

Ref. No.: PF/9  
February 21, 2013

Shri Vivek Rae  
Secretary  
Ministry of Petroleum & Natural Gas  
Shastri Bhavan, New Delhi-110 001

**Sub.: Report of the Committee on the PSC Mechanism in Petroleum Industry - Approach to Gas Pricing**

Dear Sir,

The Petroleum Federation of India (PetroFed) is an apex Society of entities in the hydrocarbon sector and acts as an industry interface with Government, regulatory authorities etc. It helps in resolution of issues and evolution of policies and regulations. It represents the industry on Government bodies, committees and task forces and has been submitting recommendations to the Government on behalf of the industry on various issues.

The Committee constituted under the Chairmanship of Dr. C. Rangarajan to look into the Product Sharing Contract mechanism in the petroleum industry has webhosted its report. Some issues therein need to be looked afresh.

To recapitulate, the Committee, besides recognizing the need for streamlining the process and approvals, has also felt the need for synergy between the Government and oil companies for enhancing domestic production as well as for incentivising investments in the exploration and production of hydrocarbons, including from the private sector. The Terms of Reference (TOR) of the committee basically covered:

- a) Modifications necessary for future PSCs,
- b) Minimize the need of monitoring expenditure of the contractor without compromising on hydrocarbon output and the Government's take, and
- c) Structure and elements of the guidelines for determining the basis or formula for the price of domestically produced gas, and for monitoring actual price fixation.

The Petroleum Federation of India had submitted industry recommendations on design of future PSCs and the tax aspects vide our letter of even reference dated July 31, 2012.

The industry members are appreciative of the work done by the Committee in identifying areas needing Government attention but submit that the following issues need to be reconsidered on priority before arriving at a final decision:

1. The Committee, in relation to a) & b) in the TOR has recommended dispensing with the Pre-Tax Investment Multiple (PTIM) methodology and

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cost recovery mechanism of PSCs and instead introduced adoption of royalty - tax regime. It has been recommended that all PSCs signed by the Government up to NELP-IX would continue with the existing fiscal model to ensure sanctity of the contract and the proposed model be applicable for future contracts.

The proposed system may not, however, incentivise investment in the high risk & capital intensive exploration & development business in technically challenging areas without some downside protection for partial risk-capital recovery and thereby adversely affect maximizing resource extraction in difficult-to-access reserves.

2. The suggested gas pricing formula is not known to be practiced anywhere in the world, including the countries to which a reference has been made.

As submitted by PetroFed in its recommendations, the pricing should be determined as per international price mechanism. Currently crude oil and petroleum products in the country are priced on import/trade parity basis. The mechanism is simpler to arrive at the consumer price and has been functioning successfully. Natural gas is the only product where prices are not fixed on this basis. This is resulting in under pricing of gas which amounts to subsidization of user and the allegation on the Government that the burden of subsidization is being passed on to the gas producers. An import parity price would demolish this and incentivise investment as well as enhance Government share of profit.

Moreover, gas reserves that feed LNG liquefaction plants in the world are largely located in very well hydrocarbon endowed locations and by attaining economies of scale from well deliverability to liquefaction, can remain competitive in markets across the globe. In contrast, producers in lesser endowed countries like India are at a disadvantage, having more challenges and difficulty in achieving viability. While the Government protects other domestic industry by levy of import/ anti-dumping duty on imports, the domestic gas producers are denied even import parity price in the country. An import parity price would establish a level playing field and incentivise domestic production.

The Henry Hub prices or the NBP prices in UK have no relevance to the Indian market unless translated to price at Indian ports. The hub prices are for a Region or a specific zone and are independent of each other. To have hub prices, it is essential to have gas-on-gas competition pricing. The adoption of a pre-determined formula amounts to APM pricing whereas NELP provides market determined pricing. The relevant formula for the Indian market would, therefore, be the import parity price since imports constitute 30% of gas consumption which would go up

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to 50% during the Twelfth Five Year Plan. This import demand is met by different companies from diverse sources and is, as such, competitive and should work as a benchmark.

3. The Committee Report has assumed that the price of gas accrues to the producer at the well-head and has accordingly worked out the price at well head by deducting all the estimated/assumed "costs" from the FOB price of LNG till the well head.

