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It is absolutely necessary to project the energy saving measures in terms of gain/loss in financial profit for marketing the energy efficiency programme in industries. At the same time it requires in-depth analysis in terms of absolute figures as well as the actual energy consumption in terms of energy units. Let us consider the following cases,

Case-1

In boom periods industries make considerable profits and hence the fractional energy cost will be low. As natural the management will be happy with the profits. The approach will then depend on the management, may encourage full heartedly in energy efficiency programme or they may not, in which case the financial figures in the energy audit report will not make any difference and will remain an another figure in the report.

Case-2

During recession periods industries may make less or negative profit. In this case the fractional energy cost will be high and as natural the energy manager will be targeted for innovative measures for energy cost reduction but without or with minimum investment. Not only the energy cost but each and every component of the expenditure will be analyzed and will be looked for cost reduction measures even the Grass cutting expenditure!. Any financial figures incorporated in the energy audit report will be considered serious and the energy manager has to equip himself to face the management/share holders with his justification for any energy efficiency programme which may need additional investment.

In the above two cases we assume that the unit energy cost remains same and the consumption levels also remain the same.

Case-3

Let us consider an Industry which consumed 1.00 Lakh units of energy in the year 2003 and the energy cost per unit be Rs.5/-. The total energy cost would be Rs.5.00 Lakh. Let us assume the profit before tax is Rs.10.00 Lakh and the % of the fractional energy cost would be 50% ($5 \times 100 / 10$). In the year 2004 the same industry consumed only 0.90 Lakh units of energy for the same production but the unit energy cost increased to Rs.6/-. However the unit maintains the same profit by transferring the increased energy cost to the customers. Now the

% of the fractional energy cost over the PBT would be 54% ($0.90 \times 6.0 \times 100 / 10$). Can we say the increase in the energy cost has not resulted in increased profit?

Case-4

Let us assume that the above industry makes profit before tax only Rs.8.00 Lakh in the year 2004 due to rise in the unit energy cost and now the % of fractional energy cost would be 67.5% against a reduction of 10% in energy consumption ($0.90 \times 6.0 \times 100 / 8.0$). The plant is unable to transfer the increased energy cost to customers or to any other sales component due to the competitive market hence the profit level came down. Therefore in this case there will be no energy cost saving though there is a marginal savings in energy consumption. Any conclusion derived based on previous year's energy cost will have no meaning.

Therefore the best way to incorporate the financial figures in the energy audit report would be comparing the energy consumption with standards or bench marks available/created for energy consumption for a particular product/industry and unit cost prevailing then.
