

Article # 12

A. Kaupp

Energy Conservation Award - A New Approach

The annual national energy conservation award from the Ministry of Power has been a highly successful program for the last 12 years. The program has been the only serious effort to collect detailed and comprehensive data on energy efficiency measures being implemented in industry. The awards acknowledged not only reductions in energy consumption, but also honored genuine efforts to reduce energy costs in a financially attractive way. It also emphasized plant staff participation and measures that may be classified as “true energy efficiency measures”. Furthermore, the award scheme gave a rough overview about the level of investment and initial benefits of winning measures, helping others replicate the successes.

All this will change in the future with the mandatory certification and assignment of energy managers and the introduction of a mandatory reporting scheme for at least 8 particularly energy intensive industrial sectors. In the light of these new requirements, a revised HRD award scheme is being developed. This paper discusses some of the new approaches, being considered, for this award and solicits members input.

The previous award scheme had limitations, as it was open only to limited sectors of industry. The new scheme will expand the participant base to beyond 200, because there may be at least 1000 more firms out there investing in energy efficiency measures due to the new mandatory energy audits.

Furthermore, the new award scheme will include participants from lower segments of the performance bandwidth of an industrial sector. For all those who missed the discussion about the performance bandwidth in India, the issue is not that India is particularly energy inefficient. There is always one to five firms in each sector achieving the world standard in energy management and specific energy cost. However, these accomplishments and know-how do not seem to trickle down to other, say, 254 firms manufacturing the same product at up to double the specific energy consumption. In other words, there is a very large “performance bandwidth” between the best and worst performing companies in a sector. This phenomena, called market distortion, simply lowers the average efficiency for the sector. Including participants from the lower bandwidths in the new award scheme is important because it will help show that even the poor performers can make dramatic efficiency improvements, and that energy efficiency is not just for the state-of-the-art operations.

Another issue in an award scheme is how we define a “measure to improve energy efficiency”.

However, there are still some issues that need to be finalized for the new award scheme. In particular, how should we define a “measure to improve energy efficiency”? In the previous quiz # 04 on this webpage the subtle differences between measures that reduce energy costs but increase energy consumption, and those reducing both were highlighted.

Also, how do we treat a “modernization” measure such as the purchase of a highly efficient steam boiler to replace an aging steam boiler? Shall we call this an energy efficiency measure, or just an investment that would have happened anyway? Without looking into how the decision to invest in this new boiler was arrived at, it is difficult to tell whether it was a business as usual deal or an intervention for the sake of improved energy efficiency.

It should also be remembered that it is human beings who make a firm energy efficient, not necessarily energy efficient machines. The latter are only the means. Consequently, there should also be among the many award categories one honoring a firm’s human resource development for more energy efficient production.

There are many ways to make an award system more diverse, but as well more complex.

The award proposal is attached and open to public discussion as well as improvement by subscribers to this page. We are inviting positive and negative comments concerning (i) approach, (ii) practicality, (iii) fairness.

Your comments focusing on (i), (ii) and (iii) may lead to a better understanding how BEE could structure an HRD Award in the future.

Concept Note on Human Resource Development Award for Energy Efficiency

Justification for award

Surveys have shown that a high percentage of energy efficiency and conservation measures require mostly improved process monitoring and control with little investment. Furthermore, retrofitting or modernization of equipment to improve design efficiency is usually not so effective without improved human resource development and incentive schemes in a firm. This will also improve sustainability of the energy conservations efforts and better the chances that equipment will be operated close to its design efficiency or benchmark.

Proposal for award specific queries¹

1. Annual turnover of plant **X** Rs

2. Names and affiliation of plant staff directly involved in energy efficiency and conservation measures

#	Full name	Department	Position	Employed since

3. Total annual salary including all perks of staff listed under Para 2 **Y** Rs

4. Annual budget for human resource development for energy efficiency **Z** Rs

#	Item	Budgeted, Rs	Actual, Rs
1	In house training ²		
2	Workshop or seminar attendance, local in India ³		
3	Workshop or seminar attendance, overseas ⁴		
4	Cash incentives to staff listed under Para 2 ⁵		
5	Other incentives given ⁶		
6	Sum, Rupees for year _____	Z	A

5. Merit indicators

Disbursed: A/Z x 100

Intensity - H: A/Y x 100

Intensity - P: A/X x 100

¹These are queries in addition to the standard report the firm is required to submit about energy conservation activities and impact in a budget year.

²List on separate sheet all in house training by date, duration, number of staff attend and topic. Also indicate whether training was done by own staff or by hired consultants.

³List on separate sheet event and venue, who has conducted the event, duration, number of staff attended.

⁴List on separate sheet event and venue, who has conducted the event, duration, number of staff attended.

⁵Direct cash incentives to selected staff for efforts towards energy cost reduction. Attach information about incentive schemes and merit criteria if available.

⁶State other incentives not given in cash and also different from item 1 - 3, but have a monetary value to recipient.