

## Pricing formula for fertiliser units

## Penalties for efficiency

**T**HE retention pricing package for the sixth pricing period (April 1, 1991, to March 31, 1994) put up by the Department of Fertilisers (DoF) has a suggestion which, if implemented, will seriously affect profitability of the new gas-based nitrogenous plants.

It has been recommended that, for such units, while computing the subsidy payable to the producer, the capital-related charges will be cut to the extent of 50 per cent for production in excess of 110 per cent capacity utilisation but up to 120 per cent while for utilisation above 120 per cent, these charges will be completely disallowed.

Being retrospective, the manufacturers would either be denied the arrears of subsidy for the last three years on account of the upward revision in the retention price due to various escalations in conversion and capital-related cost, or, even made to refund monies to the Government.

The proposal mooted by the DoF appears to have originated from the recommendation of the JPC which suggested capital charges on the entire production in excess of 110 per cent completely disallowed.

Retention price for urea manufactured by any unit includes broadly four elements of cost: capital-related charges, other fixed cost (wages and salaries, overhead cost, repairs and maintenance), variable cost and marketing and selling expenses. Whereas for allowing variable cost, certain norms with regard to consumption of feedstock i.e. gas and utilities are assumed, the fixed expenses including capital-related charges like interest, return and depreciation, are normalised at prescribed norm of capacity utilisation. For an ammonia-urea plant-based on gas, the prescribed utilisation norm is 90 per cent for second to tenth year from the start of commercial production. It is 85 per cent from the 11th year.

### Three components

The DoF recommendation relevant to capital-related charges is an important element of fixed cost and consists of three components: depreciation, interest and return. Depreciation is now allowed on the basis of 6.33 per cent (related to 15 years life of plant and machinery), while interest is allowed as per the actuals on the borrowings.

As regards return, it is allowed on the basis of 12 per cent post-tax on net worth and is computed on a pre-tax basis, grossing up for the prevailing rate of corporate tax. Now, if on these three counts put together, 'X' is the total expenditure that is permitted to be recovered in any given year, and 'Y' is the installed capacity of the plant, then an element  $X/0.9Y$  will be built into the retention price for the unit towards capital-related charges.

The new pricing formula, if implemented, could deal a body blow to the fertiliser industry, particularly gas-based nitrogenous plants. Worse, some units, far from getting any subsidy, will have to part with substantial sums of money by way of arrears to the Government. With even the few incentives left for higher productivity scrapped, can the industry hope to maintain a healthy bottomline, asks Uttam Gupta.

Consequently, if the unit produces 0.9Y of the product, it would recover the full expenditure ( $X/0.8Y \times 0.9Y$ ), and if, however, it produces more say 'Y' (i.e. it operates at 100 per cent) the recovery will be more by a factor of 1/9 and if it produces less, say 0.8Y (80 per cent utilisation), there would be under-recovery by a factor of 1/9. Consequently, the profitability would be more in the former and less in the latter situation when compared to the norm of 12 per cent.

Contrary to the impression held in some quarters, the return under RPS is not guaranteed; it is related to the level of performance of the company or its efficiency. Specifically, it is not as if the bonus on capital charges above 90 per cent comes automatically. It has to be earned by working harder.

The proposal of DoF seeks to take away precisely this incentive on production in excess of 110 per cent. Consider a urea manufacturing unit with an installed capacity of 770,000 tonnes per annum which gets a retention price of about Rs. 5,000 per tonne. Further, assume this includes an element of Rs. 2,000 a tonne towards depreciation, interest and return computed on the above basis. The proposed 110 per cent of 770,000 tonnes works out at 847,000 tonnes.

In terms of the JPC recommendation, up to this level, the unit will continue to be paid subsidy on the basis of Rs. 5,000 per tonne. Beyond, however, subsidy would be based only on the basis of Rs. 3,000 per tonne i.e. excluding the capital-related charges. In fact, taking the present controlled selling price of urea at Rs. 3,320 per tonne and distribution margin on an average of Rs. 140 per tonne (also fixed by the Government), giving a net realisation of Rs. 3,180 per tonne, this would result in a negative subsidy of Rs. 180 per tonne.

