

Options for using surplus urea

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IN the emerging scenario of excess supply over demand, the Government is finding it increasingly difficult to accommodate the full quantities of urea produced at 100 per cent capacity utilisation of the plants under the Essential Commodities Act (ECA) allocation. Consequently, the units will necessarily have to explore other options to dispose of their surplus.

The domestic units engaged in the production of complex fertilisers, including DAP, use ammonia and urea as raw materials. Currently, the requirements for these are met almost entirely from imports.

A portion of these requirements can be supplied by the integrated ammonia/urea plants having a surplus after fully meeting their commitments under the ECA.

The export of surplus urea provides another option. The economics of these options needs to be carefully examined.

On sale to a manufacturer of complex fertilisers, the domestic units having surplus urea will realise the prevailing import parity price (IMPP) which is the C&F price plus handling and distribution cost.

At the current C&F price of \$120 per tonne and 5 per cent Customs duty, this works out to about Rs 7,000 per tonne.

After deducting freight and distribution margin, the net realisation from sale at this price will be about Rs 6,500 per tonne. It is only economical to undertake such a sale if the reasonable production cost is lower than this.

To assess the reasonable cost of production, it is important to see what level of production is covered under the ECA.

Let us assume that this represents 90 per cent utilisation of the capacity — this being the norm for a gas-based plant at which capital re-

lated charges (CRC) and other fixed costs are fully reimbursed under the retention price scheme (RPS). In this scenario, incremental production meant for sale to manufacturers of complex fertilisers will be available at variable cost.

The variable cost consists primarily of energy cost and the cost of bagging. Taking a gas to naphtha mix of 70:30, energy consumption of six million KCL per tonne of urea and the current cost of gas and naphtha, the energy cost for a gas-based plant works out to about Rs 4,000 per tonne. Including Rs 200 per tonne towards bagging, the variable cost will be Rs 4,200 per tonne.

Since this is lower than the net realisation from the sale at IMPP, the

only if production covered under the ECA is 90 per cent of the capacity. What happens if, this is less — say, 80 per cent? To arrive at the reasonable production cost for incremental quantities in the 80-90 per cent range, we have to add to the variable cost fixed costs including CRC.

While the latter varies from plant to plant depending on vintage, investment cost, technology and so on, let us take this as Rs 3,500 per tonne (used by the Dr Hanumantha Rao Committee for arriving at the uniform normative referral price)

In view of the above, the reasonable production cost of surplus urea in the 80-90 per cent range will be Rs 7,700 per tonne. This being higher than the net realisation of Rs 6,500

urea. To gauge the impact, let us consider this. A unit uses gas and naphtha in the ratio of 70:30 for the 'entire' production of urea including quantities for sale under ECA and non-ECA.

Now, if this ratio is used for determining energy cost for quantities covered by ECA, the energy cost for the non-ECA quantities will be the same — Rs 4,000 per tonne.

If, on the other hand, the quantum of gas (this is the cheaper feedstock) used for 'total' production is 'first' adjusted against the quantities under ECA, this will automatically result in non-ECA quantities being based 'entirely' on expensive naphtha.

As a result, the energy cost alone will escalate to about Rs 7,000 per tonne. This being higher than the net realisation at IMPP, it will not make sense to undertake production in excess of the quantities covered under the ECA.

To ensure optimum utilisation of the domestic production capacity, the Government should take the following steps:-

- Give ECA allocation to the units to the extent of covering production at least up to the normative capacity utilisation (for instance, 90 per cent for plants based on gas);

- Announce a 'clear-cut' and 'stable' policy permitting sale of urea produced in excess of the ECA allocation to complex manufacturers or for exports;

- For determining energy cost in respect of quantities covered by the ECA, the gas to naphtha mix should be in the same ratio as applicable to the 'full' production including both the ECA and non-ECA quantities.

The requirements of domestic units engaged in the production of complex fertilisers, are met almost entirely from imports. A portion of these requirements can be supplied by the integrated ammonia/urea plants having a surplus after fully meeting their commitments under the Essential Commodities Act. The Government must ensure optimum utilisation of the domestic production capacity.

unit will stand to gain by selling surplus urea to complex units.

In the case of exports, at the prevailing international price of \$100 per tonne f.o.b., the net realisation after deducting handling charges at the port and internal freight (from factory to the port) will be about Rs 4,000 per tonne. Since the variable cost at Rs 4200 per tonne is higher than this, export may not be economical.

The export of urea can become attractive only if the international price increases or there is reduction in the feedstock price, leading to a corresponding reduction in the variable cost.

The above conclusions are valid

per tonne at IMPP, such sale to the manufacturers of complex fertilisers will be uneconomical.

What will be the outcome if the unit is able to find a market for quantities representing 20 per cent of capacity covering the 80-100 per cent range?

In this scenario, the burden of CRC and other fixed costs will be halved to Rs 1,750 per tonne, leading to an overall production cost of Rs 5,950 per tonne (Rs 4,200+Rs 1750). Consequently, the sale will be economical.

The method of allowing energy cost in respect of production for sale under the ECA also affects the economics of producing/selling surplus

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