# ENERGY PROFILE

## Mexico

### COUNTRY INDICATORS AND SDGS

#### TOTAL ENERGY SUPPLY (TES)

<table>
<thead>
<tr>
<th>Total Energy Supply (TES)</th>
<th>2014</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable (TJ)</td>
<td>7,207,975</td>
<td>7,022,027</td>
</tr>
<tr>
<td>Renewable (TJ)</td>
<td>744,107</td>
<td>757,149</td>
</tr>
<tr>
<td>Total (TJ)</td>
<td>7,952,082</td>
<td>7,779,177</td>
</tr>
</tbody>
</table>

Renewable share (%) 9

<table>
<thead>
<tr>
<th>Growth in TES</th>
<th>2014-19</th>
<th>2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable (%)</td>
<td>-2.6</td>
<td>-13</td>
</tr>
<tr>
<td>Renewable (%)</td>
<td>+18</td>
<td>-2.9</td>
</tr>
<tr>
<td>Total (%)</td>
<td>-2.2</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary energy trade</th>
<th>2014</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports (TJ)</td>
<td>2,482,431</td>
<td>4,308,973</td>
</tr>
<tr>
<td>Exports (TJ)</td>
<td>3,111,954</td>
<td>2,843,783</td>
</tr>
<tr>
<td>Net trade (TJ)</td>
<td>629,523</td>
<td>-1,465,190</td>
</tr>
</tbody>
</table>

| Imports (% of supply) | 31    |
| Exports (% of production) | 35    |
| Energy self-sufficiency (%) | 111   | 82    |

### Total energy supply in 2019

- Oil: 45%
- Gas: 37%
- Nuclear: 10%
- Coal + others: 6%
- Renewables: 2%

### Renewable energy supply in 2019

- Hydro/marine: 22%
- Wind: 13%
- Solar: 9%
- Bioenergy: 8%
- Geothermal: 48%
Renewable TFEC trend
- Electricity
- Commercial heat
- Bioenergy

Consumption by sector 2014 2019
Industry (TJ) 114 350 144 225
Transport (TJ) 605 788
Households (TJ) 287 517 301 754
Other (TJ) 32 500 48 677

Non-renewable
- 68 079 69
Renewable
- 30 036 31
- Hydro/marine 13 301 14
- Solar 7 043 7
- Wind 7 692 8
- Bioenergy 966 1
- Geothermal 1 034 1
Total 98 115 100

Capacity change (%)
- 2016-21 2020-21
Non-renewable + 27 0.0
Renewable + 57 + 11.4
- Hydro/marine + 6 0.0
- Solar + 1 013 + 36.3
- Wind + 90 + 18.3
- Bioenergy + 5 - 0.1
- Geothermal + 12 0.0
Total + 35 + 3.2

Installed capacity trend
- Fossil fuels
- Nuclear
- Other Non-RE
- Hydro/marine
- Wind
- Solar
- Bioenergy
- Geothermal
- Renewable share

Net capacity change in 2021 (MW)
- Non-renewable 0
- Solar + 1 877
- Wind + 1 188
- Bioenergy - 1
- Geothermal 0

Renewable capacity in 2021
- Hydro/marine 26%
- Solar 44%
- Wind 23%
- Bioenergy 9%
- Geothermal 3%

Net capacity change (GW)
- Fossil fuels
- Renewable

Capacity utilisation in 2020 (%)
### ELECTRICITY GENERATION

<table>
<thead>
<tr>
<th>Generation in 2020</th>
<th>GWh</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable</td>
<td>272 585</td>
<td>80</td>
</tr>
<tr>
<td>Renewable</td>
<td>66 858</td>
<td>20</td>
</tr>
<tr>
<td>Hydro and marine</td>
<td>26 817</td>
<td>8</td>
</tr>
<tr>
<td>Solar</td>
<td>13 528</td>
<td>4</td>
</tr>
<tr>
<td>Wind</td>
<td>19 701</td>
<td>6</td>
</tr>
<tr>
<td>Bioenergy</td>
<td>2 291</td>
<td>1</td>
</tr>
<tr>
<td>Geothermal</td>
<td>4 521</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>339 443</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### LATEST POLICIES, PROGRAMMES AND LEGISLATION

1. Draft standard PROY-NOM-014-ENER-2020, Energy efficiency of alternating current, single-phase, induction electric motors, squirrel cage type, cooled with air, in nominal power from 0.180 kW to 2.238 kW. Limits, testing method and labelling. 2021


4. Nationally Determined Contribution (NDC) to the Paris Agreement: Mexico 2021

5. NOM-031-ENER-2019: Energy efficiency of LED luminaires for roads and public outdoor areas. Specifications and testing methods 2021

### ENERGY AND EMISSIONS

#### Energy-related CO₂ emissions by sector

**Elec. & heat**

- 2015: 317 tCO₂/GWh
- 2016: 317 tCO₂/GWh
- 2017: 318 tCO₂/GWh
- 2018: 355 tCO₂/GWh
- 2019: 340 tCO₂/GWh
- 2020: 339 tCO₂/GWh

**Other Industrial**

- 2015: 26 tCO₂/GWh
- 2016: 26 tCO₂/GWh
- 2017: 26 tCO₂/GWh
- 2018: 26 tCO₂/GWh
- 2019: 26 tCO₂/GWh
- 2020: 26 tCO₂/GWh

**Transport**

- 2015: 26 tCO₂/GWh
- 2016: 26 tCO₂/GWh
- 2017: 26 tCO₂/GWh
- 2018: 26 tCO₂/GWh
- 2019: 26 tCO₂/GWh
- 2020: 26 tCO₂/GWh

**Other**

- 2015: 26 tCO₂/GWh
- 2016: 26 tCO₂/GWh
- 2017: 26 tCO₂/GWh
- 2018: 26 tCO₂/GWh
- 2019: 26 tCO₂/GWh
- 2020: 26 tCO₂/GWh

**Buildings**

- 2015: 26 tCO₂/GWh
- 2016: 26 tCO₂/GWh
- 2017: 26 tCO₂/GWh
- 2018: 26 tCO₂/GWh
- 2019: 26 tCO₂/GWh
- 2020: 26 tCO₂/GWh

**Avoided emissions from renewable elec. & heat**

- 2015: 467 tCO₂/GWh
- 2016: 467 tCO₂/GWh
- 2017: 467 tCO₂/GWh
- 2018: 467 tCO₂/GWh
- 2019: 467 tCO₂/GWh
- 2020: 467 tCO₂/GWh

**CO₂ emission factor for elec. & heat generation**

- MEX: 2021

**World**

- 2015: 368 tCO₂/GWh
- 2016: 368 tCO₂/GWh
- 2017: 368 tCO₂/GWh
- 2018: 368 tCO₂/GWh
- 2019: 368 tCO₂/GWh
- 2020: 368 tCO₂/GWh

Calculating CO₂ emissions from electricity generation.

### Avoided emissions based on fossil fuel mix used for power
Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity (kWh/kWp/yr). The bar chart shows the proportion of a country’s land area in each of these classes and the global distribution of land area across the classes (for comparison).

Onshore wind: Potential wind power density (W/m²) is shown in the seven classes used by NREL, measured at a height of 100m. The bar chart shows the distribution of the country’s land area in each of these classes compared to the global distribution of wind resources. Areas in the third class or above are considered to be a good wind resource.

Biomass: Net primary production (NPP) is the amount of carbon fixed by plants and accumulated as biomass each year. It is a basic measure of biomass productivity. The chart shows the average NPP in the country (tC/ha/yr), compared to the global average NPP of 3-4 tonnes of carbon.