CONCEPT PAPER

On

Proposed CAPEX-Based Bidding for Natural Gas Pipelines

1. Background

The HLEC on Vision 2040 – Natural Gas Infrastructure in India has emphasized CAPEX-based bidding for natural gas pipeline development. Further, the HLEC constituted to suggest measures for promoting competition and ensuring a level playing field in the gas transmission and distribution businesses has recommended a relook at the existing bidding criteria to encourage wider participation and ensure more realistic and sustainable bids.

The Petroleum and Natural Gas Regulatory Board (PNGRB) has traditionally adopted a tariff- and capacity-based competitive bidding framework for authorization of natural gas pipelines. However, bids offering low tariffs or high capacities may adversely affect project viability and expose the authorized entity to significant market and commercial risks, particularly due to lower-than-anticipated gas volumes and tariff constraints.

To address these concerns and facilitate timely pipeline development, a framework providing an **assured return,** may be considered. Such a mechanism would mitigate market risk, improve project viability, and encourage greater industry participation in the development of natural gas pipeline infrastructure.

2. Detailed Feasibility Report (DFR)

PNGRB may undertake demand assessment and technical assessment through specialized independent agencies. The DFR would objectively establish technical specifications, project scope, demand and estimated CAPEX.

3. Volume Risk

There shall be no volume risk for the entity, as the assured return shall be determined based on the **actual volume of gas transported**. The tariff shall be **trued up once every two years** based on the actual volume and other relevant parameters.

The tariff shall be determined based on the **existing DCF methodology**, wherein the tariff is evaluated considering the **NPV of the total cash outflows (CAPEX plus OPEX) over the economic life of the pipeline**, so as to ensure recovery of the approved costs along with the applicable return.

4. Capital Expenditure (CAPEX) Bidding: Financial bids would be evaluated primarily based on the lowest quoted CAPEX for execution of the pipeline, in connection with the DFR and the conditions stipulated in the Application-cum-Bid Document (ACBD. However, the Board would reserve the right to reject or cancel the bid were such bids is abnormally low/high from the estimated capex.

5. Basis of Return and Tariff Determination

The return to the Authorized Entity shall be linked to the quoted CAPEX of the pipeline. However, for tariff determination and recovery from users, the tariff may continue to be calculated based on actual volume flow, while ensuring that the approved return to the Authorized Entity is maintained in accordance with the prescribed financial parameters. Accordingly, the basis for determining return shall be approved CAPEX, while the basis for tariff computation may remain volume-based. This would provide investment certainty to the Authorized Entity while retaining an appropriate mechanism for tariff determination.

6. Debt–Equity Structure and Cost of Debt

For determining the normative return, the following financial parameters may be considered:

a) Debt–Equity Ratio: A normative Debt–Equity ratio of 70:30 shall be considered.
b) Cost of Debt: The cost of debt may be linked to the prevailing SBI MCLR+spread. For regulatory computation, normative interest equivalent to one-year SBI MCLR may be considered, irrespective of the actual financing arrangement.
c) Equity Return: An equity return of 14% post-tax may be considered and approved after commissioning for the entire economic life of the pipeline, including any approved extension of economic life.
d) Normative Debt Tenure: 15 years, with a 3-year moratorium and repayment through equal annual instalments.

The Authorized Entity shall remain free to arrange project financing in any suitable manner. The above parameters shall be used only for normative regulatory computation. Detailed financial modalities may subsequently be prescribed through the applicable ACBD/regulations.

7. Incentivization

(i) CAPEX Incentive

To encourage efficient project execution while avoiding disincentives arising from minor variations in actual pipeline length:

(a) **Assured Return on Approved CAPEX:** Even if the actual CAPEX incurred is lower than the approved CAPEX, the return may be assured based on the **approved CAPEX**

(ii) Utilization Incentive

In case where the actual volume exceeds normative volume or 75% of pipeline capacity, whichever is higher, in any of the financial year(s), only the 50% of such excess volumes shall be shared through adjustments in the tariff of the pipeline.

8. Spur Lines, Extensions, Tie-in and Expansion

Any proposal for spur lines, pipeline extensions, tie-ins, capacity augmentation, or other associated additional CAPEX shall require prior approval of the Board **(even if such additional capex is being done within the tariff corridor)**. Upon approval, the CAPEX incurred towards such additional infrastructure shall be eligible for the prescribed return, subject to prudence check and other applicable regulatory conditions.

9. Operating Expenditure (OPEX)

The following methodology may be considered:

a) OPEX at 2.0% of approved CAPEX;
b) Manpower expenditure additionally on a normative basis;
c) Annual escalation of OPEX and manpower cost at 4.5%, or based on WPI inflation index, or such other appropriate methodology as may be prescribed;
d) Compressor-related expenditure, wherever applicable, may be considered separately; and
e) Electrical compressor power cost may be allowed on actual basis, subject to appropriate regulatory prudence checks.

Disclaimer: This Concept Paper provides only an indicative framework. In case of any inconsistency, the provisions of the draft amendments proposed to be considered.