### 10 FACTS ON LIGNITE

1. Lignite is and continues to be the only fossil fuel in Germany which does not have to be imported. It is abundantly available, and it is extracted without subsidies.

2. With a total output of about 166 mt (2018), lignite makes a significant contribution to a safe and secure energy and power supply. With an electric power production of about 145 TWh from secure generation capacities that are constantly available, lignite-fired power plants are indispensable in supplying energy to industry, commerce, and private households, and they will continue to do so for many years to come.

3. According to the recommendations of the Structural Commission appointed by the Federal Government, the extraction of lignite and its conversion into electricity in Germany are to end in 2038. Until this point in time and given that there is assured and guaranteed planning and investment security, lignite will continue to be important for the energy supply and development in the individual mining districts.

4. The termination of lignite utilization, which will be earlier than had previously been anticipated and planned by the companies, requires reasonable compensation payments as well as extensive financial aid in order to implement the structural change in the mining districts.

5. Guaranteeing a secure and reliable standby, as was agreed between the lignite industry and the Federal Government, will result in a 2.7 GW decrease in the lignite-based electricity production capacity by 2022 and in savings of about 14 mt of CO\(_2\) by 2020.

6. German lignite accounts for less than 0.5 % of the global CO\(_2\) emissions. A national abandonment will not have any sustainable impact on the anthropogenic influences on climate change.

7. Modern lignite-fired power plants are as flexible as combined cycle power plants (CCPP); they provide system services to compensate for the fluctuating grid feeding and network supply of wind turbines and PV plants.

8. The recultivation efforts following lignite mining are considered to be exemplary around the entire globe, compensate for mining-related, limited land utilization, and create new cultural and natural environments.

9. The close technical and local combination of open-pit mines and power plants provides maximum security, economic efficiency, and value creation.

10. Lignite safeguards and assures around 70,000 jobs in Germany. The fossil fuel phaseout recommended by the Structural Commission will lead to massive job reductions in mines and power plants as well as among suppliers and service providers. In addition, increasing electricity prices will threaten jobs in energy-intensive industries.
### Lignite Production According to Mining Areas

- **Rhineland**: 86.3 mt
- **Lusatia**: 60.7 mt
- **Central Germany**: 19.2 mt

**Total**: 166.3 mt

### Participation Ratios of the Lignite Companies

- **RWE Power AG**
  - **RHEILAND**
  - **Lusatia**
  - **Central Germany**
  - **Helmstedt**

### Capacity and Generation of Lignite Powerstations

**Federal State**

<table>
<thead>
<tr>
<th>Gross installed power Jan. 1, 2019</th>
<th>Gross electricity generation 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Rhine-Westphalia</strong> 11,489</td>
<td>72.0 MW</td>
</tr>
<tr>
<td><strong>Brandenburg</strong> 4,705</td>
<td>33.9 MW</td>
</tr>
<tr>
<td><strong>Saxony</strong> 4,580</td>
<td>32.3 MW</td>
</tr>
<tr>
<td><strong>Saxony-Anhalt</strong> 1,221</td>
<td>7.2 MW</td>
</tr>
<tr>
<td><strong>Lower Saxony</strong> 407</td>
<td>0.1 MW</td>
</tr>
<tr>
<td><strong>Hesse</strong> 42</td>
<td></td>
</tr>
<tr>
<td><strong>Bavaria</strong> 2</td>
<td></td>
</tr>
<tr>
<td><strong>Baden-Wuerttemberg</strong> 2</td>
<td></td>
</tr>
</tbody>
</table>

**Total**: 22,448 MW

### Share of Domestic Output in Primary Consumption 2018*

- **Oil**: 98%
- **Natural gas**: 94%
- **Hard Coal**: 94%
- **Lignite**: 61.7%
- **Renewables**: 151.6%

1) Deviations between production and utilisation caused by change in stocking and deliveries between the mining areas
2) Without deliveries to other lignite companies

### Primary Energy Consumption

**2005** 2015 2018 $^1$ 2018%

<table>
<thead>
<tr>
<th>Others</th>
<th>Renewables</th>
<th>Natural gas</th>
<th>Hard Coal</th>
<th>Nuclear energy</th>
<th>Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.5%</td>
<td>33.5%</td>
<td>33.5%</td>
<td>10.0%</td>
<td>0.0%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

**Total gross electricity generation**

- **2005**: 226.4 TWh
- **2015**: 648.1 TWh
- **2018**: 760.8 TWh

1) provisional/forecast

### Total Lignite Production

- **2018**
  - **North Rhine-Westphalia**: 75.8 million tons
  - **Brandenburg**: 56.9 million tons
  - **Saxony**: 18.0 million tons
  - **Helmstedt**: -

**Total**: 150.7 million tons

1) provisional/forecast

* Source: Arbeitsgemeinschaft Energiebilanzen

---

* Source: Arbeitsgemeinschaft Energiebilanzen