | <b>22.4%</b> |
| <b>NON-RENEWABLES</b>         | <b>1 834</b> | <b>-3.0%</b>        | <b>-2.1%</b>        | <b>74.7%</b> | <b>5 867</b> | <b>5 726</b> | <b>2.5%</b>         | <b>21 297</b> | <b>77.6%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>2 456</b> | <b>-6.1%</b>        | <b>-1.9%</b>        |              | <b>7 518</b> | <b>7 449</b> | <b>0.9%</b>         | <b>27 455</b> |              |
| + Imports                     | 996          | 0.6%                | -26.0%              |              | 4 183        | 3 732        | 12.1%               | 13 537        |              |
| - Exports                     | 1 041        | 2.7%                | -25.7%              |              | 4 037        | 3 369        | 19.8%               | 11 837        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>2 411</b> | <b>-7.0%</b>        | <b>-1.5%</b>        |              | <b>7 664</b> | <b>7 813</b> | <b>-1.9%</b>        | <b>29 155</b> |              |
| - Used for pumped storage     | 26           | -13.3%              | -                   |              | 90           | 84           | 7.2%                | 297           |              |
| - T&D Losses <sup>4</sup>     | 114          | -4.3%               | -10.3%              |              | 388          | 370          | 4.6%                | 1 358         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>2 270</b> | <b>-7.1%</b>        | <b>-1.1%</b>        |              | <b>7 187</b> | <b>7 359</b> | <b>-2.3%</b>        | <b>27 500</b> |              |

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

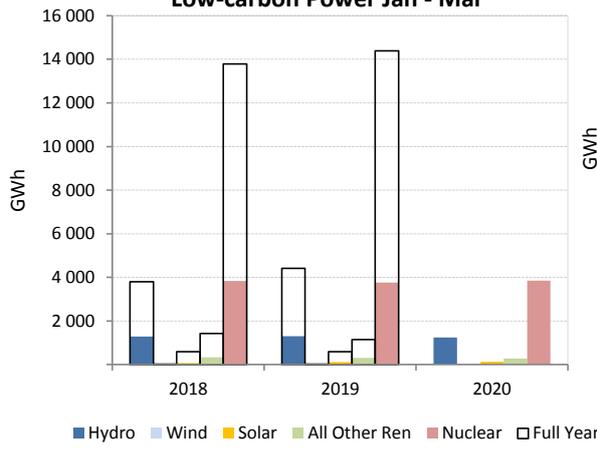
Electricity Production



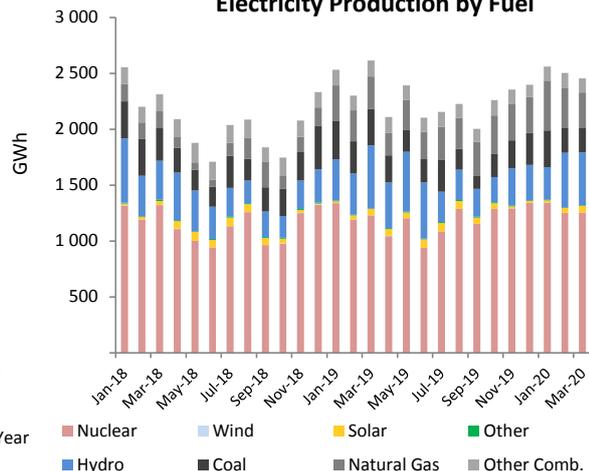
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# SLOVENIA

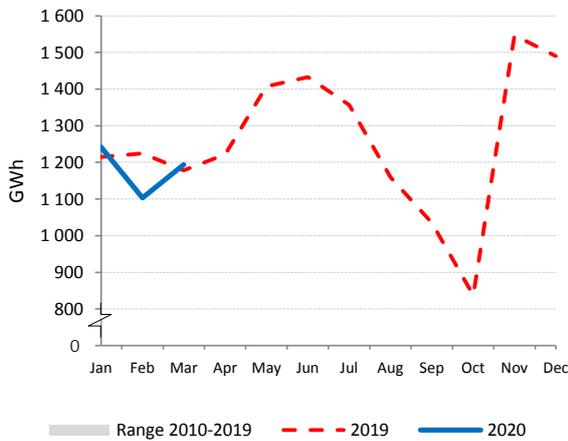
|                               | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>308</b>   | <b>-17.7%</b>       | <b>-16.7%</b>       | <b>25.8%</b> | <b>1 067</b> | <b>1 300</b> | <b>-17.9%</b>       | <b>4 756</b>  | <b>31.5%</b> |
| Coal                          | 230          | -23.6%              | -21.3%              | 19.2%        | 820          | 1 063        | -22.8%              | 4 032         | 26.7%        |
| Oil                           | 0            | -86.0%              | -50.0%              | 0.0%         | 1            | 2            | -72.0%              | 5             | 0.0%         |
| Natural Gas                   | 56           | 9.9%                | 0.4%                | 4.7%         | 178          | 166          | 7.4%                | 491           | 3.3%         |
| Combustible Renewables        | 22           | -0.6%               | -0.4%               | 1.8%         | 66           | 67           | -1.4%               | 220           | 1.5%         |
| Other Combustibles            | 1            | 17.1%               | 14.7%               | 0.1%         | 3            | 3            | 5.2%                | 9             | 0.1%         |
| <b>Nuclear</b>                | <b>518</b>   | <b>0.1%</b>         | <b>7.1%</b>         | <b>43.3%</b> | <b>1 519</b> | <b>1 499</b> | <b>1.4%</b>         | <b>5 533</b>  | <b>36.6%</b> |
| <b>Hydro</b>                  | <b>344</b>   | <b>31.7%</b>        | <b>47.7%</b>        | <b>28.8%</b> | <b>897</b>   | <b>766</b>   | <b>17.1%</b>        | <b>4 540</b>  | <b>30.1%</b> |
| <b>Wind</b>                   | <b>1</b>     | <b>28.5%</b>        | <b>143.5%</b>       | <b>0.1%</b>  | <b>2</b>     | <b>2</b>     | <b>-12.1%</b>       | <b>6</b>      | <b>0.0%</b>  |
| <b>Solar</b>                  | <b>24</b>    | <b>-6.1%</b>        | <b>42.7%</b>        | <b>2.0%</b>  | <b>54</b>    | <b>50</b>    | <b>6.8%</b>         | <b>268</b>    | <b>1.8%</b>  |
| Geothermal                    | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>390</b>   | <b>26.3%</b>        | <b>43.7%</b>        | <b>32.7%</b> | <b>1 018</b> | <b>885</b>   | <b>15.1%</b>        | <b>5 034</b>  | <b>33.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>804</b>   | <b>-7.5%</b>        | <b>-3.3%</b>        | <b>67.3%</b> | <b>2 520</b> | <b>2 732</b> | <b>-7.7%</b>        | <b>10 069</b> | <b>66.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>1 194</b> | <b>1.3%</b>         | <b>8.3%</b>         |              | <b>3 539</b> | <b>3 617</b> | <b>-2.2%</b>        | <b>15 103</b> |              |
| + Imports                     | 835          | -6.9%               | 9.4%                |              | 2 376        | 2 504        | -5.1%               | 9 021         |              |
| - Exports                     | 757          | -7.0%               | 23.2%               |              | 2 007        | 2 295        | -12.5%              | 9 421         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>1 272</b> | <b>0.9%</b>         | <b>1.6%</b>         |              | <b>3 908</b> | <b>3 826</b> | <b>2.1%</b>         | <b>14 704</b> |              |
| - Used for pumped storage     | 39           | -                   | 20.8%               |              | 107          | -            | -                   | 272           |              |
| - T&D Losses                  | 85           | 20.3%               | 5.7%                |              | 274          | 276          | -0.6%               | 858           |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>1 148</b> | <b>-3.6%</b>        | <b>0.8%</b>         |              | <b>3 526</b> | <b>3 550</b> | <b>-0.7%</b>        | <b>13 574</b> |              |

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

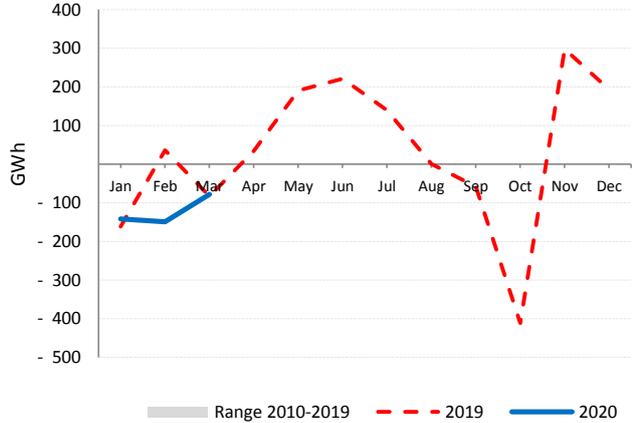
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

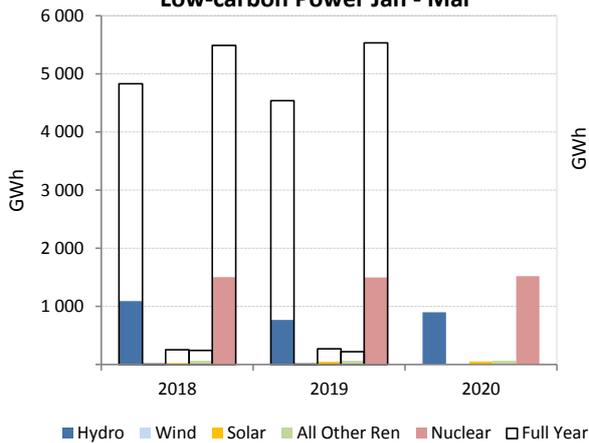
Electricity Production



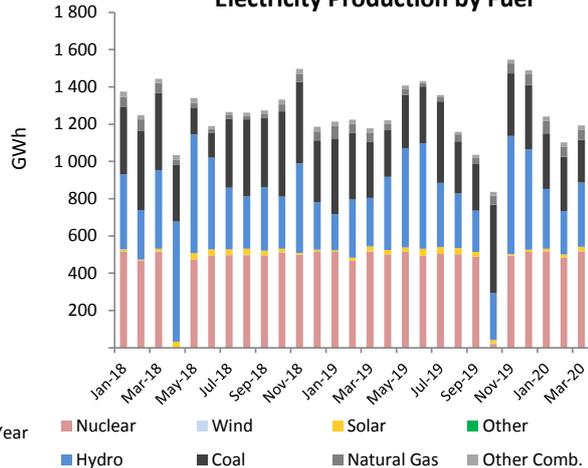
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# SPAIN

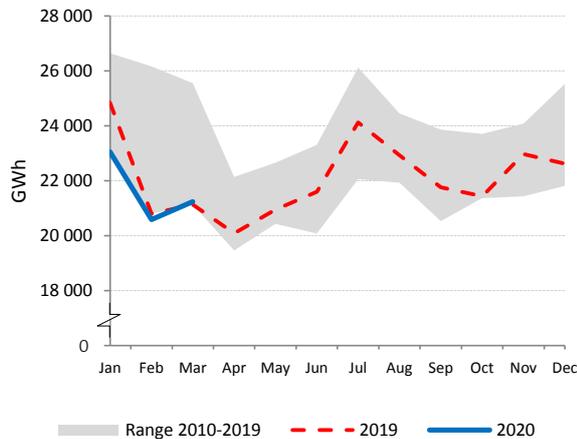
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>5 743</b>  | <b>-21.3%</b>       | <b>-19.8%</b>       | <b>27.0%</b> | <b>21 361</b> | <b>26 831</b> | <b>-20.4%</b>       | <b>113 696</b> | <b>42.9%</b> |
| Coal                          | 467           | -50.8%              | -42.2%              | 2.2%         | 2 129         | 6 567         | -67.6%              | 12 477         | 4.7%         |
| Oil                           | 928           | -11.1%              | -3.6%               | 4.4%         | 2 984         | 3 188         | -6.4%               | 12 770         | 4.8%         |
| Natural Gas                   | 3 760         | -20.4%              | -21.7%              | 17.7%        | 14 500        | 15 410        | -5.9%               | 81 842         | 30.9%        |
| Combustible Renewables        | 517           | 4.6%                | -0.1%               | 2.4%         | 1 542         | 1 425         | 8.2%                | 5 720          | 2.2%         |
| Other Combustibles            | 71            | -16.6%              | 4.2%                | 0.3%         | 205           | 242           | -15.4%              | 886            | 0.3%         |
| <b>Nuclear</b>                | <b>5 171</b>  | <b>-1.9%</b>        | <b>5.9%</b>         | <b>24.4%</b> | <b>15 339</b> | <b>15 072</b> | <b>1.8%</b>         | <b>55 786</b>  | <b>21.0%</b> |
| <b>Hydro</b>                  | <b>3 423</b>  | <b>47.1%</b>        | <b>11.4%</b>        | <b>16.1%</b> | <b>10 464</b> | <b>7 304</b>  | <b>43.3%</b>        | <b>26 426</b>  | <b>10.0%</b> |
| <b>Wind</b>                   | <b>5 613</b>  | <b>13.7%</b>        | <b>31.1%</b>        | <b>26.4%</b> | <b>14 531</b> | <b>14 691</b> | <b>-1.1%</b>        | <b>54 800</b>  | <b>20.7%</b> |
| <b>Solar</b>                  | <b>1 278</b>  | <b>-1.1%</b>        | <b>7.6%</b>         | <b>6.0%</b>  | <b>3 164</b>  | <b>2 849</b>  | <b>11.0%</b>        | <b>14 424</b>  | <b>5.4%</b>  |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                 | 7             | -                   | -                   | 0.0%         | 20            | 20            | -                   | 79             | 0.0%         |
| <b>RENEWABLES</b>             | <b>10 831</b> | <b>19.7%</b>        | <b>19.6%</b>        | <b>51.0%</b> | <b>29 702</b> | <b>26 269</b> | <b>13.1%</b>        | <b>101 370</b> | <b>38.2%</b> |
| <b>NON-RENEWABLES</b>         | <b>10 404</b> | <b>-13.9%</b>       | <b>-9.8%</b>        | <b>49.0%</b> | <b>35 178</b> | <b>40 499</b> | <b>-13.1%</b>       | <b>163 841</b> | <b>61.8%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>21 235</b> | <b>0.5%</b>         | <b>3.1%</b>         |              | <b>64 879</b> | <b>66 768</b> | <b>-2.8%</b>        | <b>265 210</b> |              |
| + Imports                     | 1 693         | -30.3%              | -7.2%               |              | 5 859         | 6 068         | -3.4%               | 18 721         |              |
| - Exports                     | 1 199         | 15.7%               | 51.9%               |              | 2 848         | 3 418         | -16.7%              | 11 859         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>21 729</b> | <b>-3.5%</b>        | <b>0.5%</b>         |              | <b>67 891</b> | <b>69 418</b> | <b>-2.2%</b>        | <b>272 073</b> |              |
| - Used for pumped storage     | 632           | 68.0%               | 60.8%               |              | 1 424         | 1 013         | 40.6%               | 3 204          |              |
| - T&D Losses                  | 1 971         | -4.7%               | -0.5%               |              | 6 202         | 6 392         | -3.0%               | 25 011         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>19 126</b> | <b>-4.8%</b>        | <b>-0.7%</b>        |              | <b>60 265</b> | <b>62 014</b> | <b>-2.8%</b>        | <b>243 858</b> |              |

