Advanced Brown Coal Processing (Lelchitsi deposit)

Tender
3 February 2011

National Agency of Investment and Privatization
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Executive Summary
• Republic of Belarus is considering to launch an open international tender for the right to sign an investment agreement to construct a coal-mining enterprise based on the Lelchitsi deposit of brown coal with an output of 1.8 million tons per year and a solid-fuel power plant consisting of one power unit of capacity 460 MW within the coal deposit region.

• The proposed scheme is designing, construction, funding, mining and power production.

• The projects secure the State financial backing and are aimed at satisfying demands of the economy of the Republic of Belarus in hydrocarbon materials and their processing products.

• Full transparency and international standards of running the tender process is demonstrated by the National Agency of Investment and Privatization

• Fast track project timeline (signing of the agreement is envisaged by the end of 2011)
Republic of Belarus, Pripyat Polesie Region
Belarus, Key Facts

- Territory of Belarus totals 207.6 thousand sq km
- Population – 9.45 millions
- 2010 GDP – 49 billion USD

Advantages to make business in Belarus

- Full protection given to foreign investments and there are a variety of channels available to businesses to engage with the government.
- Country is constantly developing new initiatives to
  - Reduce red tape for business: "one window" approach
  - Attract international small and medium enterprises (SMEs)
  - Provide preferential tax treatment for investors
- Country has a highly skilled workforce, a large scale privatization programme, attractive incentives, including six Free Economic Zones and a specialist High Technologies Park (HTP).
Pripyat Polesie Region, Key Facts:

- Area – 1,825,300 hectares
- Population – 568,4 thousand
- Supportive local authorities

Main resources:

Oil, potassium and rock salts, brown coal, combustible shale, granite, raw materials for the construction industry

Resources Utilization:

The state program of socio-economic development and comprehensive utilization of natural resources of Pripyat Polesie in 2010 – 2015 is aimed at sustainable social and economic development of the region. These goals can be achieved through comprehensive natural resources utilization, attracting investments, promoting reproduction of natural resources.
Project Overview
«Coal-Mining Enterprise»
Mining and advanced processing of brown coal is to enforce utilization of national energy resources.

**Lelchitsi brown coal deposit:**
- Location: settlement of Lelchitsi, Gomel region
- Recoverable brown coal reserves of the projected mining enterprise are estimated at 35.715 million tons
- Coal quality:
  - moisture content 5.0-8.8 %
  - average ash content 34 %
  - volatile compounds 43.2-44.9 %
  - total sulfur content 0.8-1.5 %
  - maximum heat of combustion 27.2-28.9 MJ/kg
  - heat of combustion in terms of dry fuel 16.0-20.4 MJ/kg

**Coal-bearing strata parameters**
- Promising area of coal occurrence is more than 40 km²
- Depth of coal occurrence ranges from 90 to 400 m and deeper
- Coal-bearing strata consist of 1 to 7 brown coal layers
- Main coal layer thickness ranges from 0.5 to 12.2 m
Neogene and Quaternary deposits (sand, clay)
outside
Paleogene deposits (sand, siltstone)
Cretaceous deposits (chalk)
Jurassic deposits (sand, sandstone, clay)
Triassic deposits (sand, sandstones with clay interlayers)
Carboniferous deposits (sandstones with clay and browncoal interlayers)
Brown coal beds

Coal is of a transition technological coal rank between 3 Б (dense low moisture brown coal) and Д (long-flame coal)
Project participants:
1. Foreign partner – any kind of participation (Investor, Coordinator, Subcontractor).
2. Ministry of Natural Resources and Environmental Protection of the Republic of Belarus, Department for Geology, RUE “Belgeologiya” – Project Initiators and coordinators.
3. Concern “Belneftekhim” – Project consultant
4. Housing and communal services, construction works (cement plants) – brown coal users.

The participation of one or other institution is specified in the course of negotiations.

