Promotion of Trans-border Business of Crude Oil and Petroleum Products in the SAARC Region

28-29 November, 2019
SDG Goal 7.
Ensure access to affordable, reliable, sustainable and modern energy for all

Bangladesh Government’s Vision - 2021
Middle Income Country.
Electricity for All.
Ensure Fuel Security of All at sustainable price.

Bangladesh Government’s Vision - 2041
Developed Country
In 1972, New born Government of Bangladesh under strong leadership of Father of the Nation Bangabandhu Sheikh Mujibur Rahman Nationalized Energy sector.

After nationalizing Eastern Refinery Ltd., Pakistan National Oil Company Ltd., Daud Petroleum Ltd. and Burma Eastern Ltd. a Corporation named Bangladesh Mineral, Oil & Gas Corporation was formed.

Bangladesh Petroleum Corporation (BPC) Started its operations from 1 January, 1977 after separated from above corporation.

Established by the Govt. of the People’s Republic of Bangladesh under Ordinance No. LXXXVIII of 1976.
MAIN FUNCTIONS OF BPC

- Ensure uninterrupted supply of environment friendly petroleum products throughout the country at a fair price.
- Import Crude Petroleum - Refining & Distribution.
- Import & Distribution of Refined Petroleum Products.
- Supervision, Co-ordination & Control of its subsidiary companies.
- Export Petroleum Products-Naphtha
- Establishment & Expansion of Petroleum Products marketing facilities, Petroleum Refinery & other ancillary facilities.
Power Sector
At a glance
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Electricity Generation
62,678 GWh

Access to Electricity
90%

Population
164 Million

Maximum Generation
11,387 MW

Generation Capacity
Grid 17,043 MW
Captive 2,800 MW
RE 290 MW

Per Capita Generation
464 kWh
Fuel-wise Installed Capacity of Existing Power Plants

2018

20,133 MW
Including Captive & RE

17,043 MW
*Aug 2018

Natural Gas 58%
Furnace Oil 21%
Diesel 10%
Coal 3%
Power Import 7%
Hydro 1%
Bangladesh Government’s Vision

Developed Country 2041
Generation Capacity 60,000 MW

SDG Goal 2030
Generation Capacity 40,000 MW

Developing Country 2021
Generation Capacity 24,000 MW
Year-wise Fuel Mix in Power Generation

- **Coal**: 34%
- **Gas/LNG**: 11%
- **Liquid Fuel**: 6%
- **Import**: 1%
- **Nuclear**: 0%
- **Hydro**: 11%

2021
Year-wise Fuel Mix in Power Generation

- Coal: 40%
- Gas/LNG: 37%
- Liquid Fuel: 10%
- Nuclear: 10%
- Hydro: 4%
- Import: 1%

2030
Year-wise **Fuel Mix** in Power Generation

2041

- **Coal**: 43%
- **Gas/LNG**: 32%
- **Liquid Fuel**: 7%
- **Import**: 15%
- **Nuclear**: 2%
- **Hydro**: 0.4%
## Gas Sector: At A Glance

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Nos/ Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Gas Fields</td>
<td>27</td>
</tr>
<tr>
<td>Gas Fields under operation</td>
<td>20</td>
</tr>
<tr>
<td>Production capacity</td>
<td>2750 mmcfed</td>
</tr>
<tr>
<td>Supply of LNG</td>
<td>500 mmcfed</td>
</tr>
<tr>
<td>Daily supply</td>
<td>3070 mmcfed</td>
</tr>
<tr>
<td>Daily Demand</td>
<td>3700 mmcfed</td>
</tr>
</tbody>
</table>
## Sector wise sale of Petroleum Products During 2017-18

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>HSD</th>
<th>SKO</th>
<th>MS</th>
<th>HOBC</th>
<th>FOHS</th>
<th>JET A-1</th>
<th>OTHERS</th>
<th>TOTAL</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1088250</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2653</td>
<td>1090903</td>
<td>15.70</td>
</tr>
<tr>
<td>Industry</td>
<td>278433</td>
<td>2845</td>
<td>165</td>
<td>549</td>
<td>20901</td>
<td>0</td>
<td>35010</td>
<td>337903</td>
<td>4.86</td>
</tr>
<tr>
<td>Power</td>
<td>976262</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>893503</td>
<td>0</td>
<td>1991</td>
<td>1871756</td>
<td>2.69</td>
</tr>
<tr>
<td>Communication</td>
<td>2434880</td>
<td>26</td>
<td>282192</td>
<td>227711</td>
<td>10718</td>
<td>408272</td>
<td>68440</td>
<td>3432239</td>
<td>49.40</td>
</tr>
<tr>
<td>Domestic</td>
<td>8980</td>
<td>133771</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14005</td>
<td>156756</td>
<td>2.26</td>
</tr>
<tr>
<td>Others</td>
<td>48907</td>
<td>1761</td>
<td>2311</td>
<td>2020</td>
<td>28</td>
<td>0</td>
<td>3752</td>
<td>58779</td>
<td>0.85</td>
</tr>
<tr>
<td>Total</td>
<td>4835712</td>
<td>138403</td>
<td>284668</td>
<td>230280</td>
<td>925150</td>
<td>408272</td>
<td>125851</td>
<td>6948336</td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td>69.90</td>
<td>1.99</td>
<td>4.10</td>
<td>3.31</td>
<td>13.31</td>
<td>5.88</td>
<td>1.81</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regional Connectivity