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

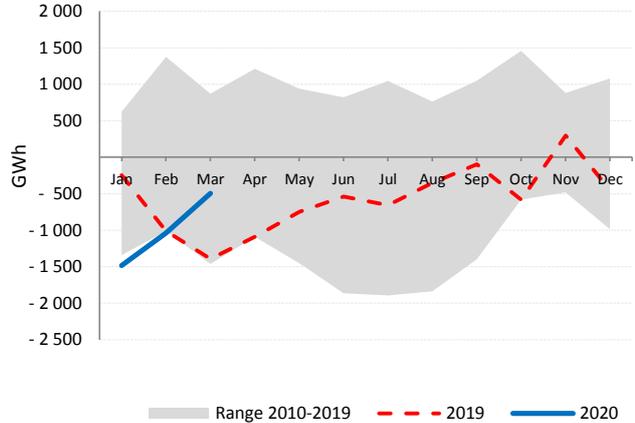
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

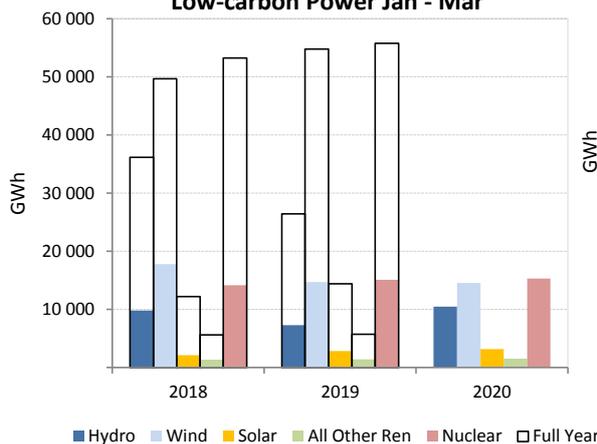
Electricity Production



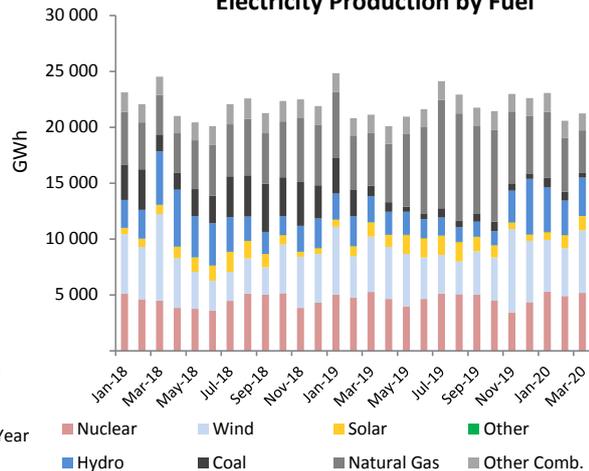
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# SWEDEN

|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>1 237</b>  | <b>-32.6%</b>       | <b>-2.4%</b>        | <b>7.8%</b>  | <b>3 987</b>  | <b>5 790</b>  | <b>-31.1%</b>       | <b>15 576</b>  | <b>9.4%</b>  |
| Coal                          | 0             | -100.0%             | -96.0%              | 0.0%         | 3             | 727           | -99.6%              | 851            | 0.5%         |
| Oil                           | 10            | -81.9%              | 37.5%               | 0.1%         | 27            | 166           | -83.8%              | 306            | 0.2%         |
| Natural Gas                   | 2             | -97.4%              | -78.5%              | 0.0%         | 17            | 247           | -93.3%              | 313            | 0.2%         |
| Combustible Renewables        | 1 143         | -17.4%              | -2.3%               | 7.2%         | 3 686         | 4 240         | -13.1%              | 12 654         | 7.6%         |
| Other Combustibles            | 82            | -35.8%              | 1.7%                | 0.5%         | 254           | 411           | -38.0%              | 1 452          | 0.9%         |
| <b>Nuclear</b>                | <b>5 181</b>  | <b>-10.0%</b>       | <b>10.6%</b>        | <b>32.8%</b> | <b>15 625</b> | <b>17 307</b> | <b>-9.7%</b>        | <b>64 333</b>  | <b>38.8%</b> |
| <b>Hydro</b>                  | <b>6 387</b>  | <b>9.2%</b>         | <b>-2.2%</b>        | <b>40.4%</b> | <b>18 933</b> | <b>17 876</b> | <b>5.9%</b>         | <b>65 526</b>  | <b>39.5%</b> |
| <b>Wind</b>                   | <b>2 973</b>  | <b>25.3%</b>        | <b>-2.5%</b>        | <b>18.8%</b> | <b>9 531</b>  | <b>6 295</b>  | <b>51.4%</b>        | <b>19 884</b>  | <b>12.0%</b> |
| <b>Solar<sup>4</sup></b>      | <b>42</b>     | <b>-</b>            | <b>159.8%</b>       | <b>0.3%</b>  | <b>66</b>     | <b>66</b>     | <b>-</b>            | <b>407</b>     | <b>0.2%</b>  |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified                 | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>             | <b>10 545</b> | <b>9.3%</b>         | <b>-2.1%</b>        | <b>66.7%</b> | <b>32 217</b> | <b>28 477</b> | <b>13.1%</b>        | <b>98 472</b>  | <b>59.4%</b> |
| <b>NON-RENEWABLES</b>         | <b>5 275</b>  | <b>-15.1%</b>       | <b>10.3%</b>        | <b>33.3%</b> | <b>15 926</b> | <b>18 857</b> | <b>-15.5%</b>       | <b>67 255</b>  | <b>40.6%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>15 820</b> | <b>-0.2%</b>        | <b>1.7%</b>         |              | <b>48 143</b> | <b>47 335</b> | <b>1.7%</b>         | <b>165 726</b> |              |
| + Imports                     | 513           | -32.1%              | -16.8%              |              | 1 430         | 2 568         | -44.3%              | 8 948          |              |
| - Exports                     | 3 085         | 1.6%                | 9.6%                |              | 9 233         | 7 838         | 17.8%               | 34 116         |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>13 248</b> | <b>-2.4%</b>        | <b>-0.8%</b>        |              | <b>40 340</b> | <b>42 064</b> | <b>-4.1%</b>        | <b>140 558</b> |              |
| - Used for pumped storage     | -             | -                   | -                   |              | 9             | 1             | 657.1%              | 24             |              |
| - T&D Losses                  | 1 032         | 0.8%                | -0.1%               |              | 3 175         | 3 356         | -5.4%               | 10 253         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>12 216</b> | <b>-2.7%</b>        | <b>-0.8%</b>        |              | <b>37 155</b> | <b>38 707</b> | <b>-4.0%</b>        | <b>130 281</b> |              |

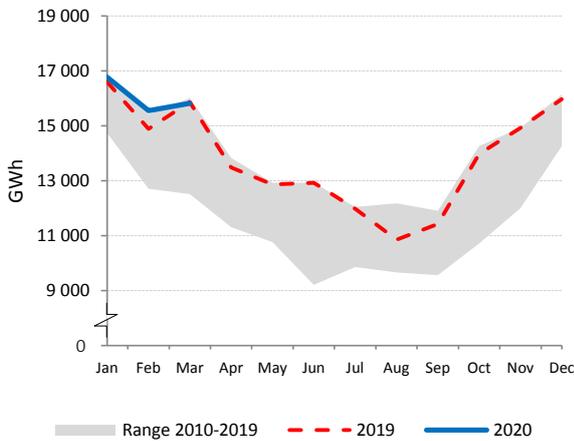
<sup>1</sup> current month to month of last year change

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

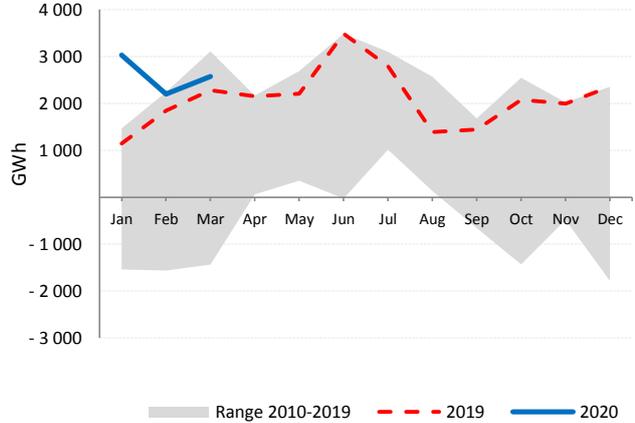
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

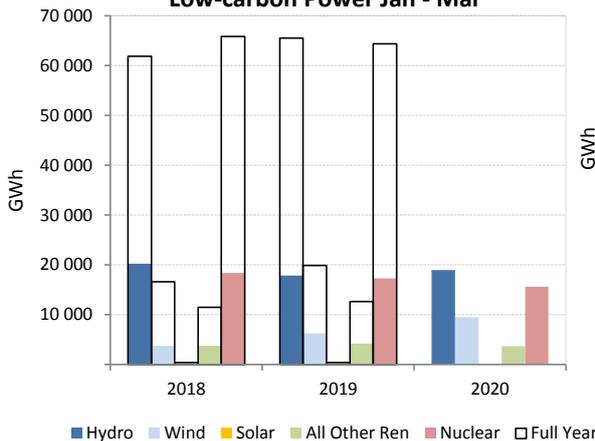
Electricity Production



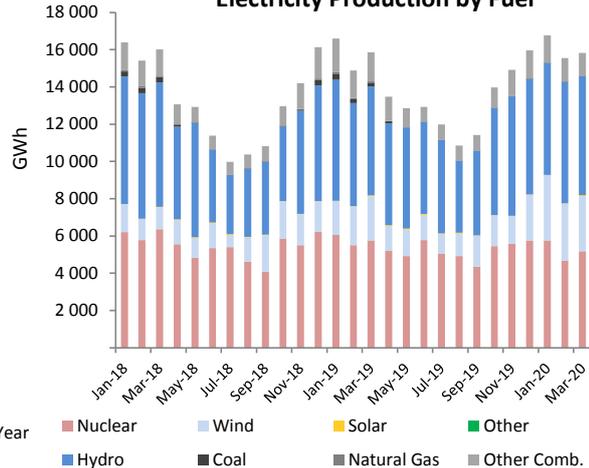
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# SWITZERLAND

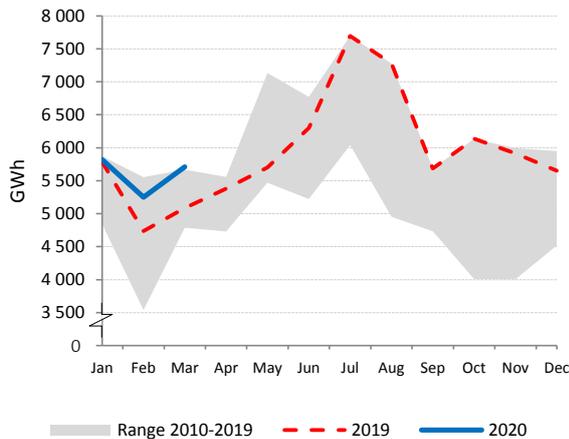
|                               | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                               | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>319</b>   | <b>10.6%</b>        | <b>-11.1%</b>       | <b>5.6%</b>  | <b>1 035</b>  | <b>971</b>    | <b>6.7%</b>         | <b>3 731</b>  | <b>5.2%</b>  |
| Coal                          | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Oil                           | 1            | -50.0%              | -                   | 0.0%         | 3             | 6             | -50.0%              | 24            | 0.0%         |
| Natural Gas                   | 39           | -6.0%               | -11.3%              | 0.7%         | 126           | 139           | -8.9%               | 532           | 0.7%         |
| Combustible Renewables        | 167          | 11.9%               | -11.3%              | 2.9%         | 542           | 502           | 7.9%                | 1 931         | 2.7%         |
| Other Combustibles            | 112          | 17.0%               | -10.9%              | 2.0%         | 364           | 324           | 12.4%               | 1 243         | 1.7%         |
| <b>Nuclear</b>                | <b>2 169</b> | <b>-8.0%</b>        | <b>6.7%</b>         | <b>38.0%</b> | <b>6 372</b>  | <b>6 785</b>  | <b>-6.1%</b>        | <b>25 093</b> | <b>35.2%</b> |
| <b>Hydro</b>                  | <b>2 984</b> | <b>33.6%</b>        | <b>9.8%</b>         | <b>52.3%</b> | <b>8 900</b>  | <b>7 462</b>  | <b>19.3%</b>        | <b>40 274</b> | <b>56.4%</b> |
| <b>Wind</b>                   | <b>16</b>    | <b>-23.8%</b>       | <b>-33.3%</b>       | <b>0.3%</b>  | <b>57</b>     | <b>48</b>     | <b>19.1%</b>        | <b>149</b>    | <b>0.2%</b>  |
| <b>Solar</b>                  | <b>222</b>   | <b>20.0%</b>        | <b>92.0%</b>        | <b>3.9%</b>  | <b>415</b>    | <b>341</b>    | <b>21.7%</b>        | <b>2 099</b>  | <b>2.9%</b>  |
| Geothermal                    | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables              | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified                 | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>RENEWABLES</b>             | <b>3 389</b> | <b>30.9%</b>        | <b>11.3%</b>        | <b>59.4%</b> | <b>9 914</b>  | <b>8 353</b>  | <b>18.7%</b>        | <b>44 453</b> | <b>62.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>2 321</b> | <b>-7.0%</b>        | <b>5.4%</b>         | <b>40.6%</b> | <b>6 865</b>  | <b>7 254</b>  | <b>-5.4%</b>        | <b>26 893</b> | <b>37.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>5 710</b> | <b>12.3%</b>        | <b>8.8%</b>         |              | <b>16 779</b> | <b>15 607</b> | <b>7.5%</b>         | <b>71 345</b> |              |
| + Imports                     | 2 702        | -23.1%              | -20.5%              |              | 9 525         | 10 790        | -11.7%              | 31 017        |              |
| - Exports                     | 2 768        | 5.8%                | -8.8%               |              | 8 948         | 8 219         | 8.9%                | 36 538        |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>5 643</b> | <b>-5.6%</b>        | <b>0.6%</b>         |              | <b>17 356</b> | <b>18 177</b> | <b>-4.5%</b>        | <b>65 824</b> |              |
| - Used for pumped storage     | 288          | -10.2%              | 29.3%               |              | 708           | 723           | -2.1%               | 3 965         |              |
| - T&D Losses                  | 361          | -4.7%               | -2.9%               |              | 1 098         | 1 146         | -4.2%               | 4 241         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>4 994</b> | <b>-5.4%</b>        | <b>-0.4%</b>        |              | <b>15 550</b> | <b>16 308</b> | <b>-4.6%</b>        | <b>57 618</b> |              |