As per Para 24.3.1 (for Indian imports) and 24.3.5 (for Japanese Imports) the Producer's Netback price  $N = A - B - C$

Where:

A = Imported LNG Price on Netback FOB available from World Energy Intelligence (applicable for India and Japan)

B = Liquefaction costs at the respective loading port (source) - Assumed as US\$ 2.5/MMBTU for old LNG supplies and US\$ 3.5 for LNG supplies after 2010

C = Transportation and treatment costs of natural gas from wellhead to liquefaction plant, which after including handling charges and sweetening cost is estimated at US\$ 0.5/MMBTU

**Comment on "C" in aforesaid formula:**

It is submitted that the upstream producers' price is not applicable at the wellhead but at the Delivery Point after the producer has aggregated gas from multitude of wells, brought it to a central facility for necessary processing, including sweetening as required, compression, dehydration, etc. before it can meet the specifications required for making the gas saleable to the customer at the Delivery Point. The producer has to necessarily incur such costs for making gas available for utilization at the delivery point and there is no rationale for working out the well head price. In the case of LNG, the producer would get a producer price only on delivering gas to the liquefaction company with the desired specifications. In the Indian context, producer price is specified at landfall only. For gas produced offshore, the producer bears the cost of offshore aggregation, transportation to shore, processing at shore terminal before making it available for sale. Similarly, in onshore fields, gas is delivered for sale by the Producer at the delivery point, not at the well-head.

Therefore, the number 'C' in the formula should be taken as Zero or deleted.

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**Comment on “B” in aforesaid formula:**

“B” - The cost of liquefaction of different operators may not be available publicly. Secondly, it may be subjected to manipulation by various interested parties, in case it is considered as a basis in Indian gas price calculation. Further, defining an estimated number may lead to difficulties in implementation and disputes. There is the hazard that these numbers may be quoted by LNG suppliers to justify higher price for gas. It is submitted that it may not be appropriate to include such a number.

**Comment on “A”**

As the number “A” appears to be quoted and available from publicly available sources, it would be transparent and without ambiguity, which would be acceptable.

Therefore, instead of trying to derive net-back (N) from FOB LNG prices, it would be preferable to directly use “N” as the FOB LNG prices which are imported into India/Japan.

4. In case it is decided to adopt the pricing mechanism as recommended by the Committee, the least that should be done is to simplify the formula by adoption of simple average price instead of weighted average by ignoring the volumes.

The global average price using the three marketing hubs suggested by the Committee would then become:

$PGAV = (PHH + PNBP + PJAV)/3$ . The proposed pricing formula then would be  $PAV = 0.5 \times PGAV + 0.5 \times PIAV$ .

*PGAV = Global average price using three marketing hubs*

*PHH = Trailing twelve month's average of daily prices on Henry Hub for relevant year*

*PNBP = Trailing twelve month's average of daily prices on NBP in the UK for relevant year*

*PJAV = Trailing twelve month's average Japan LNG Price (DES), which is applicable for Japan*

*PIAV = Trailing twelve month's average netback price for LNG imports in India*

Where PHH, PNBP and PJAV data is derived from Platts (clearly transparent and easily administered).

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Since the roadmap for the current regulatory mechanism to gas-on-gas competition is suggested as five years, the PIAV weightage should be increased by 10% each year so that after five years the need for global average price is eliminated.

We urge you to kindly fix the price of gas on:

- a) import parity basis, or
- b) simplify the formula as given above by taking simple average of the price at the three hubs and increasing share of the average netback price of annual LNG import in India by 10% every year in the pricing formula.

It may also be added that as per international industry practice, the upstream producers extract the higher hydrocarbons as Value Added Products (VAPs) before supplying lean gas to consumers. However, if domestic producers are not allowed to extract such heavier fractions they should be permitted to discuss and settle suitable premium for such fractions on commercial considerations, over and above the applicable gas price with the buyer.

Similarly for deep water and challenging frontiers of hydrocarbon exploration and production, a premium on natural gas prices is required to incentivise monetisation of such resources.

We will be happy to make a presentation on the subject.

Looking forward to a favourable consideration.

Thanking you,

Yours faithfully,

A. K. Arora  
Director General