In other words, for every additional tonne produced by the unit above the 847,000-tonne level, it will have to pay back to the Government that much extra money. In terms of the DoF recommendation, whereas this would be the case with production in excess of 120 per cent, in the 110-120 per cent range, the knock-off will be Rs. 1,000 per tonne.

As per the JPC formula, if a unit operates at 120 per cent capacity utilisation in any given year i.e. producing 77,000 tonnes more than the benchmark of 110 per cent, it would end up with a financial loss of about Rs. 15.5 crores ( $2000 \times 0.77$ ) and will be reimbursing to the Government a negative subsidy of about Rs. 1.4 crores ( $180 \times 0.77$ ). According to the DoF formula, the financial loss would be just about half i.e. Rs. 7.75 crores, but, still substantial.

### Undesirable options

It may be clarified that operating a plant above 110 per cent capacity involves extraordinary efforts including necessary modification of equipment particularly in view of heavy odds like supply of lower calorific value of gas.

In such circumstances, the captive power and steam generation plants may have to be put on alternative fuel, naphtha/fuel oil, which are not only difficult to work with, but also more costly than gas. Besides, putting the off-site facilities on naphtha or fuel oil on a permanent basis may even affect the reliability of plant operations in the long run.

The possibility of increased consumption of feedstock/energy at higher capacity maintenance as also higher expenditure on repairs and maintenance is not ruled out. Notwithstanding these adverse possibilities and consequent additional costs, the plants were operated at higher utilisation levels primarily in view of the bonus available through the capital-related charges.

Had the proposed change been made known to manufacturers in advance i.e. before the commencement of the pricing period (April 1, 1991), they would not have produced more than 110 per cent as, far from generating any incremental income, there could even be a loss.

It has also to be considered that whereas in some years plants may be operated above 110 per cent, it is not possible to sustain it. During the past four years, 1990-91 to 1993-94, Indo-Gulf and Kribhco exceeded 110 per cent only once while NFL Vijapur did it twice.

With a severe cut in gas supply to almost all the gas-based plants — both onshore and off-

shore — in the process of being implemented, the availability may get reduced, impacting capacity utilisation. In fact, towards the end of this year, because of certain works likely to be undertaken by ONGC/GAIL, supplies could be cut to 50 per cent of existing levels for a minimum of 40 to 50 days. During this period, fertiliser production at these plants could come to a grinding halt.

Considering that pricing is done at 90 per cent capacity utilisation, the companies will not only be not recovering fully the conversion and capital-related charges but may even land up making losses. Under the RPS, which is a normative system, there is no mechanism for compensating such losses.

It is important to know the reasons behind the JPC's making this recommendation. The reason is mentioned in its report: the new gas-based projects have under-declared their capacity. Assuming for a moment that this was indeed true, it is important to understand the financial implications.

### The 'hidden factor'

Based on the example given above, instead of 'Y', the actual capacity is  $(Y+DY)$ , DY being the so-called "hidden factor". The normative production level at 90 per cent would be 0.9  $(Y+DY)$ . Consequently, with 'X' as the permissible capital-related charges, the per tonne reimbursement through RP, should have been  $X/0.9 (Y+DY)$  instead of  $X/0.9Y$  now allowed.

Because of the hidden factor, the unit gets away with a higher RP and, consequently, subsidy from the Government by the factor of  $DY/(Y+DY)$  applied to the capital charges currently being allowed to the unit.

In the cited example, 770,000 tonnes being the declared capacity and assuming 10 per cent hidden factor, this would work out at about Rs. 180 per tonne ( $2000 \times 0.77/8.47$ ). This benefit is purportedly available to the unit on the entire production up to 110 per cent level (8.47 lakh tonnes) and would aggregate to about Rs. 15 crores ( $180 \times 8.47$ ). Hence the argument: Mop up the benefit by denying capital-related charges above 110-per cent level.

The Minister of State for Fertilisers is on record having stated in Parliament that there is no evidence of any gas-based plants having understated their capacity. That apart, the licensed capacity of the plants was testified by the Government, approved process licensors and equipment suppliers and subjected to rigorous scrutiny by various agencies of the Government, including financial institutions/commercial banks, DGTD and even detailed technical examination by the JPC which fixes the retention price.

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