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

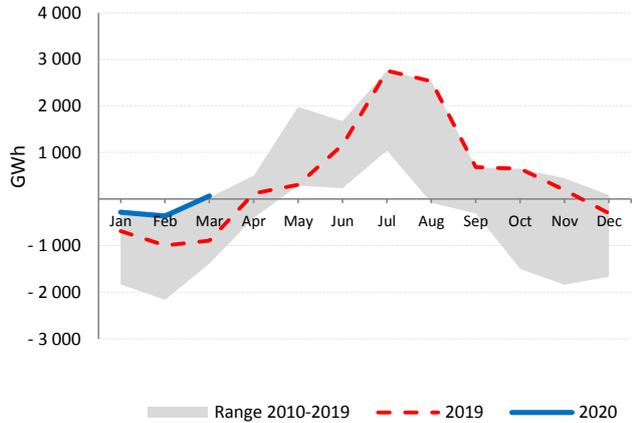
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

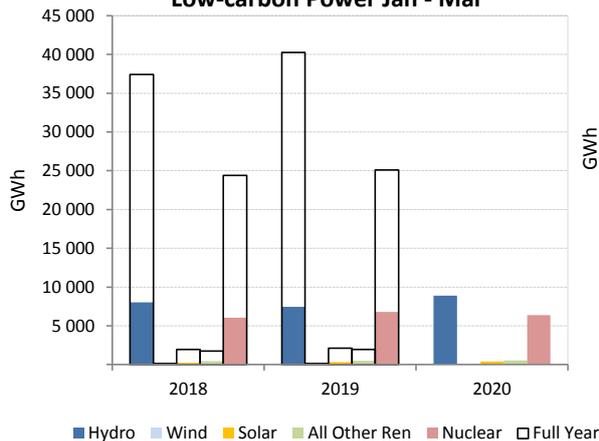
Electricity Production



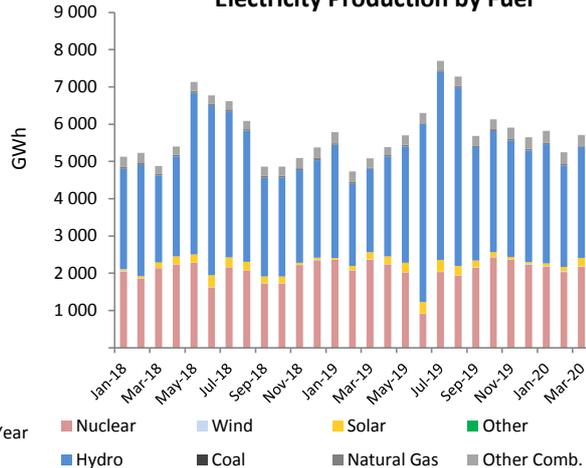
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel

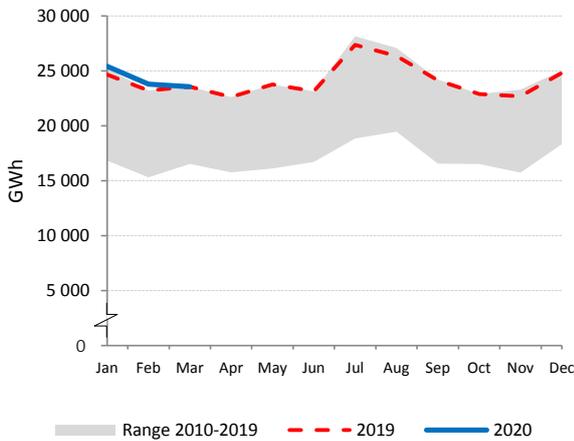


# TURKEY

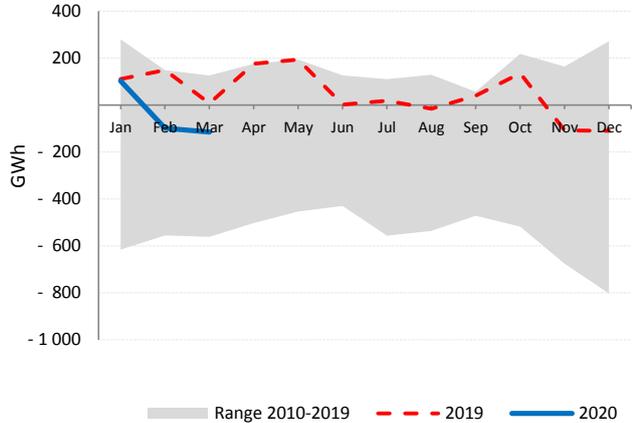
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>10 404</b> | <b>-16.8%</b>       | <b>-21.6%</b>       | <b>44.2%</b> | <b>40 021</b> | <b>38 843</b> | <b>3.0%</b>         | <b>163 038</b> | <b>56.4%</b> |
| Coal                          | 7 717         | -4.5%               | -7.4%               | 32.8%        | 25 246        | 25 170        | 0.3%                | 106 169        | 36.7%        |
| Oil                           | 16            | -39.3%              | 3.8%                | 0.1%         | 47            | 79            | -40.1%              | 232            | 0.1%         |
| Natural Gas                   | 2 336         | -43.6%              | -49.5%              | 9.9%         | 13 764        | 12 823        | 7.3%                | 53 451         | 18.5%        |
| Combustible Renewables        | 335           | 25.7%               | 10.6%               | 1.4%         | 961           | 769           | 25.0%               | 3 179          | 1.1%         |
| Other Combustibles            | 1             | 15.3%               | -4.2%               | 0.0%         | 2             | 1             | 64.1%               | 6              | 0.0%         |
| <b>Nuclear</b>                | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Hydro</b>                  | <b>9 316</b>  | <b>24.3%</b>        | <b>34.2%</b>        | <b>39.6%</b> | <b>21 570</b> | <b>21 901</b> | <b>-1.5%</b>        | <b>86 131</b>  | <b>29.8%</b> |
| <b>Wind</b>                   | <b>2 152</b>  | <b>6.9%</b>         | <b>-4.2%</b>        | <b>9.1%</b>  | <b>6 786</b>  | <b>6 029</b>  | <b>12.6%</b>        | <b>21 438</b>  | <b>7.4%</b>  |
| <b>Solar</b>                  | <b>851</b>    | <b>6.5%</b>         | <b>47.1%</b>        | <b>3.6%</b>  | <b>1 971</b>  | <b>1 653</b>  | <b>19.2%</b>        | <b>9 411</b>   | <b>3.3%</b>  |
| <b>Geothermal</b>             | <b>752</b>    | <b>16.5%</b>        | <b>9.6%</b>         | <b>3.2%</b>  | <b>2 187</b>  | <b>2 755</b>  | <b>-20.6%</b>       | <b>8 227</b>   | <b>2.8%</b>  |
| <b>Other Renewables</b>       | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>Non-Specified</b>          | <b>68</b>     | <b>-7.5%</b>        | <b>6.4%</b>         | <b>0.3%</b>  | <b>198</b>    | <b>219</b>    | <b>-9.8%</b>        | <b>847</b>     | <b>0.3%</b>  |
| <b>RENEWABLES</b>             | <b>13 406</b> | <b>19.5%</b>        | <b>24.7%</b>        | <b>56.9%</b> | <b>33 475</b> | <b>33 106</b> | <b>1.1%</b>         | <b>128 387</b> | <b>44.4%</b> |
| <b>NON-RENEWABLES</b>         | <b>10 137</b> | <b>-17.7%</b>       | <b>-22.2%</b>       | <b>43.1%</b> | <b>39 258</b> | <b>38 293</b> | <b>2.5%</b>         | <b>160 705</b> | <b>55.6%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>23 544</b> | <b>0.0%</b>         | <b>-1.0%</b>        |              | <b>72 733</b> | <b>71 399</b> | <b>1.9%</b>         | <b>289 092</b> |              |
| + Imports                     | 309           | 18.6%               | 8.1%                |              | 721           | 580           | 24.3%               | 2 221          |              |
| - Exports                     | 193           | -27.7%              | 3.6%                |              | 610           | 848           | -28.0%              | 2 823          |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>23 659</b> | <b>0.5%</b>         | <b>-1.0%</b>        |              | <b>72 844</b> | <b>71 132</b> | <b>2.4%</b>         | <b>288 491</b> |              |
| - Used for pumped storage     | -             | -                   | -                   |              | -             | -             | -                   | -              |              |
| - T&D Losses <sup>4</sup>     | 2 575         | 0.2%                | -0.9%               |              | 7 931         | 7 772         | 2.0%                | 31 455         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>21 083</b> | <b>0.6%</b>         | <b>-1.0%</b>        |              | <b>64 913</b> | <b>63 360</b> | <b>2.5%</b>         | <b>257 035</b> |              |

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

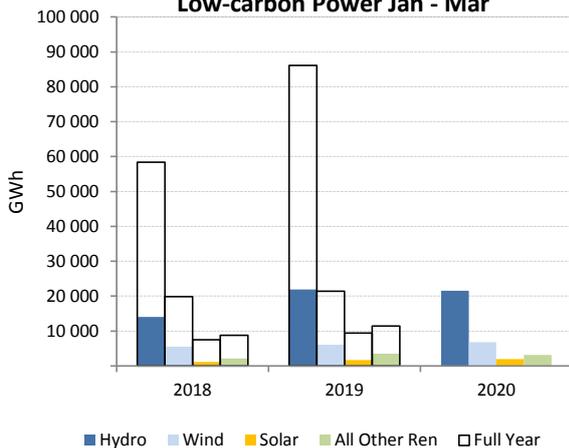
**Electricity Production**



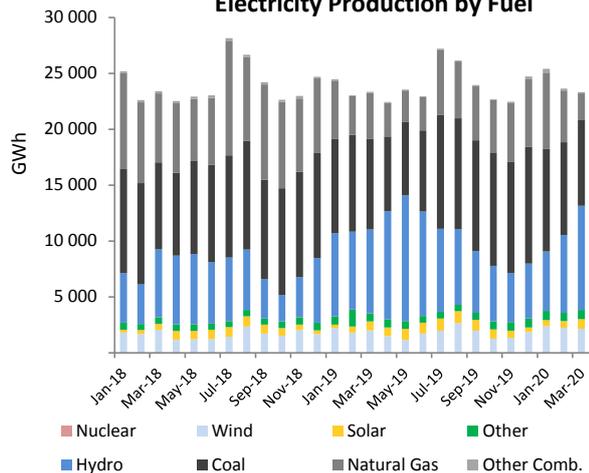
**Net Electricity Exports**



**Low-carbon Power Jan - Mar**



**Electricity Production by Fuel**

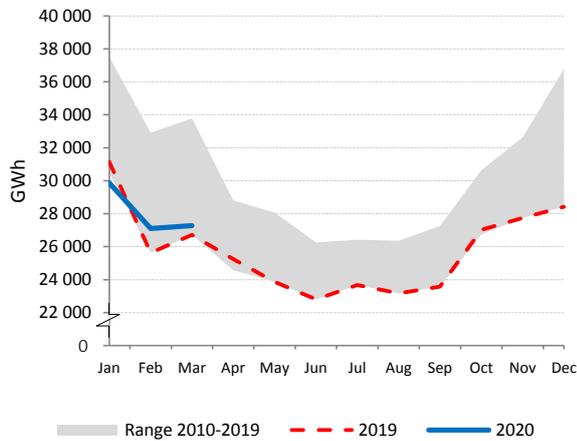


# UNITED KINGDOM

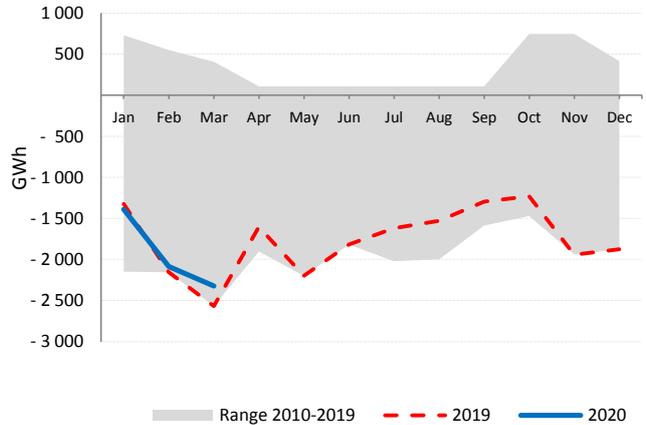
|                               | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-------------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                               | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>14 109</b> | <b>1.4%</b>         | <b>16.5%</b>        | <b>51.7%</b> | <b>41 306</b> | <b>47 991</b> | <b>-13.9%</b>       | <b>173 824</b> | <b>56.3%</b> |
| Coal                          | 634           | 32.8%               | -42.7%              | 2.3%         | 3 380         | 3 069         | 10.1%               | 6 931          | 2.2%         |
| Oil                           | 73            | 11.4%               | 5.4%                | 0.3%         | 217           | 292           | -25.7%              | 1 014          | 0.3%         |
| Natural Gas                   | 9 841         | -3.4%               | 28.6%               | 36.1%        | 27 126        | 35 379        | -23.3%              | 127 294        | 41.2%        |
| Combustible Renewables        | 3 103         | 11.5%               | 8.9%                | 11.4%        | 9 237         | 8 066         | 14.5%               | 33 757         | 10.9%        |
| Other Combustibles            | 457           | 11.2%               | 6.2%                | 1.7%         | 1 346         | 1 184         | 13.7%               | 4 829          | 1.6%         |
| <b>Nuclear</b>                | <b>3 257</b>  | <b>-20.0%</b>       | <b>-14.7%</b>       | <b>11.9%</b> | <b>11 904</b> | <b>12 631</b> | <b>-5.8%</b>        | <b>51 032</b>  | <b>16.5%</b> |
| <b>Hydro</b>                  | <b>856</b>    | <b>-3.2%</b>        | <b>-4.7%</b>        | <b>3.1%</b>  | <b>2 633</b>  | <b>2 295</b>  | <b>14.7%</b>        | <b>7 567</b>   | <b>2.4%</b>  |
| <b>Wind</b>                   | <b>7 479</b>  | <b>8.1%</b>         | <b>-21.9%</b>       | <b>27.4%</b> | <b>25 748</b> | <b>18 474</b> | <b>39.4%</b>        | <b>63 920</b>  | <b>20.7%</b> |
| <b>Solar</b>                  | <b>1 581</b>  | <b>72.5%</b>        | <b>123.2%</b>       | <b>5.8%</b>  | <b>2 670</b>  | <b>2 098</b>  | <b>27.2%</b>        | <b>12 649</b>  | <b>4.1%</b>  |
| Geothermal                    | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables              | 1             | -                   | -                   | 0.0%         | 2             | 2             | -                   | 9              | 0.0%         |
| Non-Specified                 | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>             | <b>13 019</b> | <b>13.2%</b>        | <b>-7.2%</b>        | <b>47.7%</b> | <b>40 290</b> | <b>30 935</b> | <b>30.2%</b>        | <b>117 902</b> | <b>38.2%</b> |
| <b>NON-RENEWABLES</b>         | <b>14 262</b> | <b>-6.2%</b>        | <b>9.1%</b>         | <b>52.3%</b> | <b>43 973</b> | <b>52 555</b> | <b>-16.3%</b>       | <b>191 100</b> | <b>61.8%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>27 282</b> | <b>2.1%</b>         | <b>0.6%</b>         |              | <b>84 263</b> | <b>83 491</b> | <b>0.9%</b>         | <b>309 002</b> |              |
| + Imports                     | 2 537         | -8.6%               | 9.3%                |              | 6 680         | 6 779         | -1.5%               | 24 556         |              |
| - Exports                     | 212           | 3.2%                | -9.3%               |              | 879           | 730           | 20.4%               | 3 385          |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>29 607</b> | <b>1.1%</b>         | <b>1.4%</b>         |              | <b>90 065</b> | <b>89 540</b> | <b>0.6%</b>         | <b>330 172</b> |              |
| - Used for pumped storage     | 188           | -21.4%              | 1.2%                |              | 560           | 748           | -25.1%              | 2 360          |              |
| - T&D Losses                  | 2 701         | 8.3%                | -13.3%              |              | 8 964         | 8 072         | 11.1%               | 27 259         |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>26 718</b> | <b>0.6%</b>         | <b>3.2%</b>         |              | <b>80 540</b> | <b>80 721</b> | <b>-0.2%</b>        | <b>300 552</b> |              |

