

Article # 18

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Energy Auditors under the EC Act: loved, redundant or a nuisance?

The very interesting replies concerning issue # 17, "Energy Auditor Performance: Do we need to check it!" inspires feedback. I noted with interest but skepticism that most writers fear that the Act may trigger bad quality audit reports as happened in the past when States introduced similar laws, but believe that a quality control check by BEE or a State Agency will improve energy audit reports. Except for one contribution, there is little confidence that the market will decide which auditors are good and which are bad, and weed out poor performers by not giving them business.

As argued many times over, a law such as the Energy Conservation Act needs to be marketed and not enforced. The verdict to what extent an energy audit is a quality one, a fake one, or a bad one will be decided by the client firm and not some government appointed group of experts or committee. I am not worried at all about a designated consumer deciding to have a fake energy audit just to satisfy the law. Let these firms do it. They will lose Rs. 10,000 in audit fees and perhaps several lakhs of Rupees in lost opportunities to cut energy costs. In a free market economy, firms have to close shop every day, not because of a lack of money, but because of bad management style, a lack of vision, or because excessive risks were taken. Let them die out! It will only improve the overall Indian economy.

My concern is the opposite. Many firms don't know the difference between a good or bad energy audit report, and therefore will end up paying the same high price for a bad energy audit report and recommendations as they would for an excellent audit. Therefore the bad auditors will not die out but continue to thrive like weeds, some of the truly good energy auditors will be choked out, and firms will fail to realize the total potential energy savings and may become disillusioned with the process.

Another issue I see is that almost all firms rue energy auditors' lack of understanding and know-how of their industrial process. Conversely, many energy auditors rue the short amount of time allocated for an energy audit, and would like much more time and plant information to focus on very specific areas of energy conservation in a firm. So who's perspective is right? Both sides are right! Firms and energy auditors need to develop long-term relationships with one another so that the energy auditor can gain the detailed understanding of the firm process and equipment specifics, and be able to develop the best long-term, cost-effective recommendations.

Just about anyone without instrumentation nor credentials to be an energy auditor can roam through industrial plants not belonging to the top 20% of each sector and notice that applying common sense combined with the right attitude could save crores of rupees sector-wide. One does not have to dig deeply into specifics of combustion systems if walking under steam distribution lines feels like visiting a Turkish steam bath. However improving an already very efficient system by 0.5 % will require extensive know-how of the technology and industrial process. This will only come through developing long term relationships between the firm and energy auditor.

How do we spell success? The Act roughly covers firms with annual energy costs of Rs. 15 Crore (US\$ 3.3 Million) to Rs 15,000 Crore (US\$ 3.3 Billion) in India. The intention of the EC-Act and its provision is fulfilled if the following scenario becomes a standard practice:

"A designated consumer allocates between 0.1% and 0.5% of his annual energy costs for keeping an energy auditor on a retainer contract as an intellectual sparring partner for the identification, appraisal, implementation, and verification of financially attractive energy conservation measures for the firm."

I don't have to leave my desk and engage in expensive studies to know that a professional energy auditor given the chance to work with a firm on a long-term arrangement can easily reduce the specific energy consumption by 0.2% to 1% annually over 10 years. This is a forgone conclusion. In other words, the firm's specific energy consumption will roughly drop by 2% to 10%, respectively, over 10 years. Most firms except those with State-of-the-Art technology **and** State-of-the-Art management can achieve such a target. Note that State-of-the-Art management is needed as well, because State-of-the-Art technology combined with museum style management practices may ruin any State-of-the-Art Technology with respect to energy efficiency.

Quiz: As a sideline let us take a quick quiz on this topic. Assume that: 1) An energy auditor is paid 0.1% of the annual energy costs of a firm for an energy audit, 2) the firm has an annual energy bill of Rs 150 Crore, 3) the energy auditor's recommendations are simply improved housekeeping measures and changing attitudes, and 4) the auditor's advice saves 0.1 % energy costs every year over 10 years. What is the firm's net present value for this advice over a 10 year period? Send us the answer!

One may call this arrangement of energy auditors under a retainer contract a government sponsored marriage with the option for a divorce if either party is dissatisfied with the performance of the other. In the absence of widespread enthusiasm for such an arrangement one may resort to a minimum strategy to monitor energy auditor quality to improve transparency and conformity with regard to audits as follows:

- (i) Accredited energy auditor firms have a reserved page at www.energymanagertraining.com. All details about the firms' activities and credentials are found there.
- (ii) The accredited energy auditor firm is asked to update online a list of their energy audits every time a new audit is completed and provide some bare minimum specifics about this audit, such as who was the client, which industrial sector, and an executive summary without disclosing any proprietary information.
- (iii) All energy managers who are subscribers to the web page have access to a complete up to date history of accredited energy auditors including their work and sectors serviced.
- (iv) From the information received on the energy auditor webpages BEE may automatically send a feedback form to the audited client and ask for an assessment of the comprehensiveness and quality of the energy auditor's work.
- (v) BEE may analyze feedbacks and publish a general summary of findings. However BEE cannot intervene in any disputes except through appointed committees.
- (vi) There will be recommendations (future codes) for how to conduct energy audits and present results. The present practice of energy auditors conducting audits any way they wish, calculating and analyzing their findings using all kinds of right, wrong and strange algorithms, and reporting their findings "free style" should be abolished.

The above recommendations will streamline business relations between energy auditors and designated consumers as well as supports BEE in her mandate. If every thing fails, why not try the well established system overseas of requiring all practicing professional engineers to carry insurance against professional misconduct, whatever that is!