Technology selection process for the first NPP in Poland

PGE Energia Jądrowa SA
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PGE at glance

- Leader on the Polish market (~ 41% net electricity generation share, ~ 26% distribution share)
- 12th largest utility in Europe (based on installed capacity of 13.1 GW)
- Own fuel resources (lignite) securing 2/3 of generation with relatively low cost base
- Completed consolidation process (over 40 companies merged into 4 business lines)

### Key Assets – Locations

- 2 lignite power plants
- 36 hydroelectric power plants
- 2 hard coal power plants
- 10 CHP plants
- 1 wind farm
- 2 lignite mines
- 1 distribution and 1 retail sale company

### Key Operating and Financial Data

<table>
<thead>
<tr>
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<th>2011</th>
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<tbody>
<tr>
<td>Installed capacity</td>
<td>13.1 GW</td>
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<tr>
<td>Net electricity production</td>
<td>56.52 TWh</td>
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<tr>
<td>Lignite production</td>
<td>48.9 Mt</td>
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<tr>
<td>Sales</td>
<td>PLN 28.11 bn</td>
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<tr>
<td>EBITDA</td>
<td>PLN 6.86bn</td>
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<tr>
<td>EBITDA margin</td>
<td>24%</td>
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<tr>
<td>Net Debt / EBITDA</td>
<td>&lt;1%</td>
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<tr>
<td>Distribution lines</td>
<td>274,700 km</td>
</tr>
<tr>
<td>Customers</td>
<td>ca. 5 mln</td>
</tr>
<tr>
<td>Employees</td>
<td>ca. 46,000</td>
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Polish approach to NPP project execution

PGE has performed detailed analyses of the market situation as well as of the status and challenges related to the execution of the NPP project

- Challenges to the NPP commissioning deadline under the initial approach to project execution (separated proceedings, mostly under Public Procurement Law)
  - Delays related to appeals in ongoing tendering procedures (Site Characterisation Contractor and Owner’s Engineer) are critical to the overall investment process
  - Considerable probability of delay in the planned tendering procedures, including technology and EPC contractor selection, if implemented under PPL
  - Need to meet the NPP commissioning deadline, planned for 2023 (intensive schedule) or 2024 (baseline schedule)

- Challenges to Project financing
  - Considerable challenges related to obtaining the financing for the NPP project, liquidity risk and depth of the financial markets
  - Status and preferences of PGE Capital Group, including the potential for own financing of the NPP project

- No assurance of gaining business efficient and effective interfaces among all key elements of the NPP project

New approach – integrated proceedings, covering all key elements of the NPP Project
Under the integrated approach, the potential bidders will be requested to include the following in their bids:

- Delivery of a generation III/III+ technology for an NPP with installed capacity of ca. 3000 MWe – for 2 or 3 units, together with EPC services
- Delivery of O&M support services, together with a know-how transfer program for PGE EJ1
- Equity interest of a strategic partner, including energy off-take
- Declaration of involvement in the form of debt financing by an ECA and commercial banks (at the stage of technology selection, this involves a letter of intent and proposed terms of financing)
- Fuel supply

* The question of including fuel supply under main proceedings is subject to further analysis
Advantages of integrated proceedings

- **Improved balance of solutions and risks to the financing close of the NPP project**
  - Early involvement of strategic partner in the NPP project
  - For financial institutions the NPP project risk is reduced, due to inclusion of the strategic partner as well as of the O&M support for the selected technology
  - Early, comprehensive information regarding possible equity involvement of strategic partners as well as financing by ECAs and commercial banks

- **Higher control over the NPP project execution process and ability to meet the schedule in comparison to „PPL based” and „separated” approach**
  - Major reduction in the risk of NPP project schedule overrun brought by appeals submitted by participants of individual tendering procedures

- **Business and formal interfaces of all key elements of the NPP project**
  - Single common procedure allows to ensure that all key elements of the project remain appropriately interrelated and interconnected
  - Possibility of business flexibility of the procedure (risk distribution among consortium members, contract duration etc.)
  - Improved efficiency / effectiveness of the NPP project risk management in the borderline areas that make up the integrated proceedings
Key features of integrated proceedings

- Competitive and transparent tendering procedure
- Establishes framework for equal treatment of participants on a level playing field
- Tendering process and its results acceptable to the international community
- Process executed against a defined schedule and within a strict timeframe
- Potential bidders actively involved at all stages of the proceedings
- A stimulus for innovative and effective solutions in terms of financing, partnership and timely execution of the NPP construction as well as safe and economical NPP operations

Successful long-term partnership
Thank you