<sup>1</sup> current month to month of last year change  
<sup>2</sup> month-to-month change  
<sup>3</sup> year-to-date compared to same period last year

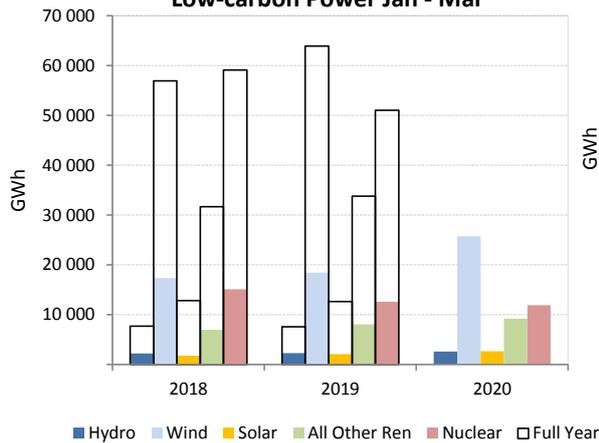
Electricity Production



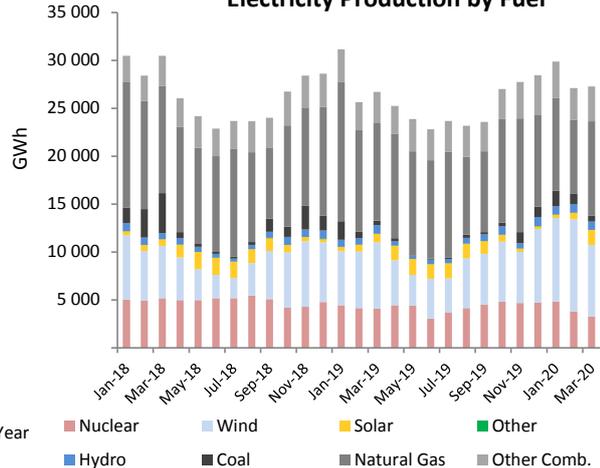
Net Electricity Exports



Low-carbon Power Jan - Mar



Electricity Production by Fuel



# UNITED STATES

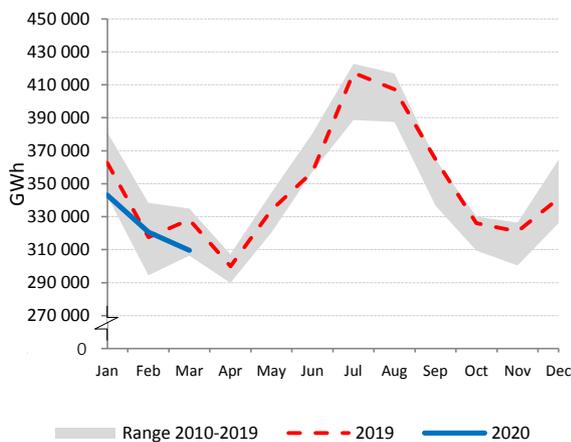
|                               | Mar 2020       |                     |                     |              | Year-to-Date   |                  |                     | 2019             |              |
|-------------------------------|----------------|---------------------|---------------------|--------------|----------------|------------------|---------------------|------------------|--------------|
|                               | GWh            | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019             | change <sup>3</sup> | GWh              | share        |
| <b>CONVENTIONAL THERMAL</b>   | <b>182 685</b> | <b>-9.0%</b>        | <b>-4.0%</b>        | <b>59.0%</b> | <b>580 219</b> | <b>631 624</b>   | <b>-8.1%</b>        | <b>2 658 507</b> | <b>63.6%</b> |
| Coal                          | 53 533         | -34.9%              | -9.7%               | 17.3%        | 181 431        | 271 319          | -33.1%              | 1 011 865        | 24.2%        |
| Oil                           | 3 028          | 13.6%               | 5.9%                | 1.0%         | 9 270          | 8 895            | 4.2%                | 35 243           | 0.8%         |
| Natural Gas                   | 120 376        | 9.4%                | -1.9%               | 38.9%        | 372 465        | 334 037          | 11.5%               | 1 542 091        | 36.9%        |
| Combustible Renewables        | 4 916          | -2.2%               | 4.9%                | 1.6%         | 14 633         | 15 198           | -3.7%               | 60 043           | 1.4%         |
| Other Combustibles            | 832            | 16.9%               | 10.3%               | 0.3%         | 2 420          | 2 175            | 11.3%               | 9 266            | 0.2%         |
| <b>Nuclear</b>                | <b>64 001</b>  | <b>-1.7%</b>        | <b>-3.0%</b>        | <b>20.7%</b> | <b>204 165</b> | <b>203 509</b>   | <b>0.3%</b>         | <b>809 291</b>   | <b>19.4%</b> |
| <b>Hydro</b>                  | <b>23 749</b>  | <b>-11.9%</b>       | <b>-11.0%</b>       | <b>7.7%</b>  | <b>76 399</b>  | <b>76 781</b>    | <b>-0.5%</b>        | <b>295 426</b>   | <b>7.1%</b>  |
| <b>Wind</b>                   | <b>29 298</b>  | <b>13.2%</b>        | <b>0.8%</b>         | <b>9.5%</b>  | <b>86 569</b>  | <b>73 789</b>    | <b>17.3%</b>        | <b>300 087</b>   | <b>7.2%</b>  |
| <b>Solar</b>                  | <b>8 090</b>   | <b>5.1%</b>         | <b>11.7%</b>        | <b>2.6%</b>  | <b>21 174</b>  | <b>17 401</b>    | <b>21.7%</b>        | <b>93 147</b>    | <b>2.2%</b>  |
| <b>Geothermal</b>             | <b>1 440</b>   | <b>0.7%</b>         | <b>28.9%</b>        | <b>0.5%</b>  | <b>3 769</b>   | <b>4 130</b>     | <b>-8.7%</b>        | <b>15 763</b>    | <b>0.4%</b>  |
| <b>Other Renewables</b>       | -              | -                   | -                   | -            | -              | -                | -                   | -                | -            |
| <b>Non-Specified</b>          | <b>326</b>     | <b>-19.7%</b>       | <b>7.8%</b>         | <b>0.1%</b>  | <b>980</b>     | <b>1 192</b>     | <b>-17.8%</b>       | <b>4 768</b>     | <b>0.1%</b>  |
| <b>RENEWABLES</b>             | <b>67 492</b>  | <b>0.8%</b>         | <b>-1.9%</b>        | <b>21.8%</b> | <b>202 545</b> | <b>187 298</b>   | <b>8.1%</b>         | <b>764 466</b>   | <b>18.3%</b> |
| <b>NON-RENEWABLES</b>         | <b>242 096</b> | <b>-7.3%</b>        | <b>-3.9%</b>        | <b>78.2%</b> | <b>770 731</b> | <b>821 127</b>   | <b>-6.1%</b>        | <b>3 412 523</b> | <b>81.7%</b> |
| <b>TOTAL NET PRODUCTION</b>   | <b>309 588</b> | <b>-5.7%</b>        | <b>-3.4%</b>        |              | <b>973 275</b> | <b>1 008 425</b> | <b>-3.5%</b>        | <b>4 176 989</b> |              |
| + Imports                     | 4 478          | 2.2%                | 11.4%               |              | 12 935         | 13 320           | -2.9%               | 54 478           |              |
| - Exports                     | 1 269          | -1.1%               | 15.9%               |              | 3 370          | 3 249            | 3.7%                | 12 156           |              |
| <b>= ELECTRICITY SUPPLIED</b> | <b>312 797</b> | <b>-5.6%</b>        | <b>-3.3%</b>        |              | <b>982 840</b> | <b>1 018 495</b> | <b>-3.5%</b>        | <b>4 219 311</b> |              |
| - Used for pumped storage     | 1 700          | -6.5%               | 0.5%                |              | 5 327          | 5 503            | -3.2%               | 26 034           |              |
| - T&D Losses                  | 10 903         | -22.0%              | -24.4%              |              | 41 052         | 44 254           | -7.2%               | 206 200          |              |
| <b>= ELECTRICITY CONSUMED</b> | <b>300 194</b> | <b>-4.8%</b>        | <b>-2.3%</b>        |              | <b>936 460</b> | <b>968 738</b>   | <b>-3.3%</b>        | <b>3 987 077</b> |              |

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

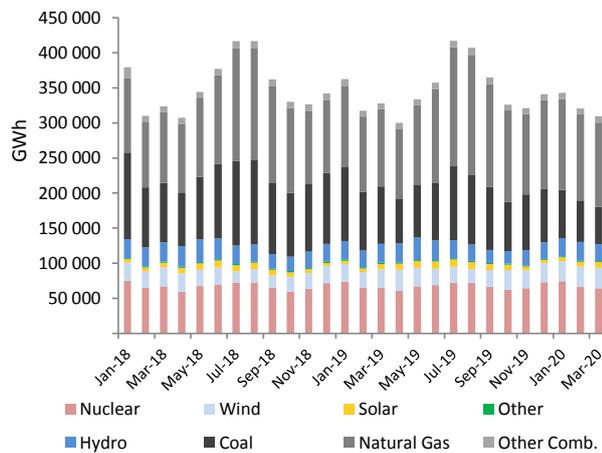
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