**Required Financial Assistance (Lelchitsi Deposit):**
Funding required, type of financial participation required:
Funding by strategic investor: representative of industry, manufacturer of advance brown coal processing, power-generating companies, financial companies

<table>
<thead>
<tr>
<th>Funding sources</th>
<th>Type of investment</th>
<th>Amount (mln USD) - indicative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign investment funds</td>
<td>Capital in equity, technology.</td>
<td>578.7</td>
</tr>
</tbody>
</table>

Financial institutions involved:
No financial institutions has been involved as of February 3, 2011
**Expenditures**

**Capital Investment Items (total investments in fixed capital stock):**

<table>
<thead>
<tr>
<th>Project physical components</th>
<th>Capital investment (mln USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction and assembly works</td>
<td>304.9</td>
</tr>
<tr>
<td>Processing equipment procurement</td>
<td>122.5</td>
</tr>
<tr>
<td>Expenses connected with the development of production to the design figure</td>
<td>80.6</td>
</tr>
<tr>
<td><strong>Total (Indicative):</strong></td>
<td>508</td>
</tr>
</tbody>
</table>

**Costs (estimated):**
- Mining and loading in railway cars – 50.43 USD per ton
- Mining and shipment to users – 51.36 USD per ton

**Type of users/ markets :**
- **Housing and communal services, construction works (cement plants)**

**Investments return**

**Investments return is planned through the income from selling of coal refining products**
Project Overview
«Coal-Burning Power Plant»
Construction of a coal-burning power plant consisting of one power-generating unit (capacity - 460 MW) within the coal deposit area with the maximum mine production rate

**Construction goal**: electrical power generation using the Lelchitsi deposit coal resources.

Activities performed:

- The coal layer N 2 was preliminary estimated as suitable for commercial mining; minable reserves - 35.72 million tons.
- Estimated coal cost depending on the mining intensity will be as follow:

<table>
<thead>
<tr>
<th>Annual output, thousand tons</th>
<th>Cost USD/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>400</td>
<td>140.6</td>
</tr>
<tr>
<td>700</td>
<td>96.1</td>
</tr>
<tr>
<td>1800</td>
<td>56.4</td>
</tr>
</tbody>
</table>

- Operation expenses for coal mining are 273.23 billion rubles per year in current prices
- Forecasted mine operation period in the Northern area with the annual mine output of 1,800 thousand tons per year is 20 years.
Major equipment:
Up-to-date electrical power unit 460 MW with a heat-transfer agent of supercritical parameters and a condensing steam turbine

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler unit capacity</td>
<td>1350 t/h</td>
</tr>
<tr>
<td>Superheated steam pressure</td>
<td>28.5 MPa</td>
</tr>
<tr>
<td>Superheated steam temperature</td>
<td>600/620 °C</td>
</tr>
<tr>
<td>Generator power</td>
<td>460 MW</td>
</tr>
</tbody>
</table>

Electrical power plant construction cost is:
1 159 billion rubles including equipment cost of 360 billion rubles (reference price of 2006).

Transport junctions:
• Access to the railway branch-line 80 km in length connecting the fuel-energy complex to the nearest railway station (can be used for transport structural materials, equipment, specialists in the course of the mine and power plant development).

• After the complex is put into operation the railway will serve to ship coal to other coal users, to transport chemical agents and reserve fuel (fuel oil) to the railway station of passenger service. The cost of the railway line construction is 513 billion rubles (reference price of 2006).
**Required personnel:**
- 730 workers for the power plant
- 1000 worker for the mine

The population of the Lelchitsi settlement is 8 thousand persons and can not satisfy demand of the fuel-energy complex (FEC) in personnel

**Problem solution:**
- construction of residential buildings
- residential construction cost in Lelchitsi is estimated at 477 billion rubles (reference price of 2006).
- cost of construction of sewage disposal and purification facilities for the residential settlement, power plant and mine is estimated at 24 billion rubles (reference price of 2006).
- cost of construction of a drinking water intake for the residential settlement, power plant and mine is 66 billion rubles (reference of 2006).

**High-voltage lines** (330 kV and 110 kV):
The cost of supply-line construction is estimated by RUE “Belenergosetproekt” at 232 billion rubles (reference of 2006).
Project realization risks
## Key Risks Allocation

<table>
<thead>
<tr>
<th>Key risks</th>
<th>Country</th>
<th>Head Contractor *</th>
<th>Sub Contractor</th>
<th>Investors**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to land resources</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction incl. design and permits</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Technology performance</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maintenance and operating</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Inflation and utilities prices</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Force majeure</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in regulation</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Environment – subsequent</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Contract termination – Grantor’s fault</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subcontractors’ default</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

(*) Head Contractor will bear allocated risks only during their involvement in the project (i.e. construction period)

(**) Creditors bear the residual project risk, to the extent not covered by contracts or mitigated by other means (insurance)
Tender. Requirements to Participants
The tender documentation sets out the following tender process timeline:

