



ASIAN PRODUCTIVITY ORGANIZATION

## PROJECT NOTIFICATION

17 February 2014

1. **Project Code** 14-IN-94-GE-WSP-B
2. **Title** Practice-oriented Workshop on Energy Audits and Energy Efficiency
3. **Timing and Duration** 2–11 June 2014 (10 days)
4. **Venue** Chennai, India
5. **Implementing Organization** Dr. Ambedkar Institute of Productivity  
(National Productivity Council)  
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6. **Number of Overseas Participants** Up to 18 qualified participants from Bangladesh, Cambodia, Republic of China, Fiji, IR Iran, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Vietnam. However, other member countries with special interest in the subject are also encouraged to apply.
7. **Number of Local Participants** Up to six qualified participants
8. **Closing Date for Nominations** 30 April 2014  
All nominations along with the **completed biodata** form and medical certificate of the nominees should reach the APO Secretariat by the above date. Selection of participants will be completed immediately after this date. Member countries are requested to inform the APO Secretariat as soon as possible if they decide not to nominate anyone for the project.
9. **Objectives**

To provide an opportunity for industry managers and professionals to understand the practical methodology and major components of energy audits and enable them to reduce energy consumption and improve energy performance in organizations.

## **10. Background**

There are significant differences between the theory and practice of energy audits and energy management. APO experience in training in the field of energy management and auditing showed that while participants understood the theoretical concepts very well, it was much more challenging to translate the theory into practice and reap the benefits in form of energy savings. Generally, a new energy engineer has to work under an experienced energy auditor for at least three years and be exposed to industrial energy-consuming equipment before being able to carry out energy audits independently. Energy-efficient technologies and practices are being increasingly adopted worldwide, although more needs to be done in both the private and public sectors, especially in the Asia-Pacific region where growing demand for energy supplies, emerging environmental issues, and increased stress on aging energy infrastructure have become evident.

The Center of Excellence for Training in Energy Efficiency (CETEE) is a unique, world-class, hands-on training center in the NPC conceived with the objective of bridging the gap between energy efficiency theory and practice. This facility was built, operated, and handed over to Indian energy auditors after extensive training by Japanese experts. All the equipment in the facility were provided by Japan as part of an Indo-Japanese aid project. In this facility, practical industrial-scale models of energy equipment such as compressors, fans, pump, furnaces, boilers, lighting systems, heat exchangers, energy-efficient motors, etc. are available so that participants can conduct trials and see energy savings being achieved. They will then be able to suggest similar measures in their industries and sites where they conduct energy audits. Detailed information on CETEE is available at [www.cetee.in](http://www.cetee.in).

## **11. Scope and Methodology**

### **Scope**

- Global energy scenario;
- Reviewing concepts and fundamentals of energy audits;
- Energy efficiency demonstration: fans, blowers, compressors, lighting systems, motors;
- Energy efficiency demonstration: boilers, steam traps, furnaces, heat exchangers;
- Case studies in thermal and electrical systems; and
- Overview of renewable energy options with demonstrations

### **Methodology**

Presentations, hands-on operation, demonstrations, observational site visits, preparation and presentation of action plans, and exam.

The workshop will consist of interactive sessions on theme presentations, sharing of country experience in energy audits and energy efficiency, individual/group exercises, and field visits to observe relevant facilities.

The tentative program of the workshop is given below:

<b>Date/Time</b>	<b>Activity</b>
Sun., 1 June 2014	Arrival of participants in Chennai
Mon., 2 June	Opening session Presentation of resource papers
Tues., 3 June	Presentation of resource papers Presentation of country papers
Wed., 4 June	Presentation of country papers Group exercise
Thu., 5 June	Hands on exercise on pumping system
Fri., 6 June	Hands-on exercise on lighting system Group exercise and presentation
Sat., 7 June	Field visits to Milk dairy plant
Sun., 8 June	Field Visits
Mon., 9 June	Hands-on exercise on electric motors
Tues., 10 June	Field visits to relevant farms, companies, or organizations
Wed., 11 June	Presentation of group discussion output Program evaluation by participants, resource persons, and implementing organization, Closing session
Thu., 12 June	Departure of participants

## **12. Qualification of Candidates**

The participants are expected to possess the following qualifications:

Present Position	Managers responsible for energy management, consultants, and professionals working in the field of energy management/energy efficiency/auditing. (This workshop is meant for only industries and consultants/auditors)
Experience	At least three years of experience in the position described above.
Education	University degree or equivalent qualification from a recognized university/institution.
Language	All proceedings of the project are conducted in English, and participants are frequently required to make oral and written presentations. They must therefore be proficient in spoken and written English. Those who are not proficient in English will not be accepted.
Health	Physically and mentally fit to attend an intensive project requiring participants to complete a number of individual and group activities and strenuous fieldwork. It is therefore recommended that member countries do not nominate candidates likely to suffer from physical and mental stress.

Age	Preferably between 35 and 50 years.
APO Certificate	Participants are required to attend the entire program to receive the APO certificate of attendance.