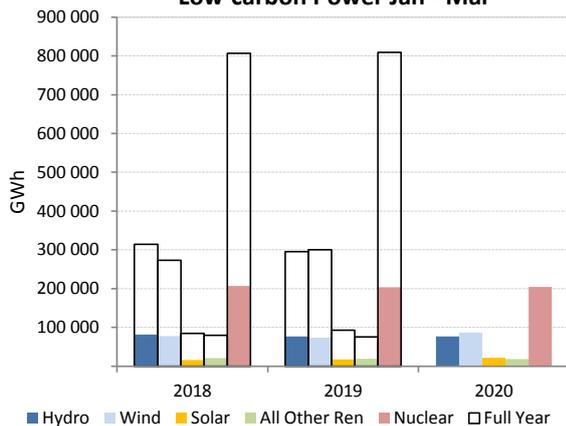
Electricity Production



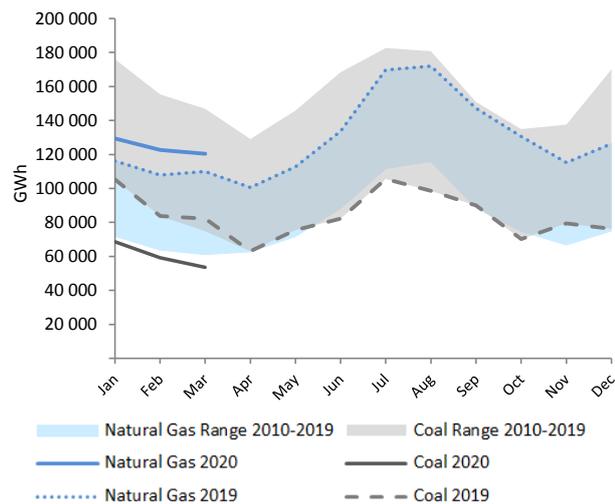
Electricity Production by Fuel



Low-carbon Power Jan - Mar

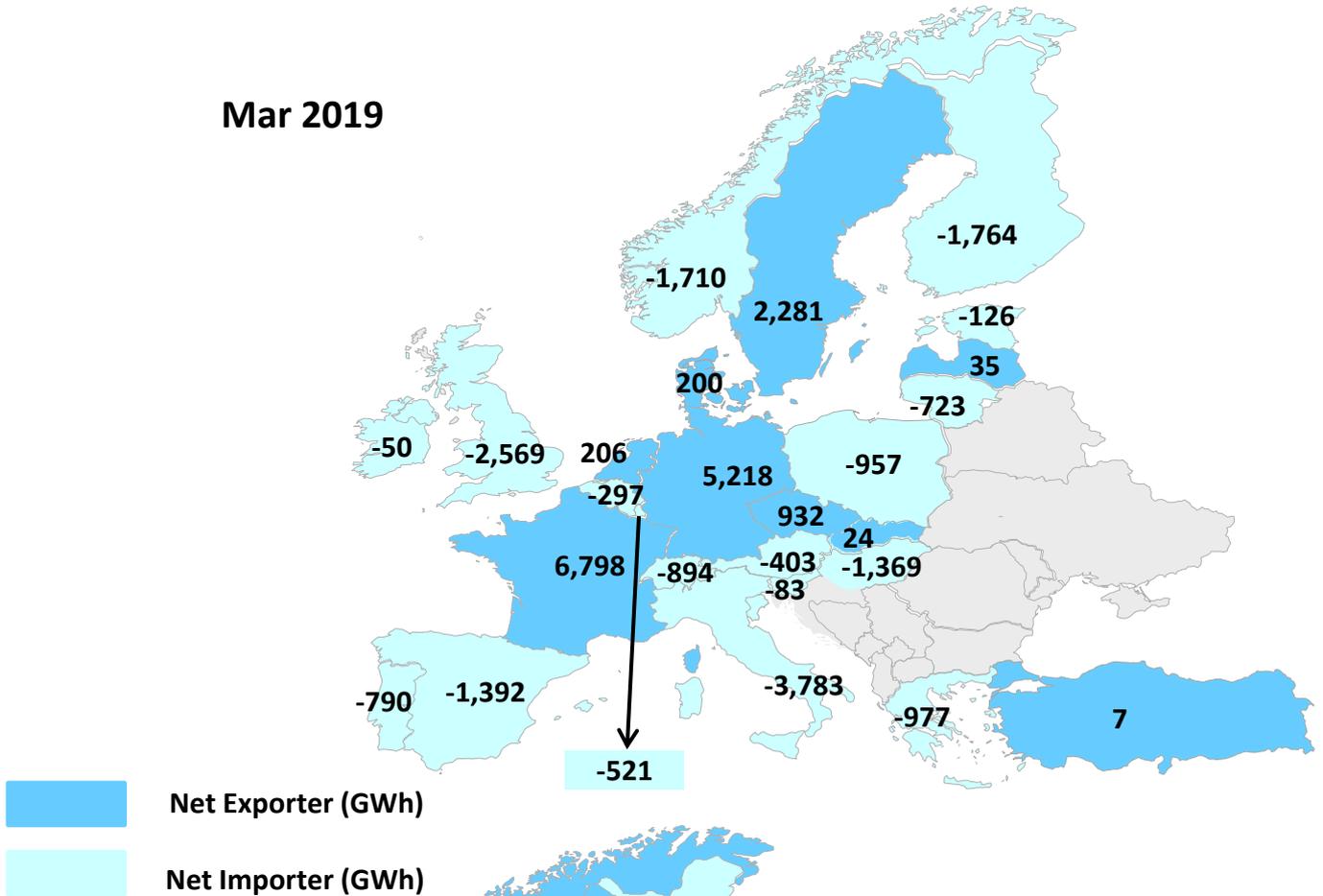


Natural Gas and Coal

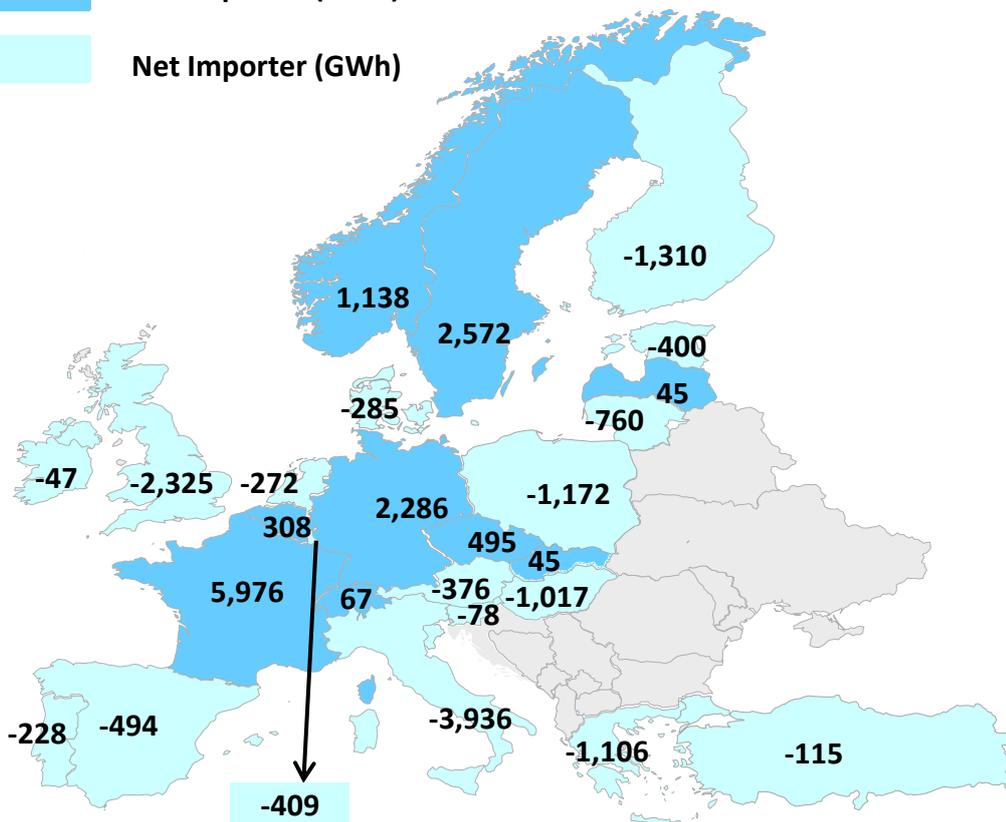


# NET ELECTRICITY EXPORTS OECD EUROPE MAP 1

Mar 2019



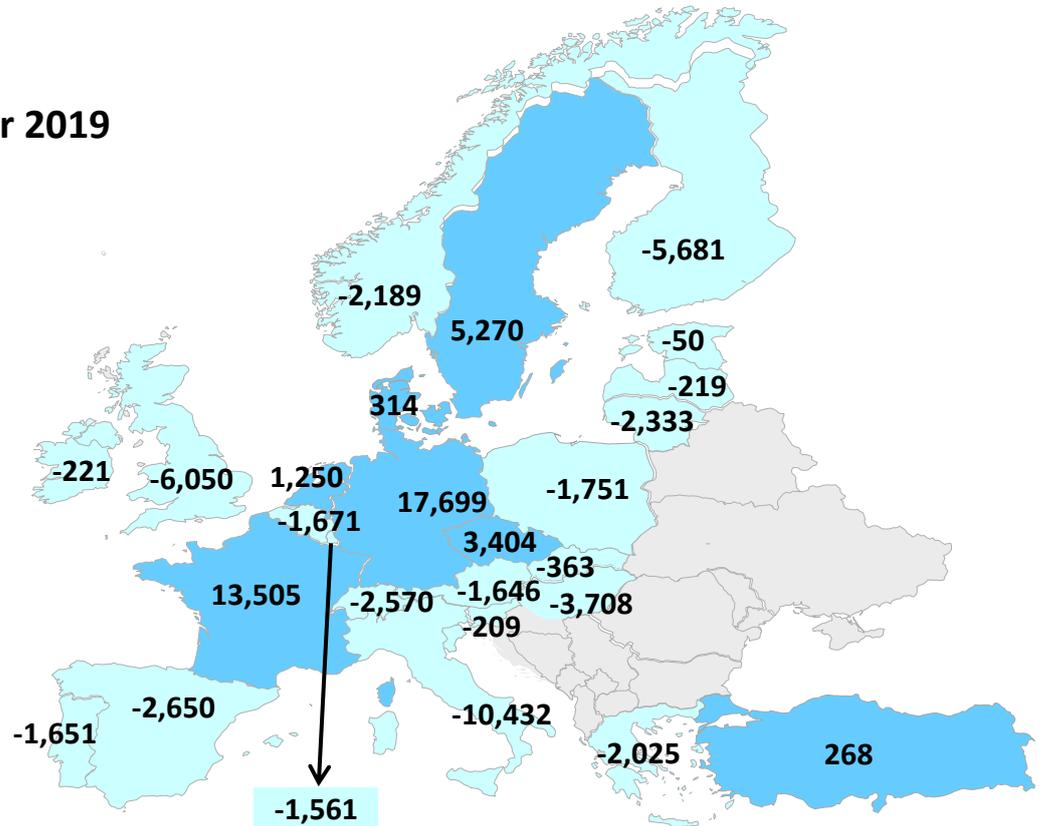
Mar 2020



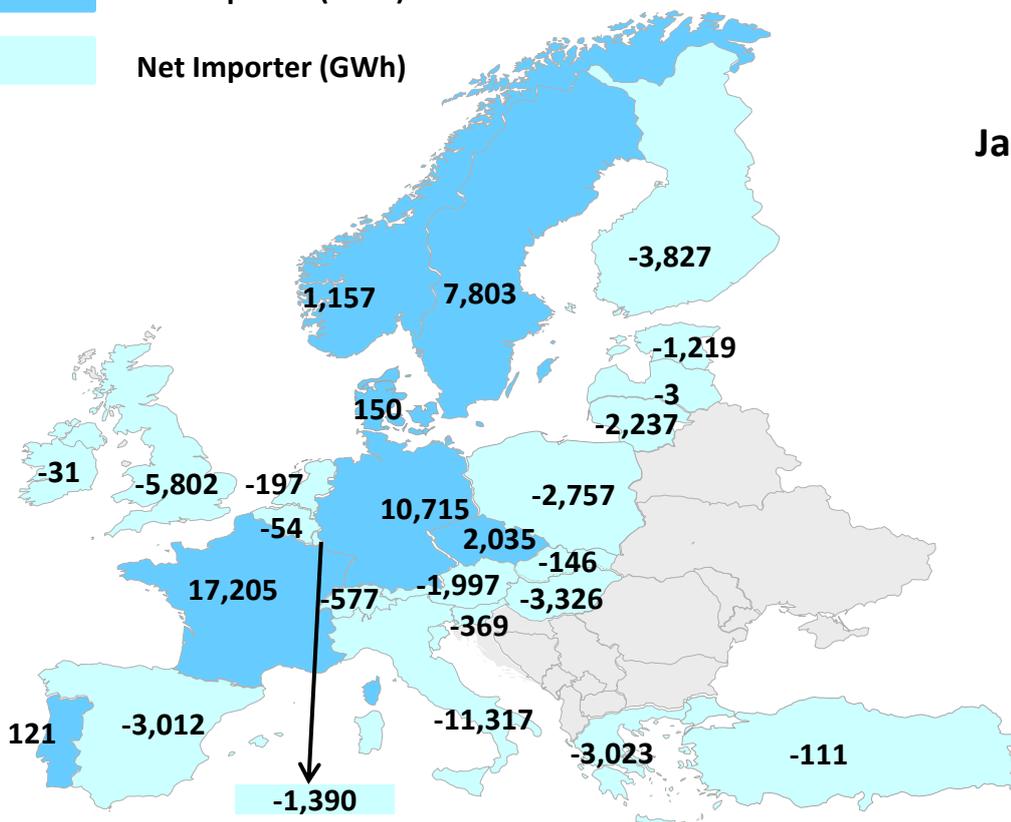


# NET ELECTRICITY EXPORTS OECD EUROPE MAP 2

Jan - Mar 2019

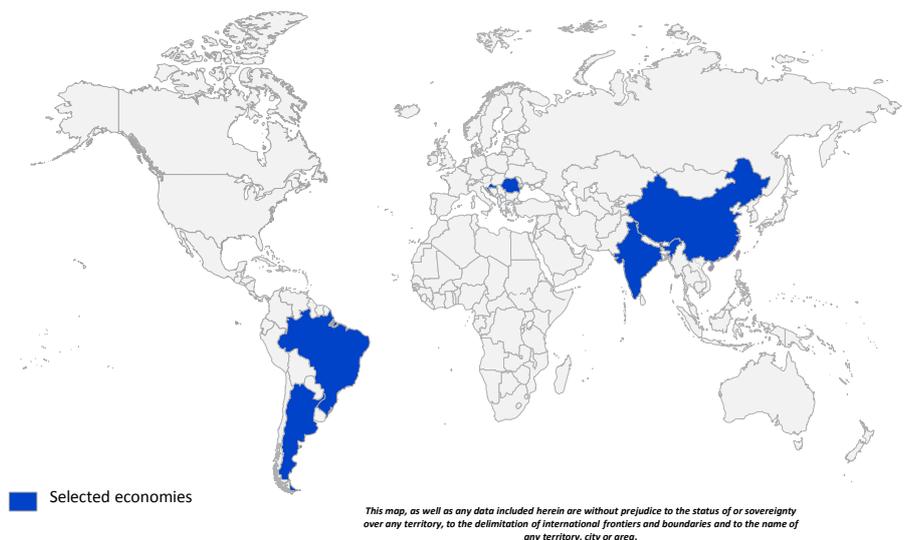


Jan - Mar 2020





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



### HIGHLIGHTS

- In March 2020, total net production in Argentina was 15.4 TWh, up by 17.9% compared to March 2019 and by 7.9% compared to February 2020. This increase is due to low carbon energy sources, especially wind and solar productions, which have increased throughout 2019, to reach their maximum level on record over the first three months of 2020. Wind production was 659.8 GWh in March 2020, 115.3% higher than in March 2019 and solar production was 98.0 GWh, 93.9% higher than in March 2019. This growth highlights the rapid development of renewables in Argentina.
- In Romania, conventional thermal production was 1,354.3 GWh in March 2020, 24.5% lower than in March 2019. During the first quarter of 2020, conventional thermal production was 5,272.0 GWh compared to 6238.5 GWh during the same period in 2019. This decrease in production is driven mainly by lower coal production, which decreased 861.6 GWh during the first three months of 2020. In March 2020, coal production was 685.0 GWh, the lowest recorded for a month of March since 2015.
- In Croatia, net electricity production was 1,084.3 GWh in March 2020, 31.6% higher than in March 2019, as a result of higher hydro production, which is the primary electricity source. Due to favorable weather conditions across Europe, hydro production in Croatia was 518.3 GWh in March 2020 compared to 320.0 GWh in March 2019.

# ARGENTINA

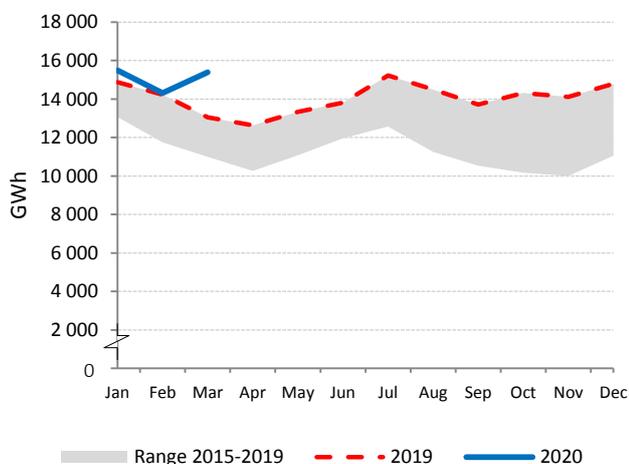
|                             | Mar 2020      |                     |                     |              | Year-to-Date  |               |                     | 2019           |              |
|-----------------------------|---------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|----------------|--------------|
|                             | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b> | <b>11 761</b> | <b>19.5%</b>        | <b>9.6%</b>         | <b>76.4%</b> | <b>33 919</b> | <b>32 799</b> | <b>3.4%</b>         | <b>125 504</b> | <b>74.4%</b> |
| Coal                        | 242           | -                   | 65.2%               | 1.6%         | 463           | 103           | 348.5%              | 916            | 0.5%         |
| Oil                         | 294           | 421.6%              | -23.3%              | 1.9%         | 1 610         | 1 534         | 4.9%                | 4 363          | 2.6%         |
| Natural Gas                 | 11 152        | 14.8%               | 10.0%               | 72.5%        | 31 636        | 30 992        | 2.1%                | 119 184        | 70.7%        |
| Combustible Renewables      | 74            | 6.5%                | 16.3%               | 0.5%         | 210           | 170           | 23.6%               | 1 042          | 0.6%         |
| Other Combustibles          | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Nuclear                     | 936           | 75.9%               | 15.3%               | 6.1%         | 2 548         | 1 038         | 145.4%              | 8 002          | 4.7%         |
| Hydro                       | 1 931         | -16.8%              | -5.1%               | 12.6%        | 6 459         | 7 360         | -12.2%              | 29 340         | 17.4%        |
| Wind                        | 660           | 115.3%              | 2.3%                | 4.3%         | 1 983         | 824           | 140.7%              | 4 960          | 2.9%         |
| Solar                       | 98            | 93.9%               | 16.7%               | 0.6%         | 288           | 134           | 114.4%              | 795            | 0.5%         |
| Geothermal                  | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Other Renewables            | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| Non-Specified               | -             | -                   | -                   | -            | -             | -             | -                   | -              | -            |
| <b>RENEWABLES</b>           | <b>2 763</b>  | <b>0.6%</b>         | <b>-2.3%</b>        | <b>18.0%</b> | <b>8 940</b>  | <b>8 488</b>  | <b>5.3%</b>         | <b>36 137</b>  | <b>21.4%</b> |
| <b>NON-RENEWABLES</b>       | <b>12 624</b> | <b>22.5%</b>        | <b>9.9%</b>         | <b>82.0%</b> | <b>36 256</b> | <b>33 667</b> | <b>7.7%</b>         | <b>132 465</b> | <b>78.6%</b> |
| <b>TOTAL NET PRODUCTION</b> | <b>15 387</b> | <b>17.9%</b>        | <b>7.5%</b>         |              | <b>45 196</b> | <b>42 155</b> | <b>7.2%</b>         | <b>168 602</b> |              |

