Parikh Panel Recommendation: The Committee's Logic for Proposed Gas Policy

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The main objectives of the gas pricing policy considered by the Committee, which I chaired, were the following:

- To increase the production of natural gas in the country to meet the Government target of increasing the share of natural gas in the primary energy mix of the Country to 15% by 2030 and also to contribute to energy security.
- To ensure the availability of natural gas to end users, vulnerable sectors and sections of society at fair and affordable costs.
- To realise these objectives with minimum burden on Central and States finances.

In doing so, the producers and distributors must get an adequate return on their investments.

India uses around 63000 MMSCM (million metric standard cubic metres) of gas, of which 47% is imported as LNG (Liquefied Natural Gas). The share of natural gas in India's primary energy mix in 2022-23 was around 6.3%. Thus, an important question was how to increase domestic gas production. Since exploration and production of gas involve a lot of risk for the investors, they want total pricing and marketing freedom and assurance of stable government policy. Such freedom is already provided to fields allotted after February 2019. This is the goal of the pricing policy for all producers. The trust in the stability of Government policy will be earned over time.

Currently, many pricing regimes are followed depending on when the field was allotted and under what terms. These can be grouped under three categories, the first is the fields given to ONGC and OIL on a nomination basis. These two public sector firms produce nearly 70 % of the domestic gas. The price of their gas is administered by the government and is called the APM (administered price mechanism) gas. Since 2014 the price of APM gas has been determined as the weighted average producer price of four foreign markets, one in the USA, one in Canada, one in Europe, and one in the former Soviet Union excluding Russia. The price was revised every six months.

In a competitive market, it is the consumer price that should be equalised to the cost of imported gas. Linking the producer price in India to that of foreign producers can create problems. The cost of production varies from field to field, and the formula produced an APM gas price of \$1.79 per MMBTU from 1-10-2020 to 1-10-2021. This did not cover even the marginal cost of production of ONGC and OIL. A \$4 per MMBTU would cover their cost and provide a reasonable profit margin. Thus a floor price of \$4 per MMBTU was recommended.

The APM gas is allotted to different consumers, household consumers of piped natural gas (PNG), transport vehicles that run on compressed natural gas (CNG), and fertiliser producers. Household consumers need to be provided with clean cooking fuels as using firewood or dung, or coal causes indoor air pollution with adverse impacts on health, lung disease, eye infections and premature deaths. To attract people to use PNG instead of LNG, much of which is also imported, the delivered

price of PNG has to be lower than that of LPG (liquefied petroleum gas) to account for the piping cost required for PNG.

CNG use by transport vehicles is promoted to reduce urban air pollution. CNG vehicles emit fewer particulates and less CO2 than Bharat Standard 6 diesel vehicles. Thus the cost of CNG for the vehicles has to be less than that of diesel.

As long as government subsidises fertiliser, the subsidy on gas supplied to fertiliser plants merely replaces the subsidy on fertiliser price to farmers.

Thus APM gas price has to be fixed so that PNG and CNG users remain competitive compared to their alternatives. The committee has suggested that the price be fixed based on the import price of Indian basket of crude oil with a slope of 10%. I.e. the APM gas price will be in MMBTU = 0.1*Barrel of average import price of Indian Basket of crude oil with a ceiling of \$6.50/MMBTU. Since the prices of LNG and diesel are related to price of crude, this will ensure that PNG and CNG remain competitive.

Since the international price of crude oil and gas has been very volatile recently, a ceiling price is imposed. The ceiling price of \$6.5/MMBTU is the landed cost of import even when the producer price in USA falls to \$2.5/MMBTU when the loss of 15% in liquefaction, cost of loading and shipping and the cost of unloading and regasification are included. Once the volatility in international market falls, APM gas price may be freed and be market determined.

The set of other producers who were given fields through competitive bidding have different conditions. While some have cost sharing, some have profit sharing and some revenue sharing. They all have pricing freedom but with a ceiling that government prescribes periodically. The ceiling should be removed from January 1, 2026. The reason for delaying this is that a number of producers have contracts that are linked to the ceiling price. A sudden removal will create unnecessary disturbance and legal issues.

We had explored the impact of various pricing regimes on government finances and concluded that even when the gas price is freed and reaches a value as high as \$15/MMBTU and government subsidizes PNG and CNG users, the net impact on government finance is positive. Thus the policies recommended puts no burden on government finance.
