

Views - Long Term Generation Expansion Plan 2018 - 2037

Eng. Preeni Withanage

Director Benefits

Petroleum Resources Development Secretariat

Views and suggestions in brief

- Appreciate CEB team for identifying diversified energy sources for power generation including NG and renewable in the base case compared to the previous plan
- Definitions and wording –
“LNG fired PP” replace with “ NG fired PP” or “R-LNG fired PP” Should be technically sound and consistency throughout the document
- Fast track importation of LNG by 2020 –
 - LNG and domestic NG Pricing – Breakeven prices
 - Requirement analysis vs LNG sourcing/Terminal options
 - Timing & availability of domestic NG
- Action plans for Projected Near Term (4 – 6 years) power projects.
 - Identify Key tasks and time targets at the time of planning annex it
- Consider Cost – benefit analysis including other value added benefits to the state at the planning stage of the PP. – Least Generation Cost ??????
- Local Content Development Fund – Annual Contributions from power projects for feasibility, EIA studies, capacity building, R&D and a mechanism to capture that cost (commercial value for such reports)

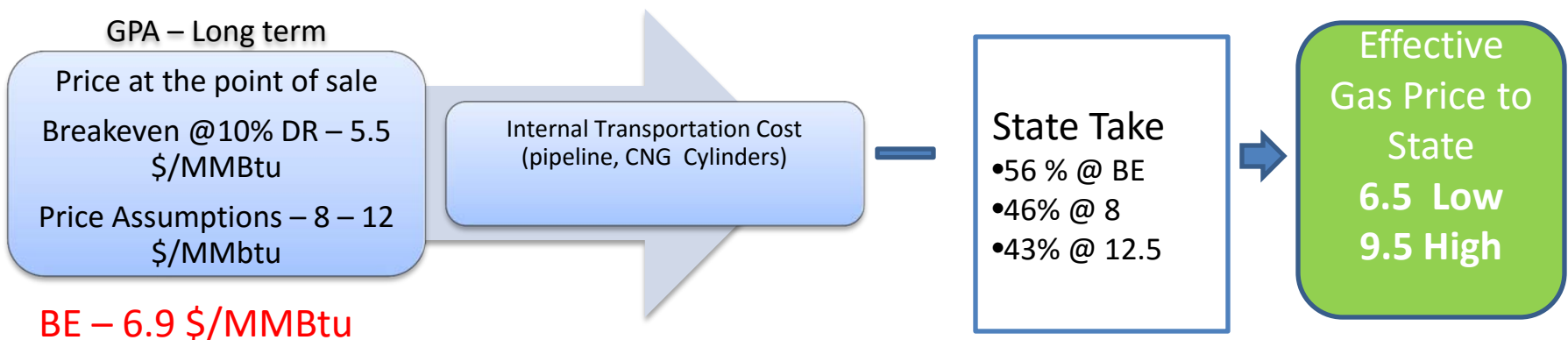
Fast Track Importation of LNG by 2020

- **R-LNG Pricing** – Suggest Floating Terminal (3-5 year contract)



BE – 5.5 \$/MMBtu

- **Domestic NG** – Expected by 2021-23 subjected to finding an investor by 2018 – CAPEX USD 600 Million (Dorado discovery ~300BCF – 630 MW for 10 years) + more to follow



BE – 6.9 \$/MMBtu

Action plans for near term power projects

- Eg : NG fired PP by 2019 – Find Earliest Start Time

	Time Target
•Recruitment of Consultant if necessary	3 Months
•Training for in-house staff	2 Months
•Feasibility study	6 Months
•IEE Study	One Year
•Select terminal option & EIA	6 Months
•Metocean /Geotechnical Survey	6 -12 Months
•Tendering	3 Months
• Evaluation and Investor selection	3 Months
•Commercial negotiations and GSA	3 Months
•Construction	18 Months
•LNG sourcing	8 Months
•Internal pipelines	18 Months
•Commissioning of the plant	3 Months

Platts Japanese Korean Marker (JKM) Reference – Jan 2019 Prior settle price 5.9 (High : 7.45 Low : 4.45)

The average price of spot-LNG imported into Japan that was contracted in May 2017 is 5.7USD/MMBtu.

(See Notes below for the arrival-based price. Statistical accounting of these prices started from March 2014 (Statistics have been published since April 2014.). Therefore, spot-LNGs that were contracted before March 2014 are not included in the calculation of the Arrival-based Price.)

(Unit : USD/MMBtu)

Month		Contract-based Price	Arrival-based Price
2017	April*	5.7	5.9
2017	May**	5.7	5.7

*Detailed ** Preliminary

National Natural Gas Market Overview: World LNG Landed Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

World LNG Estimated Landed Prices: Apr-17



According to India's minister for petroleum and natural gas, Dharmendra Pradhan, LNG prices for imports from Qatar have dropped below \$5 per MMBtu due to the revised long-term deal.