– Already importing 1160 MW Power from India
– Contract signed with Adhani Group to import 1600 MW from India
– Target 9000 MW (15%) by 2041 from regional arrangement from India, Bhutan, Nepal and Myanmar
– Hydro power Potential in the region is of 317000 MW (Bhutan 30000, Nepal 83000, India 150000 and Pakistan 54000 MW)
– RE (69 GW)specially the wind power experience of India
Supplying RLNG through Cross-Border pipeline from India to Bangladesh

- Indian Oil Corporation Limited (IOCL), India has proposed supplying of RLNG from Dhamra LNG port at India through a 30"/36“ dia. 350 km pipeline from Dhamra to Haldia, Kolkata and 133 km pipeline from Haldia to Bhomra at Shatkhira border. Bangladesh will construct another 65 km. pipeline from Bhomra to Khulna for network distribution.

- MOU between Petrobangla and IOCL has been signed in April, 2017 to this effect during Hon’ble PM’s visit. A Joint Working Group (JWG) has been working on this project.

- Initial supplying capacity will be 1 MMtpa which could be increased upto 3 MMtpa in the next phase. Commencement of the supply of RLNG has been planned by 2021 by completing all the linked pipelines.

- A draft Gas Sales Agreement (GSA) submitted by IOCL is now under review by a Technical Committee. IOCL will be invited for further discussion for finalization of the GSA very shortly.
MoU Between Nepal & Bangladesh to establish adequate national and regional grid connectivity to explore the power trade between the two country.

- Minister for Energy, Water Resources and Irrigation Barsha Man Pun (right) and Bangladeshi State Minister for Power, Energy and Mineral Resources Nasrul Hamid sign the memorandum of understanding on energy cooperation between Nepal and Bangladesh, in Singha Durbar, Kathmandu, on Friday, **August 10, 2018**
A Joint Working Group co-chaired by the Joint Secretary, Ministry of Energy. Water Resources and Irrigation of Nepal and Joint Secretary, Power Division, Ministry of Power, Energy and Mineral Resources of Bangladesh will promote and facilitate cooperation in the areas identified under this MoU.

A Joint Steering Committee co-chaired by the Energy Secretary of the Government of Nepal and Power Secretary of the Government of Bangladesh will be constituted to review the progress of the Joint Working Group.
India is supplying HSD/Gasoil to Bangladesh through rail wagon since March, 2016
## Present Scenario of Trans-Border Oil Business

<table>
<thead>
<tr>
<th>Business Started</th>
<th>2016 by Rail wagon and continue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Gasoil 0.05% ‘S’</td>
</tr>
<tr>
<td>Name of refineries</td>
<td>Numaligarh Refinery Limited (NRL)</td>
</tr>
</tbody>
</table>

### Imported quantity from NRL by G-to-G

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Rake (s)</th>
<th>Product</th>
<th>Imported Quantity (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>01</td>
<td>Gasoil</td>
<td>2268</td>
</tr>
<tr>
<td>2017</td>
<td>13</td>
<td>Gasoil</td>
<td>27,469</td>
</tr>
<tr>
<td>2018</td>
<td>35</td>
<td>Gasoil</td>
<td>77,496</td>
</tr>
</tbody>
</table>

Note: Allocated quantity for 2019 is 1,10,000 MT (50 rakes).
Possible import of 250,000 MT per Year to 400,000 MT per year through this pipeline
Project Information of IBFPL

- Total Length: 130 kilometers (approx.)
- Bangladesh Portion: 125 Kilometers approx.
- India Portion: 05 Kilometers approx.
- Pipe Diameter: 10 inch
- Transportation Capacity: 1.0 Million Metric Ton/year
- Project Implementation Period: 30 months
- Custody Transfer Flow Meter: At Bangladesh-India International Border
Initiation

• Numaligarh Refinery Limited (NRL) proposed on 06-12-12 to Bangladesh Petroleum Corporation (BPC) for supply of Diesel through pipeline from Siliguri Marketing Terminal, India to Parbotipur Depot, Bangladesh.
Consensus