### **13. Financial Arrangements**

#### **To be borne by participants or participating countries**

- a. Participants' insurance premiums: All participants should be fully insured against accident and illness (including hospitalization and death) for a principal sum equivalent to US\$10,000.00 for the entire duration of the project and travel, and must submit to the APO Secretariat a copy of the comprehensive travel insurance certificate before participation. Such insurance should be valid in the host country. This insurance requirement is in addition to existing government insurance coverage in some member countries. If any participant is unable to insure himself/herself as stipulated above, he/she should secure this insurance in the host country at the commencement of the project and pay the premium himself/herself, if necessary, from the per diem allowance provided. Neither the APO nor the implementing organizations will be responsible for any eventuality arising from accident or illness.
- b. All expenses related to visa fees and airport taxes.
- c. Any expenses incurred by participants for stopovers on the way to and from the project venue as well as for extra stay at the project venue before and/or after the official project period because of early arrival or late departure, for example, due to either limited available flights or any other reason.

#### **To be borne by the host country—India**

- a. Per diem allowances and hotel accommodation for up to 18 overseas participants for up to 11 days at the rate to be specified later.
- b. All local implementation costs.

#### **To be borne by the APO**

- a. All assignment costs of overseas resource persons.
- b. Round-trip economy-class international airfare by the most direct route between the international airport nearest to the participants' place of work and Chennai, India. As far as practicable, all participants should purchase discount tickets. Please note that the arrangements for the purchase of air tickets should follow the "Guide on Purchases of Air Tickets for APO Participants," which will be sent to the selected participants. It is also available on the APO website and from APO Liaison Officers in member countries.

### **14. Actions by Participating Countries**

- a. Each participating country is requested to nominate three or more candidates in the order of preference. Please ensure that candidates nominated meet the qualifications specified under section 12 above.

- b. No form of self-nomination will be accepted. All nominations must be endorsed and submitted by an APO Director, Alternative Director, Liaison Officer, or their designated officer.
- c. Please note that nomination of a candidate does not necessarily guarantee that he/she will be selected. Selection is at the discretion of the APO Secretariat. A basic criterion for selection is the homogeneity of the participants in terms of qualifications and work experience. Nonselection therefore does not mean that the candidates concerned are not competent enough. Sometimes candidates are not selected because they are overqualified for a project.
- d. Each nomination should be accompanied by the necessary documents. A nomination lacking any of these documents may not be considered: two copies of the candidate's biodata on the APO biodata form together with a passport-sized photograph. The biodata form can be downloaded from the APO website ([www.apo-tokyo.org](http://www.apo-tokyo.org)). We encourage submitting the biodata form to the APO Secretariat in electronic form as an attachment to a cover e-mail message from the APO Director, Alternate Director, or Liaison Officer. The nomination documents should be sent to the Industry Department, APO Secretariat (e-mail: [ind@apo-tokyo.org](mailto:ind@apo-tokyo.org), fax: 81-3-5840-5324).
- e. The APO Medical and Insurance Declaration/Certification Form. Every candidate must complete and submit a copy of the APO Medical and Insurance Declaration/Certification Form with his/her biodata at the time of nomination. Please note that self-declaration is sufficient for candidates without any of health conditions or illnesses listed on the reverse side of the medical form. However, for all others, medical certification by a licensed physician on the reverse side of the medical form is required.
- f. Necessary documents are to be submitted electronically. In that case, there is no need to send a hard copy by postal mail. However, if the documents are submitted by fax, member countries are requested to mail the originals of the documents to the APO Secretariat as well. If a digital photograph of a nominee is not attached to the electronic biodata form, a hard-copy photograph should be sent to the APO Secretariat by postal mail. Please give the candidate's name and the project code on the reverse side of the photograph.
- g. Member countries are requested to adhere to the nomination deadline given on page 1. The APO Secretariat may not consider late nominations as they have in the past resulted in considerable difficulties to the implementing organization in its preparatory work for the project.
- h. For member countries where nominations are required to be approved by higher government authorities and require a longer time, the APO Liaison Officers/NPOs are urged to send the names of nominees on or before the deadline, indicating that government approval will follow.
- i. If a selected participant becomes unable to attend, he/she should inform the APO Liaison Officer/NPO in his/her country immediately and give the reason for withdrawal. The NPO concerned is requested to transmit that information to the APO Secretariat and the host country promptly.

- j. NPOs are requested to inform the selected participants that they are not to bring family members or to engage in any private business activities during the entire duration of the project.
- k. Each selected participant should be informed to arrive at the venue one day before the start of the official project. Also, he/she is expected to return home upon completion of the official project because he/she is visiting the host country for the specific purpose of attending this APO workshop.
- l. NPOs should inform participants that they must attend all five days of the project to qualify for the certificate of attendance.

#### **15. Actions by the APO Secretariat**


- a. Under normal circumstances, candidates who are selected will be informed of their acceptance at least four weeks prior to the start of the project.
- b. If some candidates fail to qualify or be unable to participate after selection, or if some member countries fail to nominate any candidate, their slots may be filled by alternates from the same or another member country on a merit basis.

#### **16 Project Preparation**

Each selected candidate is requested to prepare a country paper following the guidelines to be provided later.

#### **17. Guide for Participants**

Other conditions for participation are given in the *APO Guide for Participants*, which is available from APO Liaison Officers/NPOs in member countries and on the APO homepage ([http://www.apo-tokyo.org/05part\\_guide.htm](http://www.apo-tokyo.org/05part_guide.htm)).



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Secretary-General