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

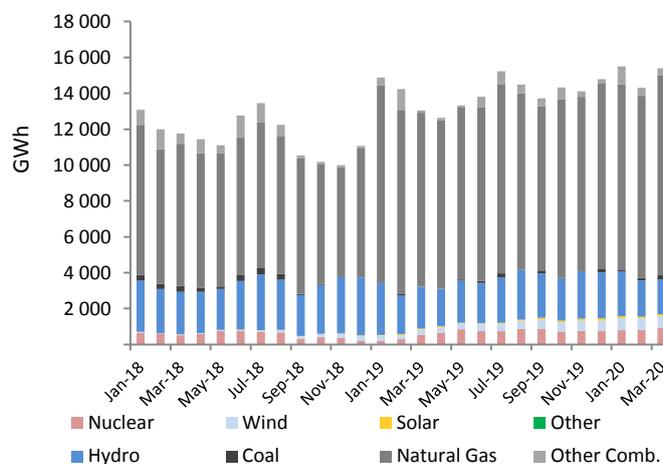
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

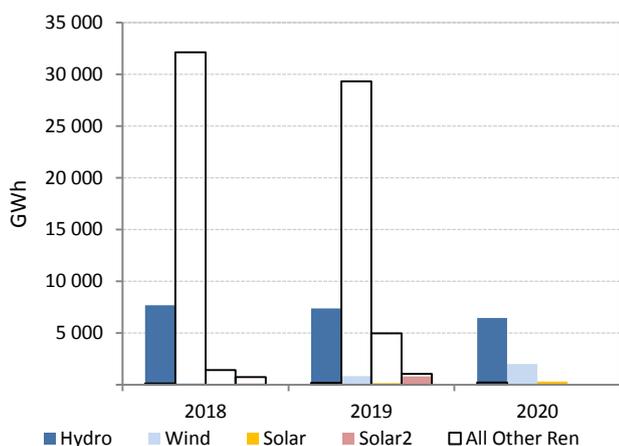
Electricity Production



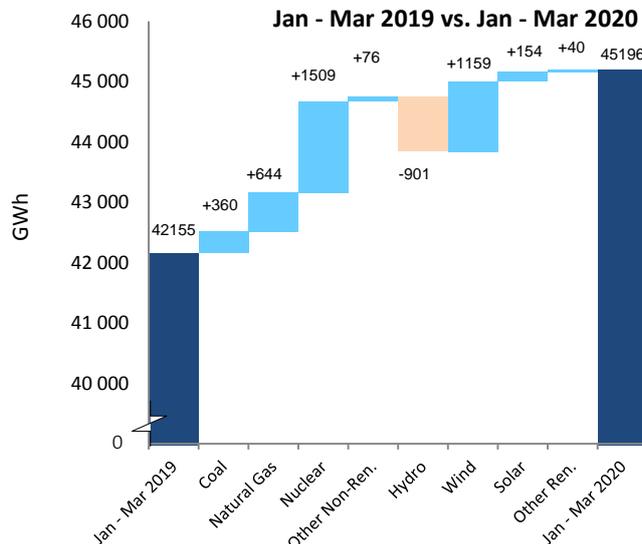
Electricity Production by Fuel



Low-carbon Power Jan - Mar



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



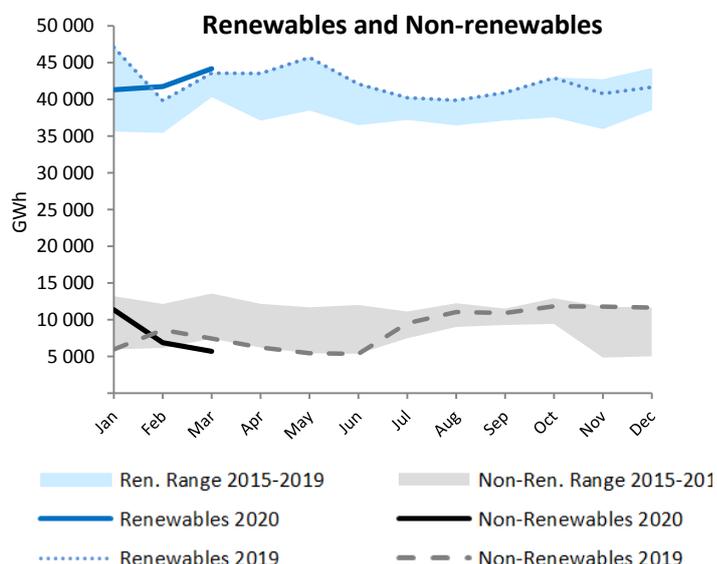
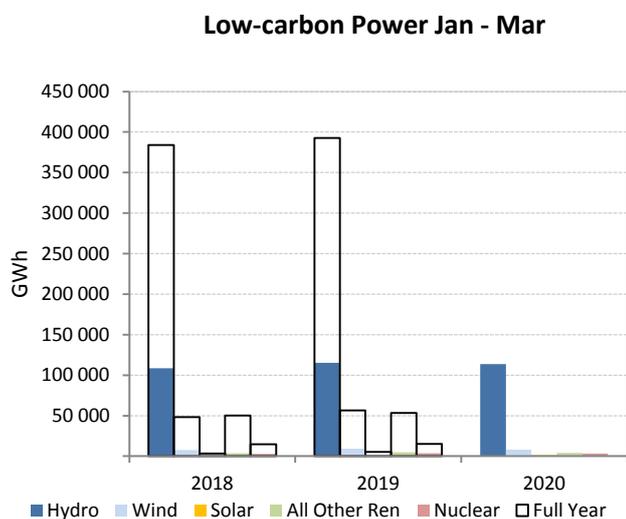
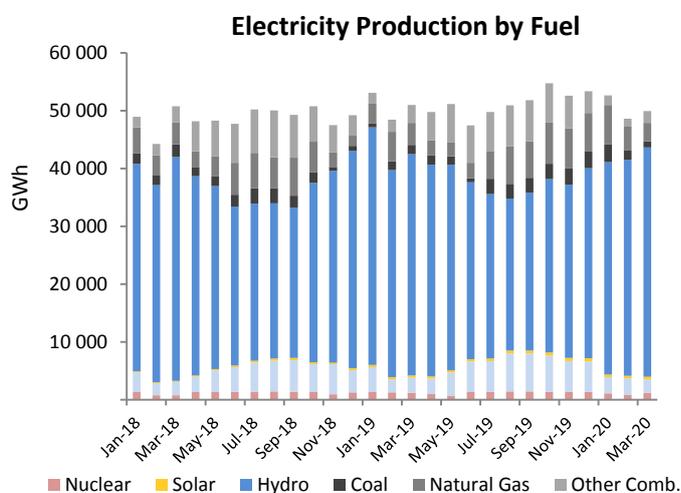
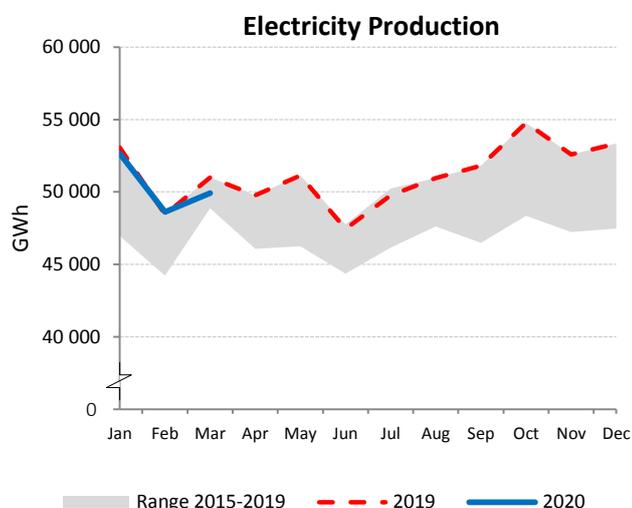
# BRAZIL

|                             | Mar 2020      |                     |                     |              | Year-to-Date   |                |                     | 2019           |              |
|-----------------------------|---------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|----------------|--------------|
|                             | GWh           | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh            | share        |
| <b>CONVENTIONAL THERMAL</b> | <b>6 283</b>  | <b>-26.2%</b>       | <b>-12.0%</b>       | <b>12.6%</b> | <b>24 991</b>  | <b>23 205</b>  | <b>7.7%</b>         | <b>144 144</b> | <b>23.5%</b> |
| Coal                        | 1 081         | -32.5%              | -36.1%              | 2.2%         | 5 806          | 3 910          | 48.5%               | 23 772         | 3.9%         |
| Oil                         | 273           | -66.5%              | 1.6%                | 0.5%         | 901            | 2 067          | -56.4%              | 8 672          | 1.4%         |
| Natural Gas                 | 3 173         | -16.7%              | -21.8%              | 6.4%         | 14 105         | 12 250         | 15.1%               | 58 198         | 9.5%         |
| Combustible Renewables      | 1 756         | -23.1%              | 55.8%               | 3.5%         | 4 179          | 4 979          | -16.1%              | 53 503         | 8.7%         |
| Other Combustibles          | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| <b>Nuclear</b>              | <b>1 200</b>  | <b>-0.4%</b>        | <b>35.1%</b>        | <b>2.4%</b>  | <b>3 178</b>   | <b>3 798</b>   | <b>-16.3%</b>       | <b>15 261</b>  | <b>2.5%</b>  |
| <b>Hydro</b>                | <b>39 655</b> | <b>3.6%</b>         | <b>6.3%</b>         | <b>79.4%</b> | <b>113 650</b> | <b>115 139</b> | <b>-1.3%</b>        | <b>392 872</b> | <b>64.0%</b> |
| Wind                        | 2 277         | -13.4%              | -19.3%              | 4.6%         | 7 927          | 9 258          | -14.4%              | 56 531         | 9.2%         |
| Solar                       | 510           | 29.2%               | 8.3%                | 1.0%         | 1 462          | 1 115          | 31.2%               | 5 322          | 0.9%         |
| Geothermal                  | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| Other Renewables            | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| Non-Specified               | -             | -                   | -                   | -            | -              | -              | -                   | -              | -            |
| <b>RENEWABLES</b>           | <b>44 198</b> | <b>1.4%</b>         | <b>5.9%</b>         | <b>88.5%</b> | <b>127 219</b> | <b>130 491</b> | <b>-2.5%</b>        | <b>508 228</b> | <b>82.8%</b> |
| <b>NON-RENEWABLES</b>       | <b>5 727</b>  | <b>-22.9%</b>       | <b>-17.0%</b>       | <b>11.5%</b> | <b>23 990</b>  | <b>22 024</b>  | <b>8.9%</b>         | <b>105 902</b> | <b>17.2%</b> |
| <b>TOTAL NET PRODUCTION</b> | <b>49 924</b> | <b>-2.1%</b>        | <b>2.7%</b>         |              | <b>151 209</b> | <b>152 516</b> | <b>-0.9%</b>        | <b>614 131</b> |              |

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

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

<sup>3</sup> year-to-date compared to same period last year



# CHINA

|                                     | Mar 2020       |                     |                     |              | Year-to-Date     |                  |                     | 2019             |              |
|-------------------------------------|----------------|---------------------|---------------------|--------------|------------------|------------------|---------------------|------------------|--------------|
|                                     | GWh            | change <sup>1</sup> | change <sup>2</sup> | share        | 2020             | 2019             | change <sup>3</sup> | GWh              | share        |
| <b>CONVENTIONAL THERMAL</b>         | <b>374 270</b> | <b>-7.7%</b>        | <b>13.5%</b>        | <b>67.6%</b> | <b>1 119 433</b> | <b>1 227 366</b> | <b>-8.8%</b>        | <b>4 989 960</b> | <b>69.5%</b> |
| Coal <sup>4</sup>                   | 351 852        | -7.7%               | 13.5%               | 63.6%        | 1 052 381        | 1 152 882        | -8.7%               | 4 687 139        | 65.3%        |
| Oil <sup>4</sup>                    | 774            | -8.6%               | 13.5%               | 0.1%         | 2 316            | 2 564            | -9.7%               | 10 423           | 0.1%         |
| Natural Gas <sup>4</sup>            | 14 363         | -9.6%               | 13.5%               | 2.6%         | 42 960           | 48 064           | -10.6%              | 195 407          | 2.7%         |
| Combustible Renewables <sup>4</sup> | 6 231          | -7.7%               | 13.5%               | 1.1%         | 18 636           | 20 416           | -8.7%               | 83 003           | 1.2%         |
| Other Combustibles <sup>4</sup>     | 1 050          | -7.7%               | 13.5%               | 0.2%         | 3 141            | 3 441            | -8.7%               | 13 988           | 0.2%         |
| <b>Nuclear</b>                      | <b>29 244</b>  | <b>6.2%</b>         | <b>89.1%</b>        | <b>5.3%</b>  | <b>74 392</b>    | <b>74 030</b>    | <b>0.5%</b>         | <b>334 673</b>   | <b>4.7%</b>  |
| <b>Hydro</b>                        | <b>81 506</b>  | <b>-6.2%</b>        | <b>33.2%</b>        | <b>14.7%</b> | <b>209 109</b>   | <b>232 155</b>   | <b>-9.9%</b>        | <b>1 239 001</b> | <b>17.3%</b> |
| <b>Wind</b>                         | <b>45 811</b>  | <b>20.0%</b>        | <b>48.7%</b>        | <b>8.3%</b>  | <b>112 339</b>   | <b>102 059</b>   | <b>10.1%</b>        | <b>392 766</b>   | <b>5.5%</b>  |
| <b>Solar</b>                        | <b>22 524</b>  | <b>14.2%</b>        | <b>36.0%</b>        | <b>4.1%</b>  | <b>58 289</b>    | <b>48 430</b>    | <b>20.4%</b>        | <b>224 581</b>   | <b>3.1%</b>  |
| <b>Geothermal</b>                   | <b>10</b>      | <b>-2.1%</b>        | <b>-</b>            | <b>0.0%</b>  | <b>29</b>        | <b>29</b>        | <b>-2.1%</b>        | <b>118</b>       | <b>0.0%</b>  |
| <b>Other Renewables</b>             | <b>1</b>       | <b>0.5%</b>         | <b>-</b>            | <b>0.0%</b>  | <b>3</b>         | <b>3</b>         | <b>0.5%</b>         | <b>11</b>        | <b>0.0%</b>  |
| <b>Non-Specified</b>                | <b>-</b>       | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>         | <b>-</b>         | <b>-</b>            | <b>-</b>         | <b>-</b>     |
| <b>RENEWABLES</b>                   | <b>156 082</b> | <b>3.0%</b>         | <b>36.9%</b>        | <b>28.2%</b> | <b>398 404</b>   | <b>403 092</b>   | <b>-1.2%</b>        | <b>1 939 480</b> | <b>27.0%</b> |
| <b>NON-RENEWABLES</b>               | <b>397 283</b> | <b>-6.8%</b>        | <b>17.0%</b>        | <b>71.8%</b> | <b>1 175 189</b> | <b>1 280 980</b> | <b>-8.3%</b>        | <b>5 241 630</b> | <b>73.0%</b> |
| <b>TOTAL NET PRODUCTION</b>         | <b>553 365</b> | <b>-4.3%</b>        | <b>22.0%</b>        |              | <b>1 573 593</b> | <b>1 684 072</b> | <b>-6.6%</b>        | <b>7 181 110</b> |              |

