## ENERGY PROFILE

### Iceland

#### COUNTRY INDICATORS AND SDGS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2014</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita</td>
<td>53.5</td>
<td>53.5</td>
</tr>
<tr>
<td>Real GDP growth rate</td>
<td>8%</td>
<td>0%</td>
</tr>
</tbody>
</table>

#### TOTAL ENERGY SUPPLY (TES)

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>2014</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable (TJ)</td>
<td>27 055</td>
<td>28 110</td>
</tr>
<tr>
<td>Renewable (TJ)</td>
<td>275 224</td>
<td>328 849</td>
</tr>
<tr>
<td>Total (TJ)</td>
<td>302 279</td>
<td>356 959</td>
</tr>
</tbody>
</table>

| Renewable share (%) | 91 | 92 |

<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>+3.9</td>
<td>-2.2</td>
</tr>
<tr>
<td>Renewable (%)</td>
<td>+19.5</td>
<td>-11</td>
</tr>
<tr>
<td>Total (%)</td>
<td>+18.1</td>
<td>-12</td>
</tr>
</tbody>
</table>

#### Primary energy trade

<table>
<thead>
<tr>
<th>Trade Type</th>
<th>2014</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports (TJ)</td>
<td>35 610</td>
<td>43 122</td>
</tr>
<tr>
<td>Exports (TJ)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net trade (TJ)</td>
<td>- 35 610</td>
<td>- 43 122</td>
</tr>
</tbody>
</table>

| Imports (% of supply) | 12 | 12 |
| Exports (% of production) | 0 | 0 |
| Energy self-sufficiency (%) | 91 | 92 |

#### Total energy supply in 2019

- **Oil:** 7%
- **Gas:** 7%
- **Nuclear:** 92%
- **Coal + others:** 0%
- **Renewables:** 0%

#### Renewable energy supply in 2019

- **Hydro/marine:** 85%
- **Wind:** 0%
- **Solar:** 0%
- **Bioenergy:** 0%
- **Geothermal:** 0%
### Consumption by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>2014 (TJ)</th>
<th>2019 (TJ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>56 548</td>
<td>53 661</td>
</tr>
<tr>
<td>Transport</td>
<td>149</td>
<td>849</td>
</tr>
<tr>
<td>Households</td>
<td>3 712</td>
<td>3 453</td>
</tr>
<tr>
<td>Other</td>
<td>8 809</td>
<td>11 094</td>
</tr>
</tbody>
</table>

### Non-renewable

- 2014: 116 TJ
- 2019: 4 TJ

### Renewable Energy Consumption in 2019

- Geothermal: 6%
- Solar: 16%
- Wind: 5%
- Hydro/marine: 78%
- Total: 100%

### Capacity utilisation in 2020 (%)

- Geothermal: 94%
- Solar: 36%
- Wind: 9%
- Bioenergy: 71%
- Nuclear: 0%

### Renewable Energy Consumption (TFEC)

- Electricity
- Commercial heat
- Bioenergy

### Installed capacity trend

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

### Renewable capacity in 2021

- Hydro/marine: 26%
- Solar: 73%
- Wind: 0%
- Bioenergy: 0%
- Geothermal: 0%

### Net capacity change (GW)

- Fossil fuels: 2.2 GW
- Renewable: 0.2 GW

### Capacity utilisation in 2020 (%)

- Fossil fuels: 0%
- Nuclear: 71%
- Hydro/Marine: 9%
- Solar: 36%
- Bioenergy: 71%
- Geothermal: 90%
### ELECTRICITY GENERATION

<table>
<thead>
<tr>
<th>Source</th>
<th>GWh</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-renewable</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Renewable</td>
<td>19 130</td>
<td>100</td>
</tr>
<tr>
<td>Hydro and marine</td>
<td>13 157</td>
<td>69</td>
</tr>
<tr>
<td>Solar</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Wind</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Bioenergy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Geothermal</td>
<td>5 961</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19 133</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Per capita electricity generation (kWh)

- **Total**
- **Renewable**

### LATEST POLICIES, PROGRAMMES AND LEGISLATION

1. Ownership tax
2. Parking exemption - Reykjavik
3. Parking exemption Akureyri
4. VAT exemption ISL
5. Commodity tax

### ENERGY AND EMISSIONS

**Energy-related CO₂ emissions by sector**

- Elect. & heat
- Other Industrial
- Transport
- Other
- Buildings

**Elec. & heat generation CO₂ emissions in Mt CO₂**

- Coal + others
- Gas
- Oil

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

- ISL
- Europe
- World

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

- Emitted CO₂
- RE Avoided CO₂

Avoided emissions based on fossil fuel mix used for power

Calculated by dividing power sector emissions by elec. + heat gen.
<p><strong>Biomass potential: net primary production</strong></p>

- 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.<br><br><strong>Sources:</strong> IRENA statistics, plus data from the following sources: UN SDG Database (original sources: WHO, World Bank, IAEA, IRENA, and UNSD); UN World Population Prospects; UN 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.<br><br><strong>Additional notes:</strong> 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.<br><br>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.<br><br>Last updated on: 24th August, 2022