**Bidding Phase**
- Tender Announcement (March, 18 2011)
- Pre-qualification Submission (June, 8 2011)
- Submission of Bids (September 8, 2011)
- Selection of the Successful Bidder: October 3, 2011

**Signing of Investment Agreement**
- Selection of the Successful Bidder (October 3, 2011)
- Negotiations with the Successful Bidder
- Signing of the PPP Agreement (December 1st, 2011)
- Financial Close (before the end of 2011)
General Prequalification Criteria*

- Applicant shall not be subject to liquidation proceedings
- Shall not have undergone bankruptcy or insolvency proceedings within the last 5 years
- Shall not be indebted to the country of origin state budget or any regional or local budget in regards to taxes, fees, and other mandatory payments in an amount exceeding 15% of the Applicant’s assets

Special Prequalification Criteria**

Financial

- Total assets of at least EUR 50 million (or equivalent) during each of the last 3 financial years
- Revenue in excess of EUR 50 million (or equivalent) during each of the last 3 financial years
- Profit (after taxes) during each of the last two years

Technical

- Appropriate fit between the Applicant’s business plan and Belarusian strategic procurement objectives
- Proposed project operator has delivered at least one similar project
- Demonstrates quality assurance, environmental management systems and compliance with all relevant health and safety regulations
- Satisfactory client references and examples of similar projects
- Meeting criteria to the processing volume, power generation and processing products

(*) - applicable to the Applicant and each member of the consortium
(**) - applicable to the Strategic Investor. Strategic Investor is a consortium member who has at least 25% interest in the consortium and satisfy special prequalification criteria
# Indicative Bid Evaluation Approach

## First Stage Technical & Legal

### Technical
**Up to 40 Points**
- Each Bidder shall prepare detailed plans for granite extraction and in particular
- Strategic Development
- Business Plan
- Construction Programme
- Risk Management
- Safety Management
- Environmental Management
- Technical Support
- Operations
- Output and realisation of recycled materials and energy

### Evaluation Criteria:
- **Up to 20 points** - Technology track record and compliance with output requirements (flexibility, facility outputs and etc.)
- **Up to 20 points** - Operational track record and impacts (reliability, enforcement, downtime, etc.)

## Second Stage - Financial

### Legal
**Up to 20 Points**
- Each Bidder shall submit the mark up of the Investment Agreement
- Separate document listing all proposed amendments and justification
- Signed Term sheet with the Operator
- Signed Term sheet with the Head Contractor

Acceptance of the Bid does not mean acceptance of the proposed mark up of the Investment Agreement

### Financial
**Up to 40 Points**
- Up to 40 points for financial deliverability
- Bank Support Letter
- Shareholding Funding
- Commitment Letters
- Shareholder Approvals
- Financial Model

(*) Bids disqualified due to technical and legal reasons at the first stage will not be considered.
Next Steps and Q&A
Republic of Belarus would like to sound out the market in relation to appetite, capacity and capability for investing (or participating as an operator, Head contractor, equipment supplier as part of a consortium) into the “Coal-Mining Enterprise” and “Coal-Based Heat Power Plant” Projects.

Recipients are therefore invited to provide responses to the questions set out in Appendix 1 of this presentation and to return them to the Advisor by the close of business day of 15th of March 2011.

Recipients are requested to send their response or address their inquiries to the Advisor:

Ministry of Natural Resources and Environmental Protection of the Republic of Belarus

Attn: Lis Anatoli  
Deputy Minister  
Tel:+ 375 172 200 70 48  
Mob:+ 375 296 56 51 56  
Email: minproos@mail.belpak.by

Attn: Karpuk Vladimir  
Director of Department for Geology  
Tel.:+ 375 17 292 54 22  
Mob:+ 375 29 112 37 12  
Email: oppgrr@gmail.com
Appendix 1

Questionnaire
We appreciate your thoughts on the below questions:

- What is the degree of your general interest in participating in the tender for the Lelchitsi Project?
- What is your experience and view on projects in Belarus?
- What new technology would you recommend to the Belarus?
- What are your thoughts on the proposed risk allocation?
- What would be your required return on investment for this type of project in Belarus (nominal in EUR before tax)?
- How do you view the proposed Tender Process timetable?
- What is your anticipated level of equity investment / financial leverage for the Project?
- How would you manage FX risk (given that project cashflows will be denominated in roubles)?