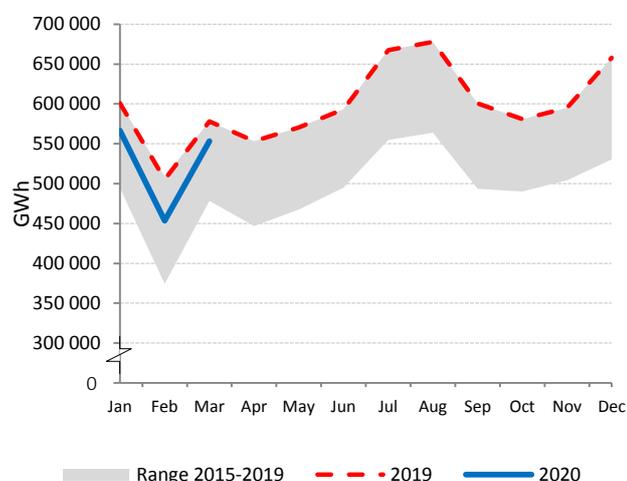
<sup>1</sup> current month to month of last year change

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

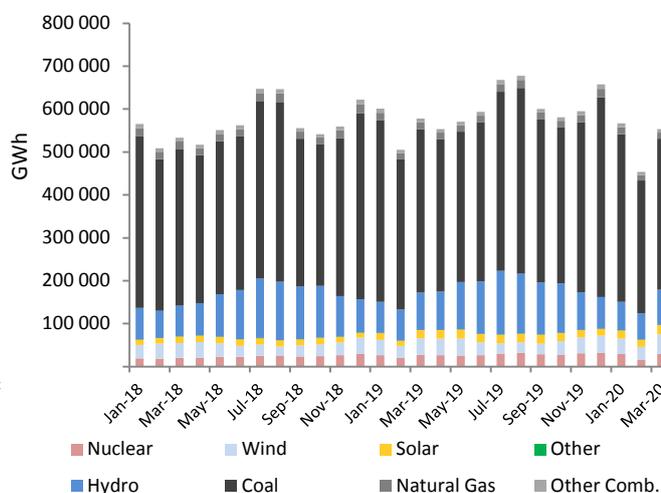
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

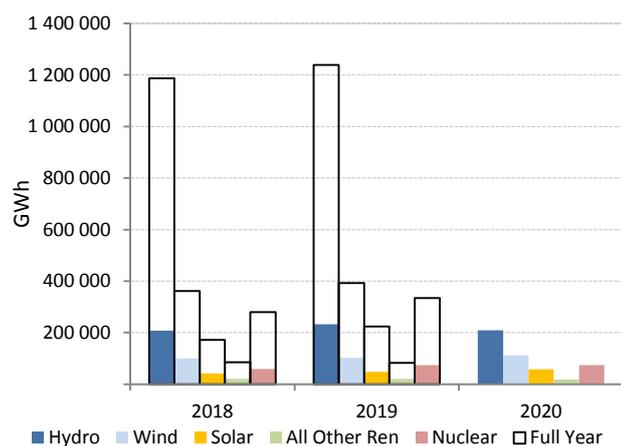
**Electricity Production**



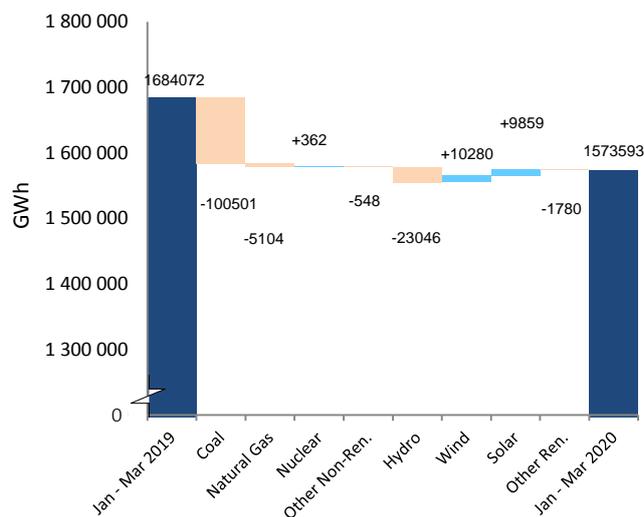
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



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



# CROATIA

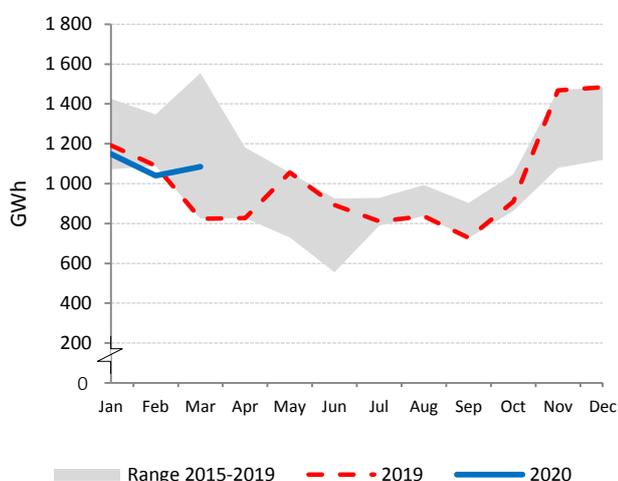
|                             | Mar 2020     |                     |                     |              | Year-to-Date |              |                     | 2019          |              |
|-----------------------------|--------------|---------------------|---------------------|--------------|--------------|--------------|---------------------|---------------|--------------|
|                             | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020         | 2019         | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b> | <b>360</b>   | <b>3.7%</b>         | <b>-28.9%</b>       | <b>33.2%</b> | <b>1 327</b> | <b>1 301</b> | <b>2.0%</b>         | <b>4 750</b>  | <b>39.2%</b> |
| Coal                        | 45           | -68.1%              | -66.9%              | 4.2%         | 237          | 403          | -41.1%              | 1 505         | 12.4%        |
| Oil                         | 2            | -                   | 100.7%              | 0.1%         | 2            | -            | -                   | 48            | 0.4%         |
| Natural Gas                 | 242          | 71.5%               | -20.4%              | 22.3%        | 877          | 715          | 22.7%               | 2 411         | 19.9%        |
| Combustible Renewables      | 72           | 10.5%               | 8.6%                | 6.7%         | 211          | 183          | 14.9%               | 785           | 6.5%         |
| Other Combustibles          | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>Nuclear</b>              | <b>-</b>     | <b>-</b>            | <b>-</b>            | <b>-</b>     | <b>-</b>     | <b>-</b>     | <b>-</b>            | <b>-</b>      | <b>-</b>     |
| <b>Hydro</b>                | <b>518</b>   | <b>62.0%</b>        | <b>30.6%</b>        | <b>47.8%</b> | <b>1 481</b> | <b>1 343</b> | <b>10.3%</b>        | <b>5 858</b>  | <b>48.3%</b> |
| <b>Wind</b>                 | <b>199</b>   | <b>33.0%</b>        | <b>52.0%</b>        | <b>18.3%</b> | <b>449</b>   | <b>448</b>   | <b>0.2%</b>         | <b>1 433</b>  | <b>11.8%</b> |
| <b>Solar</b>                | <b>7</b>     | <b>-6.6%</b>        | <b>47.1%</b>        | <b>0.6%</b>  | <b>15</b>    | <b>14</b>    | <b>1.9%</b>         | <b>78</b>     | <b>0.6%</b>  |
| Geothermal                  | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Other Renewables            | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| Non-Specified               | -            | -                   | -                   | -            | -            | -            | -                   | -             | -            |
| <b>RENEWABLES</b>           | <b>796</b>   | <b>46.9%</b>        | <b>33.0%</b>        | <b>73.4%</b> | <b>2 156</b> | <b>1 988</b> | <b>8.4%</b>         | <b>8 156</b>  | <b>67.3%</b> |
| <b>NON-RENEWABLES</b>       | <b>288</b>   | <b>2.2%</b>         | <b>-34.6%</b>       | <b>26.6%</b> | <b>1 117</b> | <b>1 118</b> | <b>-0.1%</b>        | <b>3 964</b>  | <b>32.7%</b> |
| <b>TOTAL NET PRODUCTION</b> | <b>1 084</b> | <b>31.6%</b>        | <b>4.3%</b>         |              | <b>3 272</b> | <b>3 106</b> | <b>5.3%</b>         | <b>12 120</b> |              |

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

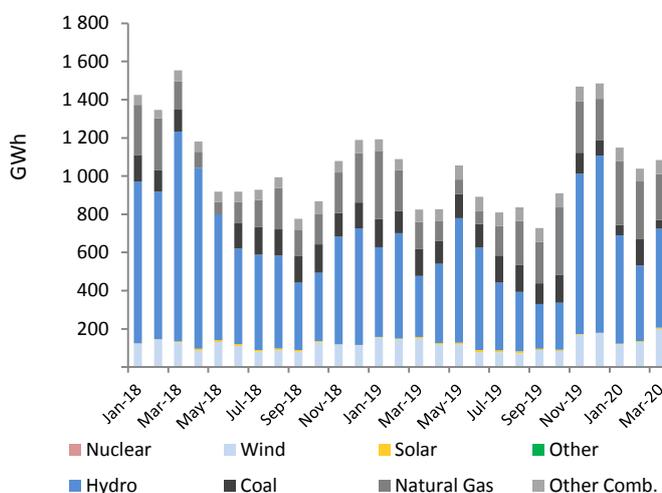
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

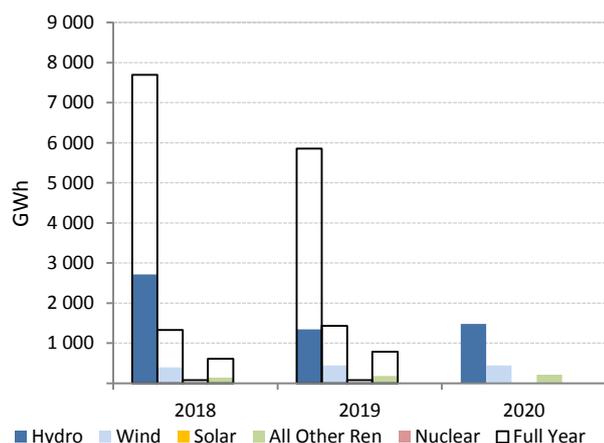
**Electricity Production**



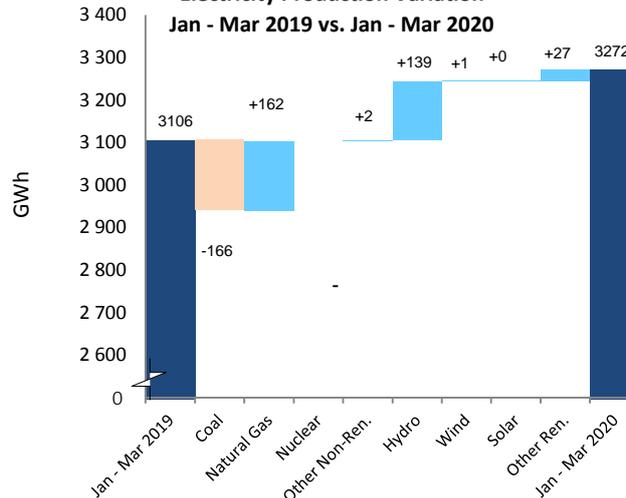
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



**Electricity Production Variation**



# INDIA

|                                 | Mar 2020       |                     |                     |              | Year-to-Date   |                |                     | 2019             |              |
|---------------------------------|----------------|---------------------|---------------------|--------------|----------------|----------------|---------------------|------------------|--------------|
|                                 | GWh            | change <sup>1</sup> | change <sup>2</sup> | share        | 2020           | 2019           | change <sup>3</sup> | GWh              | share        |
| <b>CONVENTIONAL THERMAL</b>     | <b>94 885</b>  | <b>-12.6%</b>       | <b>-7.4%</b>        | <b>80.5%</b> | <b>301 398</b> | <b>307 526</b> | <b>-2.0%</b>        | <b>1 178 854</b> | <b>78.8%</b> |
| Coal                            | 83 839         | -14.0%              | -8.4%               | 71.1%        | 268 670        | 273 270        | -1.7%               | 1 066 106        | 71.2%        |
| Oil <sup>4</sup>                | 659            | 16.0%               | 6.9%                | 0.6%         | 1 671          | 1 392          | 20.1%               | 6 351            | 0.4%         |
| Natural Gas                     | 5 964          | 15.2%               | 19.2%               | 5.1%         | 15 672         | 15 111         | 3.7%                | 66 557           | 4.4%         |
| Combustible Renewables          | 4 366          | -17.7%              | -17.0%              | 3.7%         | 15 209         | 17 577         | -13.5%              | 39 138           | 2.6%         |
| Other Combustibles <sup>4</sup> | 59             | -                   | -                   | 0.0%         | 176            | 176            | -                   | 703              | 0.0%         |
| <b>Nuclear</b>                  | <b>3 827</b>   | <b>20.8%</b>        | <b>27.8%</b>        | <b>3.2%</b>  | <b>10 066</b>  | <b>8 830</b>   | <b>14.0%</b>        | <b>42 497</b>    | <b>2.8%</b>  |
| <b>Hydro</b>                    | <b>10 019</b>  | <b>5.3%</b>         | <b>5.0%</b>         | <b>8.5%</b>  | <b>29 146</b>  | <b>25 425</b>  | <b>14.6%</b>        | <b>167 870</b>   | <b>11.2%</b> |
| <b>Wind</b>                     | <b>3 498</b>   | <b>14.6%</b>        | <b>-3.4%</b>        | <b>3.0%</b>  | <b>10 537</b>  | <b>9 059</b>   | <b>16.3%</b>        | <b>61 048</b>    | <b>4.1%</b>  |
| <b>Solar</b>                    | <b>5 696</b>   | <b>30.2%</b>        | <b>10.2%</b>        | <b>4.8%</b>  | <b>15 553</b>  | <b>11 470</b>  | <b>35.6%</b>        | <b>46 336</b>    | <b>3.1%</b>  |
| Geothermal                      | -              | -                   | -                   | -            | -              | -              | -                   | -                | -            |
| Other Renewables                | -              | -                   | -                   | -            | -              | -              | -                   | -                | -            |
| Non-Specified                   | -              | -                   | -                   | -            | -              | -              | -                   | -                | -            |
| <b>RENEWABLES</b>               | <b>23 579</b>  | <b>6.0%</b>         | <b>0.0%</b>         | <b>20.0%</b> | <b>70 445</b>  | <b>63 532</b>  | <b>10.9%</b>        | <b>314 392</b>   | <b>21.0%</b> |
| <b>NON-RENEWABLES</b>           | <b>94 346</b>  | <b>-11.4%</b>       | <b>-5.8%</b>        | <b>80.0%</b> | <b>296 255</b> | <b>298 779</b> | <b>-0.8%</b>        | <b>1 182 214</b> | <b>79.0%</b> |
| <b>TOTAL NET PRODUCTION</b>     | <b>117 926</b> | <b>-8.4%</b>        | <b>-4.7%</b>        |              | <b>366 700</b> | <b>362 311</b> | <b>1.2%</b>         | <b>1 496 606</b> |              |