• BPC and NRL signed MoU on 20-04-2015 in Dhaka for import of Diesel through pipeline named Indo-Bangla Friendship Pipeline (IBFPL).
Objective of the Project

- To import diesel through pipeline from Siliguri Marketing Terminal (SMT) of Numaligarh Refinery Ltd, India to Parbotipur Depot, Bangladesh.
- To supply diesel to northern region of Bangladesh with fast, smooth, easy and cost effective mode instead of existing system.
- It takes almost 07 (seven) days to carry diesel from Chittagong to Parbotipur depot. After Implementation of IBFPL, it will take approx. 36 hours from SMT to Parbotipur depot.
Contract for Diesel

Sale Purchase Agreement (SPA) has been signed on 22 October, 2017 between BPC and NRL for purchase of Diesel from India through IBFPL.
MoU for Pipeline Construction

- Fully Financed by Government of India.
- Bangladesh Will provide land and local support.
Future Projects

• Government of Bangladesh has started different activities for building ports, industrial areas and energy hubs at Moheshkhali-Matarbari region of Cox'sbazar district and Payra port area of Patuakhali district.

• This development is continuous activities of the present government and the election manifesto.

• Energy plays an important role in the country's economic development and progress.

• Regional economic network with neighboring countries.
Background Information

• Import/export of goods (transit) will be increased remarkably through Chattogram, Mongla and upcoming Payra port to Nepal, Bhutan and India by road/river/railway communication.

• The inbound and outbound vehicles will receive petroleum product from Bangladesh territory.

• In view of this, the demand of petroleum products will be increased remarkably.

• Considering the growing demand of petroleum oil in future, Bangladesh Petroleum Corporation (BPC) is considering to set up petroleum refinery and large LPG terminal in Maheshkhali-Matarbari and Payra port area.
<table>
<thead>
<tr>
<th>SL .</th>
<th>Name of Project</th>
<th>Brief of the project</th>
<th>Rationale of the project</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Installation of Petrochemical Complex and Refinery at Moheshkali, Cox’sbazar.</td>
<td>Moheshkali Matarbari, Cox’sbazar is a very potential area for setting up large industry or refinery on the coast of the Bay of Bengal. Natural deep of water along the coast line is around 10 meter and around 20 meters deep water is available 7-8 kilometer away from the Moheshkali Matarbari coast. For this reason, BPC is planning to set up a new refinery having crude oil processing capacity of 15-20 million metric ton per anum at Moheshkali Matarbari area, Cox’sbazar.</td>
<td>This project has direct linkage with Seven five years Plan &amp; Sustainable Development Goal [SDG] (Goal no.7: Ensure access to affordable, reliable, sustainable, and modern energy for all).</td>
<td>Pre-feasibility study, detailed study / feasibility study is required before establishing refinery in Moheshkali-Matarbari area.</td>
</tr>
</tbody>
</table>
## Proposed Petroleum Refinery projects of BPC (continue)

<table>
<thead>
<tr>
<th>SL</th>
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<th>Brief of the project</th>
<th>Rationale of the project</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Composite Petroleum Refinery, LPG Bottling Plant, Strategic Oil Reservoir and SPM at Payra port.</td>
<td>BPC is planning to set up a new refinery having processing capacity of 7.5-10.0 million metric ton per annum at Payra Port area for considering increased demand of petroleum products.</td>
<td>This project has direct linkage with Seven five years Plan &amp; Sustainable Development Goal [SDG] (Goal no.7: Ensure access to affordable, reliable, sustainable, and modern energy for all).</td>
<td>Interested parties have been submitted Request for Proposal (RFP) document on 20-02-2019 for the feasibility study of petroleum refinery in Payra port area. After completing feasibility study, necessary action will be taken for establishment of petroleum refinery in Joint Venture with prior approval of the government.</td>
</tr>
</tbody>
</table>
Existing Rules, Regulations and Procedures Related to Trans-border Petroleum Business.

- Bangladesh has already signed several MoU with various countries for import of LNG and Electricity.
- To facilitate the trans-border Petroleum Business, there’s numbers of regulations or Non-binding agreements in action.
  - MoU between Bangladesh & India to import oil using railway wagon and subsequently through Pipeline on G to G basis.
  - Future possibility of supplying fuel directly from Haldia port of India to Mongla Port of Bangladesh on G to G basis.
  - SAARC Regional Investment Treaty. This treaty will serve as a broad template for the SAARC agreement on promotion and protection of Investment in cross-border petroleum business.
  - GoB has approved SAARC framework agreement for Energy Cooperation (Electricity). We can proceed for similar framework agreement for Energy Cooperation (Petroleum Products).
Thanks for Patience Hearing