THE DECLINING ROLE OF COAL
IN THE NEW ENERGY POLICY
OF THE CZECH REPUBLIC

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Vice-chair of Bureau October 2015

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Brown Coal, production is decreasing:

<table>
<thead>
<tr>
<th>Total, tons</th>
<th>Sorted, tons</th>
<th>Industrial, tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 176 507</td>
<td>2 547 669</td>
<td>35 628 838</td>
</tr>
</tbody>
</table>

The production of brown coal (by opencast mines) is in the long term gradually decreasing. Some parts of potential extraction is complicated by environmental and land access issues.

Hard Coal

<table>
<thead>
<tr>
<th>Total, tons</th>
<th>Coking coal, tons</th>
<th>Steam coal, tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 683 451</td>
<td>4 590 236</td>
<td>4 093 215</td>
</tr>
</tbody>
</table>

The production of hard coal (underground mining) is declining.
Brown coal production, long term development (in Mt/y)

Sharp decline, the stabilization and slow decline to 38 Mt/y
THE DECREASING ROLE OF COAL IN THE NEW ENERGY POLICY OF THE CZECH REPUBLIC

Hard coal production, long term development (in Mt/y)
Decline and the stabilization at 8.5 Mt/y
THE DECREASING ROLE OF COAL IN THE NEW ENERGY POLICY OF THE CZECH REPUBLIC

coal 28.4%
nuclear 26.8%
gas 17.7%
hydro (exc.pumped) 11.1%
wind 6.2%
oil 2.2%
solar 2.2%
other 5.4%

EU average 28.4%

Source: Eurostat database nrg_105a last update 29.04.2014 (*includes peat)
New Czech State Energy Policy

is meeting the EU goals in terms of the EU’s climate and energy policy

Energy supplies are based on market principles.

Almost 50 per cent of the consumption of primary energy source is covered from domestic sources.

The import energy dependence indicator (incl. nuclear fuel) is roughly 50 per cent, one of the lowest in the whole of the EU.

The Czech energy sector is dominated by domestic coal sources (almost 60% of electricity and a large portion of heat)

Three top strategic energy objectives:

Security

Competitiveness

Sustainability
AVAILABILITY OF DOMESTIC BROWN COAL EXTENSION

Territorial environmental limits of brown coal surface mining in North Bohemia are legally binding in the Czech Republic.

The mining limit at the Bilina mine has been recently enlarged – the Czech government decision from October 19th, 2015.

Enlargement of the mining limit at the Bilina mine with additional reserves increase by 150 Mt means lifetime extension of power generation from brown coal to 2050.
Czech Republic and CEZ implements a comprehensive modernization program of the conventional brown coal fired power plant portfolio, including construction of a new supercritical 660 MW unit in Ledvice to improve efficiency and environmental impact.

Low-carbon solution shows the efficient retrofit project at Tusimice power plant (efficiency improved from 33% to 38%, CO2 emissions reduced by 45%), and the planned lifetime of the plant (750 MW) will be optimized for 25 years until 2040.

The first supercritical brown coal unit in the country (660 MW) with the efficiency 42.5% is starting its test operation now. Full operation is planned from 2016 with a lifetime of 40 years. CO2 emissions drop by 37.2% compare to older plants. The flexibility of modernized power-plants increased to 50-100%.
GE on Cleaner Electricity Production from Fossil Fuels

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