Status of Coal-Fired Power Plants in Poland

2013 U.S.-Poland Energy Roundtable
Territory: 322 575 km²  
Population: 38.5 mln  
Capital city: Warsaw
Polish Power System
key figures 2012
Installed capacity: 38 GW
Available capacity: 37.7 GW
Reliable capacity of domestic power stations: 28.5 GW
Maximum demand: 25.8 GW
Gross electricity generation: 162 TWh
Gross consumption: 159 TWh
Length of transmission electric lines (750kV and 220 kV): 13 500 km
Length of distribution electric lines (110 kV and low lines): 774 200 km
Energy mix 2012 (electricity only)

- Coal: 33.5%
- Lignite: 50.6%
- Gas: 9.1%
- Hydro: 2.2%
- Wind and other renewables: 1.3%
- Other: 3.3%
Consolidated energy groups (generation and supply)

**ENEKA**

**Generation**
Kozienice
Cap.: 2 880 MW
Production: 12,5 TWh

**Supply**
ENEKA
Supply: 15,1 TWh

**ENERGA**

**Generation**
Ostrołęka, EC Elbląg, EC Kalisz
Cap.: 1 150 MW
Production: 4,6 TWh

**Supply**
ENERGA
Supply: 17,8 TWh

**TAURON**

**Generation**
PKE (Łagisza, Jaworzno III, Siersza, Łaziska, Halemba, Blachownia, Ec Katowice, Ec Biełsko-Biała, PEC Katowice)
Stalowa Wola, EC Tychy, EC Nowa
Cap.: 5 572 MW
Production: 23,8 TWh

**Supply**
TAURON
Supply: 30,3 TWh

**PGE**

**Generation**
GiEK SA (Belchatów, Turów, Dolna Odra, EC Rzeszów, EC Lublin-Wrotków, EC Gorzów, EC Bydgoszcz, EC Kielce, En. Zgierz)
Opole
Cap.: 12 144 MW
Production: 57,5 TWh

**Supply**
PGE Obrót
Supply: 29,5 TWh

**Privatized Power Plants:** ZE PAK, Połaniec, Rybnik, Skawina
<table>
<thead>
<tr>
<th>Location</th>
<th>Power Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bełchatów</td>
<td>12x370 MW + 1x858 MW</td>
</tr>
<tr>
<td>Kozienice</td>
<td>2x500+8x225 MW</td>
</tr>
<tr>
<td>Stalowa Wola</td>
<td>2x125 MW</td>
</tr>
<tr>
<td>Opole</td>
<td>4x380 MW</td>
</tr>
<tr>
<td>Łagisza</td>
<td>7x120 MW</td>
</tr>
<tr>
<td>Łaziska</td>
<td>2x125+4x225 MW</td>
</tr>
<tr>
<td>Jaworzno</td>
<td>6x225 MW</td>
</tr>
<tr>
<td>Porąbka-Żar</td>
<td>4x135 MW</td>
</tr>
<tr>
<td>Skawina</td>
<td>4x110 MW</td>
</tr>
<tr>
<td>Rybnik</td>
<td>8x225 MW</td>
</tr>
<tr>
<td>Pątnów</td>
<td>6x200 MW</td>
</tr>
<tr>
<td>Adamów</td>
<td>5x120 MW</td>
</tr>
<tr>
<td>Konin</td>
<td>2x120 MW</td>
</tr>
<tr>
<td>Dolna Odra</td>
<td>8x220 MW</td>
</tr>
<tr>
<td>Łaziska</td>
<td>2x125+4x225 MW</td>
</tr>
<tr>
<td>Ostrołęka</td>
<td>3x220 MW</td>
</tr>
<tr>
<td>Połaniec</td>
<td>8x225 MW</td>
</tr>
<tr>
<td>Skawina</td>
<td>4x110 MW</td>
</tr>
<tr>
<td>Turów</td>
<td>3x260 + 3x235 + 3x200 MW</td>
</tr>
</tbody>
</table>

**Notes:**
- Water pump storage plant
- Lignite
- Hard coal
Generation of electricity
# Electricity generation from hard coal and lignite

<table>
<thead>
<tr>
<th>Years</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total generation</td>
<td>159.3</td>
<td>155.3</td>
<td>151.7</td>
<td>157.7</td>
<td>163.5</td>
<td>162</td>
</tr>
<tr>
<td>Hard coal</td>
<td>92.8</td>
<td>85.6</td>
<td>83.2</td>
<td>87.9</td>
<td>87.3</td>
<td>82</td>
</tr>
<tr>
<td>Lignite</td>
<td>51.0</td>
<td>53.2</td>
<td>50.2</td>
<td>48.7</td>
<td>52.5</td>
<td>54.2</td>
</tr>
<tr>
<td>Hard coal+lignite</td>
<td>143.8</td>
<td>138.8</td>
<td>133.4</td>
<td>136.6</td>
<td>139.8</td>
<td>136.2</td>
</tr>
</tbody>
</table>
Age structure of electricity generation devices
The development of generation capacity

(forecast reflects: modernization and decommission of „old” units, increase of new capacities is based on connection conditions)
Losses and increase in power generation from coal based on estimates of energy producers

The installed capacity will decrease by 2015 by about 1100 MW. By 2025 total decrease will reach a level of 2500 MW.

At the same time it is planned to install 10 600 MW of new capacities till 2025.

It is planned that total increase in installed capacity till 2025 will reach a level of 8100 MW.
Thank you for your attention