**Energy Profile**

**Mexico**

### Total Energy Supply (TES)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable (TJ)</td>
<td>7,089,020</td>
<td>6,709,689</td>
</tr>
<tr>
<td>Renewable (TJ)</td>
<td>739,521</td>
<td>812,220</td>
</tr>
<tr>
<td>Total (TJ)</td>
<td>7,828,541</td>
<td>7,521,909</td>
</tr>
<tr>
<td>Renewable share (%)</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

**Growth in TES**

<table>
<thead>
<tr>
<th></th>
<th>2015-20</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable (%)</td>
<td>-5.4</td>
<td>-4.4</td>
</tr>
<tr>
<td>Renewable (%)</td>
<td>+9.8</td>
<td>+6.0</td>
</tr>
<tr>
<td>Total (%)</td>
<td>-3.9</td>
<td>-3.4</td>
</tr>
</tbody>
</table>

### Primary energy trade

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports (TJ)</td>
<td>2,953,941</td>
<td>4,284,551</td>
</tr>
<tr>
<td>Exports (TJ)</td>
<td>3,024,678</td>
<td>2,938,217</td>
</tr>
<tr>
<td>Net trade (TJ)</td>
<td>70,737</td>
<td>-1,366,334</td>
</tr>
<tr>
<td>Imports (% of supply)</td>
<td>38</td>
<td>57</td>
</tr>
<tr>
<td>Exports (% of production)</td>
<td>38</td>
<td>46</td>
</tr>
<tr>
<td>Energy self-sufficiency (%)</td>
<td>103</td>
<td>84</td>
</tr>
</tbody>
</table>
### ENERGY AND EMISSIONS

#### LATEST POLICIES, PROGRAMMES AND LEGISLATION

1. **2022 Package against inflation & famine - Transport fuel and power subsidies**

2. **General Law of Climate Change (Mexico)**

3. **Nationally Determined Contribution (NDC) to the Paris Agreement (2022 Update) - Mexico**

4. **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.**

5. **Draft standard PROY-NOM-022-ENER/SE-2020, Energy efficiency and user safety requirements for self-contained commercial refrigeration appliances. Limits, testing methods and labeling.**

#### ELECTRICITY GENERATION

<table>
<thead>
<tr>
<th>Generation in 2021</th>
<th>GWh</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable</td>
<td>306 881</td>
<td>79</td>
</tr>
<tr>
<td>Renewable</td>
<td>819 024</td>
<td>21</td>
</tr>
<tr>
<td>Hydro and marine</td>
<td>34 717</td>
<td>9</td>
</tr>
<tr>
<td>Solar</td>
<td>20 254</td>
<td>5</td>
</tr>
<tr>
<td>Wind</td>
<td>210 755</td>
<td>5</td>
</tr>
<tr>
<td>Bioenergy</td>
<td>16 243</td>
<td>0</td>
</tr>
<tr>
<td>Geothermal</td>
<td>4 243</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>388 783</td>
<td>100</td>
</tr>
</tbody>
</table>

### LATEST POLICIES, PROGRAMMES AND LEGISLATION

#### ENERGY AND EMISSIONS

####避免来自可再生能源的温室气体排放

- **Merred CO₂**
- **RE Avoided CO₂**

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

Calculated by dividing power sector emissions by elec. + heat gen.

### LATEST POLICIES, PROGRAMMES AND LEGISLATION

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

- **Elected CO₂**
- **RE Avoided CO₂**

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

Calculated by dividing power sector emissions by elec. + heat gen.

### ELECTRICITY GENERATION

#### Energy-related CO₂ emissions by sector

- **Elec. & heat**
- **Other Industrial**
- **Transport**
- **Other**
- **Buildings**

#### Elect. & heat generation CO₂ emissions in

- **Coal + others**
- **Gas**
- **Oil**

- **3%**
- **53%**
- **114 Mt CO₂**
RENEWABLE RESOURCE POTENTIAL

Distribution of solar potential

- World
- Mexico

Distribution of wind potential

- World
- Mexico

Biomass potential: net primary production

- 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 100 m. 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.

Indicators of renewable resource potential

Solar PV

Wind power density at 100m height (W/m²)

- <260
- 260-420
- 420-560
- 560-670
- 670-820
- 820-1060
- >1060

Proportion of land area

- <12
- 12-14
- 14-16
- 16-18
- 18-19
- >19

Annual generation per unit of installed PV capacity (MWh/kWp)

- <260
- 260-420
- 420-560
- 560-670
- 670-820
- 820-1060
- >1060

Proportion of land area

Sources: IRENA statistics, plus data from the following sources: UN SDG Database (original sources: WHO; World Bank; IEA; IRENA; and UNSD); UN World Population Prospects; UNSD Energy Balances; UN COMTRADE; World Bank World Development Indicators; EDGAR; REN21 Global Status Report; IEA–IRENA Joint Policies and Measures Database; IRENA Global Atlas; and World Bank Global Solar Atlas and Global Wind Atlas.

Additional notes: Capacity per capita and public investments SDGs only apply to developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760 h/year. Avoided emissions from renewable power is calculated as renewable generation divided by fossil fuel generation multiplied by reported emissions from the power sector. This assumes that, if renewable power did not exist, fossil fuels would be used in its place to generate the same amount of power and using the same mix of fossil fuels. In countries and years where no fossil fuel generation occurs, an average fossil fuel emission factor has been used to calculate the avoided emissions.

These profiles have been produced to provide an overview of developments in renewable energy in different countries and areas. The IRENA statistics team would welcome comments and feedback on its structure and content, which can be sent to statistics@irena.org.

Last updated on: 8th August, 2023