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

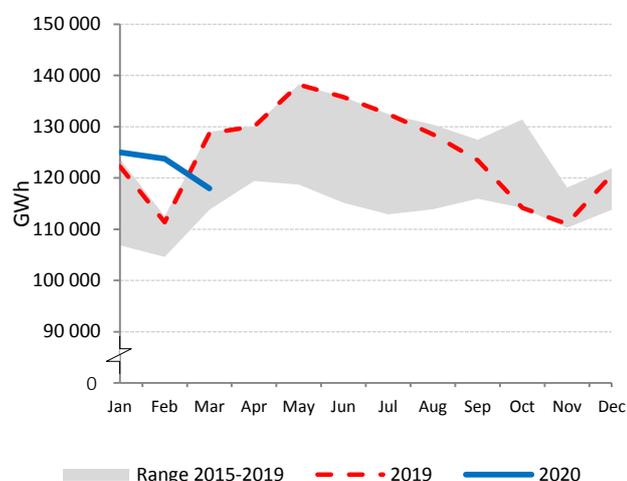
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

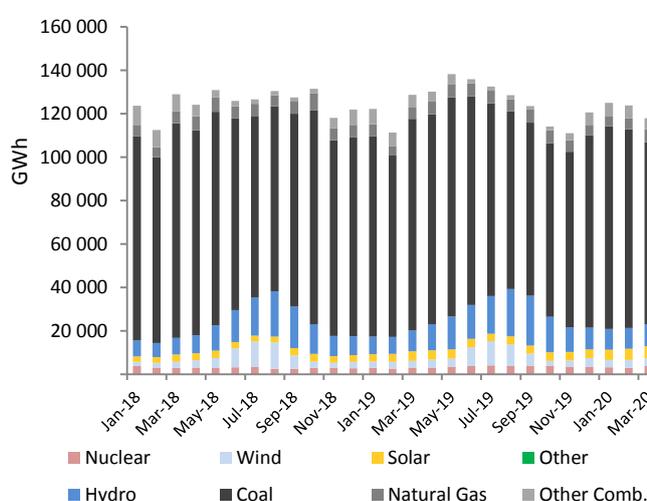
<sup>4</sup> estimated from annual data

Distributed generation is estimated by the IEA Secretariat

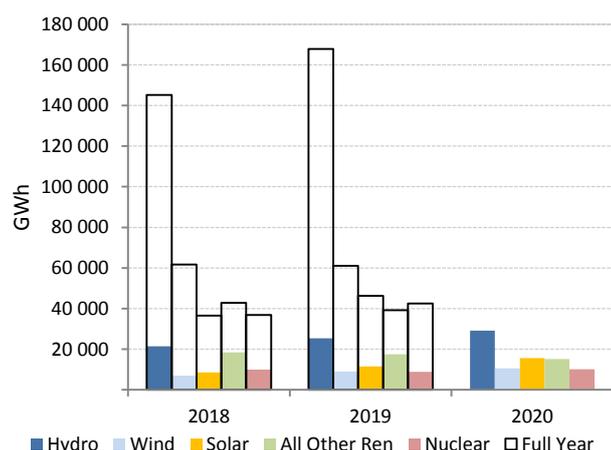
**Electricity Production**



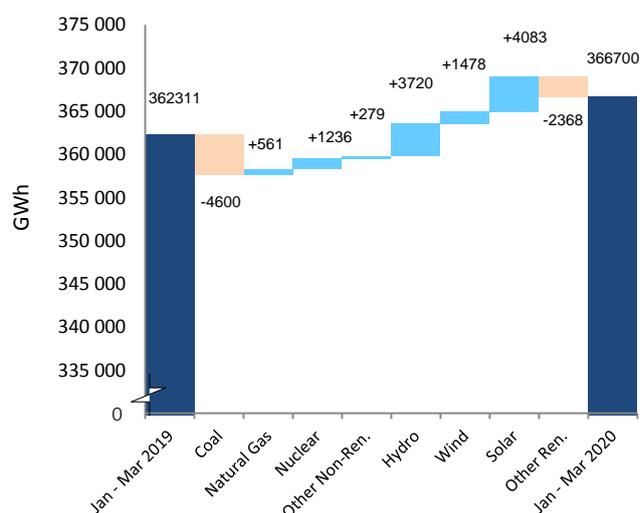
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



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



# ROMANIA

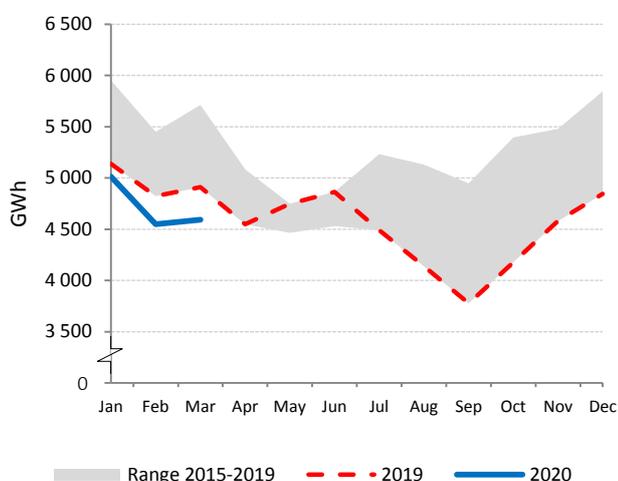
|                             | Mar 2020     |                     |                     |              | Year-to-Date  |               |                     | 2019          |              |
|-----------------------------|--------------|---------------------|---------------------|--------------|---------------|---------------|---------------------|---------------|--------------|
|                             | GWh          | change <sup>1</sup> | change <sup>2</sup> | share        | 2020          | 2019          | change <sup>3</sup> | GWh           | share        |
| <b>CONVENTIONAL THERMAL</b> | <b>1 354</b> | <b>-24.5%</b>       | <b>-19.5%</b>       | <b>29.5%</b> | <b>5 272</b>  | <b>6 238</b>  | <b>-15.5%</b>       | <b>20 498</b> | <b>37.2%</b> |
| Coal                        | 685          | -33.5%              | 6.6%                | 14.9%        | 2 261         | 3 123         | -27.6%              | 11 848        | 21.5%        |
| Oil                         | 14           | -                   | 25.0%               | 0.3%         | 35            | 98            | -64.7%              | 197           | 0.4%         |
| Natural Gas                 | 601          | -14.6%              | -38.2%              | 13.1%        | 2 807         | 2 880         | -2.6%               | 7 978         | 14.5%        |
| Combustible Renewables      | 54           | 20.0%               | -3.2%               | 1.2%         | 170           | 137           | 23.7%               | 474           | 0.9%         |
| Other Combustibles          | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>Nuclear</b>              | <b>970</b>   | <b>2.8%</b>         | <b>6.8%</b>         | <b>21.1%</b> | <b>2 847</b>  | <b>2 742</b>  | <b>3.8%</b>         | <b>10 346</b> | <b>18.8%</b> |
| <b>Hydro</b>                | <b>1 275</b> | <b>-4.1%</b>        | <b>20.6%</b>        | <b>27.8%</b> | <b>3 427</b>  | <b>3 455</b>  | <b>-0.8%</b>        | <b>15 715</b> | <b>28.6%</b> |
| <b>Wind</b>                 | <b>846</b>   | <b>28.6%</b>        | <b>5.8%</b>         | <b>18.4%</b> | <b>2 278</b>  | <b>2 095</b>  | <b>8.7%</b>         | <b>6 701</b>  | <b>12.2%</b> |
| <b>Solar</b>                | <b>146</b>   | <b>-20.8%</b>       | <b>42.2%</b>        | <b>3.2%</b>  | <b>330</b>    | <b>340</b>    | <b>-3.0%</b>        | <b>1 777</b>  | <b>3.2%</b>  |
| Geothermal                  | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Other Renewables            | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| Non-Specified               | -            | -                   | -                   | -            | -             | -             | -                   | -             | -            |
| <b>RENEWABLES</b>           | <b>2 321</b> | <b>4.7%</b>         | <b>15.1%</b>        | <b>50.6%</b> | <b>6 204</b>  | <b>6 028</b>  | <b>2.9%</b>         | <b>24 668</b> | <b>44.8%</b> |
| <b>NON-RENEWABLES</b>       | <b>2 270</b> | <b>-15.7%</b>       | <b>-10.4%</b>       | <b>49.4%</b> | <b>7 949</b>  | <b>8 843</b>  | <b>-10.1%</b>       | <b>30 369</b> | <b>55.2%</b> |
| <b>TOTAL NET PRODUCTION</b> | <b>4 591</b> | <b>-6.5%</b>        | <b>0.9%</b>         |              | <b>14 154</b> | <b>14 871</b> | <b>-4.8%</b>        | <b>55 037</b> |              |

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

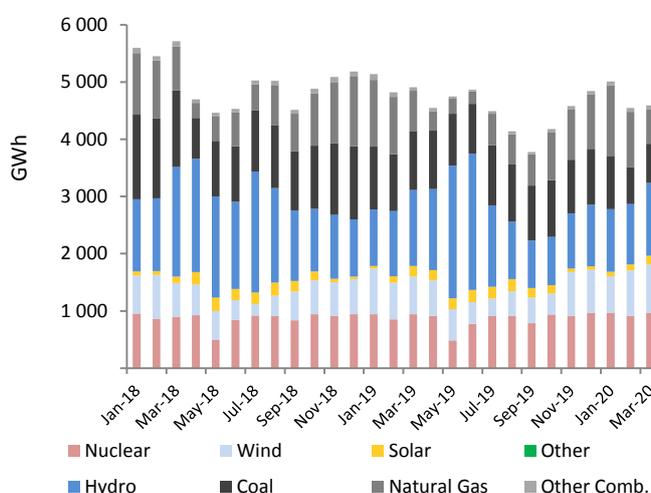
<sup>2</sup> month-to-month change

<sup>3</sup> year-to-date compared to same period last year

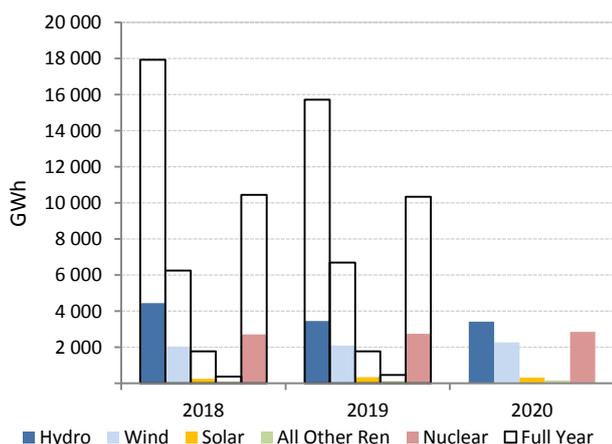
**Electricity Production**



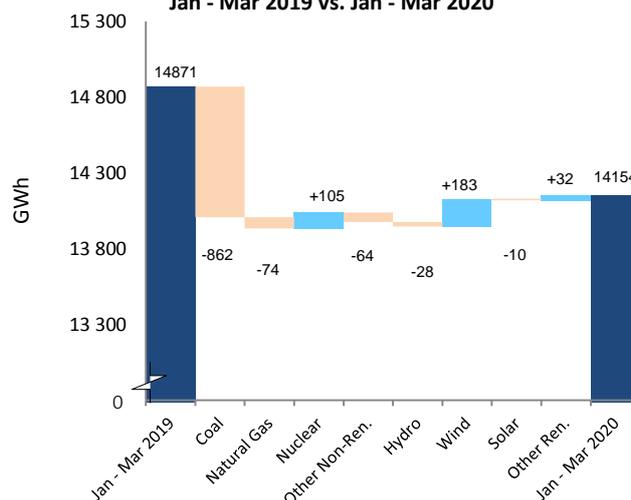
**Electricity Production by Fuel**



**Low-carbon Power Jan - Mar**



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



## PRINCIPLES AND DEFINITIONS

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

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

### General notes

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

### Basic definitions

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

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

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

## Regional Groupings

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

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

#### HUNGARY

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

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

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

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

#### ICELAND

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

#### IRELAND

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

#### ITALY

Includes San Marino and the Vatican.

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

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

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

#### JAPAN

Monthly data are adjusted according to data submitted on a fiscal year basis beginning 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 reported in the coal category if it's co-fired with this fuel, and in combustible renewables if the combustion is mono-fuel.

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

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

#### KOREA

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

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

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

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

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

#### LATVIA

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

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

#### LITHUANIA

Monthly data available since January 2008.

#### LUXEMBOURG

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

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

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

#### MEXICO

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

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

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

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

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

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

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

#### NETHERLANDS

Excludes Suriname and the territory of the Former Netherlands Antilles.

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

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

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

#### NEW ZEALAND

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

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

#### NORWAY

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

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

Natural gas figures for May and June 2018 are confidential.

#### POLAND

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

Oil figures are confidential since January 2017.

#### PORTUGAL

Includes the Açores and Madeira since January 2015.

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

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

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

#### SLOVAK REPUBLIC

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

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

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

#### SLOVENIA

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

#### SPAIN

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

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

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

#### SWEDEN

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

#### SWITZERLAND

Excludes Liechtenstein.

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

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

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

#### TURKEY

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

#### UNITED KINGDOM

Monthly reporting does not include production from other combustible fuels, therefore it is estimated by the IEA Secretariat based on annual submission since January 2001.  
 Monthly reporting did not include production from solar, therefore it is estimated by the IEA Secretariat based on annual submission from January 2001 until December 2009.  
 Monthly reporting did not include production from wind, therefore it was estimated by the IEA Secretariat based on annual submission from January 2001 until December 2006.  
 Monthly reporting did not include exports, therefore they were estimated by the IEA Secretariat based on annual submission from January 2001 until December 2002.

#### UNITED STATES

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

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

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

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

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

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

#### Selected Association countries and other non-OECD Economies

Monthly Electricity Statistics is consistent with historical annual data.

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

#### ARGENTINA

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

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

#### BRAZIL

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

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

#### CHINA

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

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

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

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

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

#### CROATIA

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

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

#### INDIA

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

Monthly data are adjusted according to data submitted on a fiscal year basis beginning 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.

# Statistics report

## Overall responsibility

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