

Gas flaring: Dithering on use policy

By Uttam Gupta

FROM Bombay High to Krishna-Godavari basin, prospecting of natural/associated gas on an unprecedented scale holds great promise for rapid development of power, fertilisers and a host of downstream chemical and petrochemical industries. Indeed, these industries do release that their growth prospects are inextricably linked to adequate availability of this most efficient source of hydro carbon. And yet, they are unable to make full use of the gas for which the Gas Authority of India Limited (GAIL) has invested huge capital in laying of the pipeline and development of related infrastructure. The result is flaring of about 17 million cubic metres of natural gas per annum valued at about Rs 1800 crores. Meanwhile, a large capacity of HBJ gas pipeline remains unutilised and GAIL continues to incur heavy losses.

The enthusiasm generated by the success of ONGC's efforts seems to have given way to mood of despondency. The OGNC has been asked by the Petroleum and Natural Gas Ministry not to flare any additional gas without its permission. Besides directions for no more investment in transportation of natural gas till downstream facilities come up for its utilisation, even measures to stop flaring are being contemplated.

HBJ pipeline

The concern of the gas sector understandable. But then, the user industries have their own problems. Fertiliser has the predominant allocation of gas from the HBJ pipeline. Of the six gas based projects, each having requirement of about 1.5 million cubic metre per day, scheduled for commissioning during the Seventh Plan period, only three have come up by now. The implementation of the remaining three projects started only last year i.e., 1989-90, when they should have been commissioned as per original schedule. Even assuming a pretty tight commissioning schedule, it is unlikely that they would be in a position to take gas before two to three years.

The power department's discomfiture arises from the terrible mis-match between supply and demand for electricity. It is apprehending resource shortfall of about Rs 50,000 crores in relation to the Eighth Plan

target of 38,000 MW additional generation capacity. Gas based power plants can perhaps, help make up for the lost time and circumvent resources constraints. The impression has prompted experts in power circles to seek preference for use of gas in power in the contemplated gas utilisation policy.

The GAIL's primary concern is to somehow recuperate the loss already incurred and prevent further retrogression. While this is pretty legitimate as no corporation would accept signs of sickness from the word go, the "modus operandi" adopted has pushed it farther away from the objective.

Better use

Under the policy dispensation as it evolved in the early eighties, highest priority was given to the use of gas as feedstock and fuel in production of fertilisers. The reason was two fold. First, fertilisers being a vital input in getting the best from HYV seeds in terms of grain yield, its domestic production had to be stepped up substantially to reduce dependence on imports. Second, gas contains valuable hydro carbon which must be put to optimum use. Between power and fertiliser, the latter provides a better use of gas as it not only draws upon its engry content, but also, its chemical value. Besides, use of gas as feedstock vis-a-vis alternative fuels in fertiliser production ensures smooth plant operation at fairly high capacity utilisation and optimising on energy consumption.

Pursuant to this policy and considering abundant availability of gas, from the Bombay High, about 2.5 million tonnes of N capacity added during the eighties was based on gas as feedstock thus raising its share from 13 per cent in 1980-81 to 41 per cent in 1989-90. The three projects along the HBJ pipeline currently under implementation in the private sector are also based on gas. Besides even the Nagarjuna Fertilisers Ltd., plant at Kakinada which was originally contemplated on naphtha is now proposed on gas from Krishna-Godavari basin. In fact, the infrastructure for supply and distribution of gas from the basin is already in progress.

Why when dithering on the well set priorities for utilisation of natural gas? "Power cannot

be imported whereas fertilisers can be". The argument is frequently advanced to seek priority for use of gas in power. It pre-supposes easy availability of fertiliser material in the world market at low prices and above all, adequate foreign exchange to pay for them. None of these premises hold in actual practice.

From a comfortable demand-supply balance which prevailed until some time back, the global situation as per projections of the World Bank/FAQ/UNIDO Working Group (May, 1990) is expected to become increasingly tight in nitrogen by 1994-95. The so-called "cheap imports" is also a thing of the past as the world market price of urea which started recovering from 1987, continues to maintain an increasing trend. With projected tightening of global demand-supply balance, the situation in this respect too is likely to worsen.

Finally, in the present foreign exchange crisis, whether power or fertiliser the import option is just not available. And, why do we at all need to import nitrogenous fertilisers which can be produced locally with our own resources?

Priorities

Against this backdrop, the power sector's keenness to adopt a more convenient route is understandable. A gas based power plant undoubtedly offers advantages of lower investment cost and shorter gestation period vis-a-vis thermal/hydel projects. In the context of current large-scale flaring of gas, priorities as such do not have much of operational meaning. Perhaps, some additional capacity for power commissioned without delay may help in avoiding flaring to a certain extent. However, any attempt to change the priorities would not only tantamount to sub-optimal use of natural gas, but, would also make us complacent towards other avenues for augmenting power availability. This needs to be avoided.

Apart from expediting commissioning of the ongoing thermal/hydel projects, improvement in the plant load factor (PLF) of the existing power stations and reduction of transmission and distribution losses can make a significant contribution towards improving the power situation in the country. Further, with abundant reserves of coal which can only be best

put to use in power generation, we cannot afford to push it to a secondary status which would be difficult to avoid once gas is made available to power as a matter of policy. To make thermal power plant give better results, there is also merit of working on the coal gasification technology which unambiguously gives improved efficiency over the conventional coal combustion technology.

Concern

On the gas pricing policy, one of the major considerations has been to use the administered price of gas as an instrument to generate surpluses for financing exploration/development of gas fields besides setting up infrastructural facilities for processing, transportation, storage etc. As a consequence, user industries have had to pay for gas at an escalating rate.

In fertilisers, this has contributed substantially to increasing payment of subsidy by the Government under the Retention Price Scheme (RPS) as the consequential higher cost of production cannot be passed on to the farmer who pays at a low rate i.e., the price statutorily notified by the Government, plus sales tax if any. Isolated treatment of rising fertiliser subsidy in turn, has led to perverted reorientation in fertiliser pricing policy thus making investment in this important core sector un-attractive. Consequential delays in finding interested promoters/mobilising needed resources have affected timely commissioning of fertiliser projects.

Power being almost exclusively in the Government sector until now pricing policy may not have a direct bearing on investment prospects. Nonetheless, charging high gas price does cause concern as in the face of bulk of the power supply and distribution being below cost, consequential higher cost of generation will pose a threat to the viability of the power plant.

By ensuring financial viability of the user industries, realistic pricing of gas can also contribute to its optimum utilisation. With power having been thrown open to the private sector who are expected to put more of their own resources in the projects as per recent policy pronouncements of the National Front Government, this has assumed even greater importance. In this connection, the recently reported recommendation of the Kelkar Committee to further raise the gas price by Rs 200 per 1000 cubic metres per annum for three years is disturbing. If adopted, this would not only impose a further burden on fertilisers and power, but, would also aggravate the problem of under