

2011

Renewable Energy & Energy Efficiency Centre

REEEC

Knowledge based services to SMEs; Exposure to students in energy related projects; Short term Certification program in Energy Conservation and Management



“Renewable Energy and Energy Efficiency Centre” (REEEC) and “Certificate course on Energy Conservation and Management”

Bureau of Energy Efficiency (BEE) has been set up as the national apex body to bring out regulatory and promotional policies and programs to foster energy efficiency in the country as per the Energy Conservation Act 2001, as well as to implement and enforce various provisions of the Act. For this, as per the Act, institutions are identified in different States as State Designated Agencies (SDAs) for effective local coordination and enforcement. As part of its efforts to strengthen the energy efficiency service delivery, BEE has promoted Energy Efficiency Services Limited (EESL) as a JV company, which shall act as a consultancy and energy service company (ESCO). BEE, as per the Act, has certified energy professionals as Certified Energy Auditors (CEA) and Certified Energy Managers (CEM) through a national level certification process which include an examination. It is in the process of creating another cadre of approved energy auditors capable enough to undertake energy audits in Designate Consumers (those consuming energy above a threshold limit) terming them as Accredited Energy Auditors (AEA). BEE has enticed many SDAs to create Energy Conservation Fund (as per Section 16 of the Act) by providing a token central contribution to the State Fund. Many SDAs have issued Government Orders to this effect, but the strategies for fund generation as well as utilisation are not spelt out. Therefore, BEE has advised the SDAs to take up assessment of waste heat recovery potential and preparation of annual energy savings plan for the States (to start with, in two sectors from among industrial, domestic, commercial, municipalities or agriculture) utilising the funds provided by BEE. Further to this, EESL has approached these SDAs offering them their services to undertake these programs. Most of the SDAs have by now commissioned these studies through EESL. EESL, with its national headquarters in New Delhi has outsourced these tasks to certain identified national energy consultants. Such energy consultants approved by BEE/ EESL are also awarded work on e-filing energy returns of DCs, establishment of baseline energy consumption of DCs for the PAT mechanism, energy efficiency in SMEs, etc. These national energy consultants, after getting the work awarded by BEE/ EESL, look for local partners to further sub-contract the job. As the primary or even secondary data collection and interviews are being done by the local partner, the national energy consultants normally depute one middle or junior level executive to coordinate the local action and the liaison with the SDA (which normally lacks adequately qualified and trained personnel in energy management field). Through this step-by-step delegation, in most of the places, a wrong local partner has been identified who mostly receives wrong directions from the deputed middle or junior level executive of the national energy consultant. Needless to say that, with so much of efforts in different levels, the final outcome tends to be not useful enough and the report gets filed as another document. One of the identified lacunas is in the inadequate expertise of local technical partner. Wherever, local partners could mobilise adequate technical experts, the available (low) cost prohibits them to do so.

Society of Energy Engineers and Managers (SEEM) the national professional association of CEAs and CEMs, set up in 2005, having 14 State Chapters and 6 State Coordinators work towards energy efficiency by focusing mainly on bridging gaps, particularly in the knowledge

based space. To this effect, realising that India doesn't have a magazine on "energy management", SEEM initiated a print quarterly publication called 'energy manager' from January 2008, with the support from the French Government Agency for Environment and Energy Management (ADEME). Sensing that many SDAs do not have in-house expertise for addressing the issue of amendments to Energy Conservation Building Code (which is supposed to be done by the State Government as per section 15 (a) of the Act), SEEM has created a 'State-level resource pool of building energy experts' through a sensitisation campaign in 16 States in 2009-10 and passed on their details to SDAs. SEEM is also very much involved in skill up-gradation exercises for its members. SEEM, while completing its sixth year, has launched a centre of excellence called "Centre for Energy Studies and Policy Analysis" (CESPA) to provide structured delivery of our capacity building programs. We are involved in healthy debates with BEE and other SDAs. Instead of resorting to worthless criticisms, we involve and try to fill the gaps to the extent possible from our side.

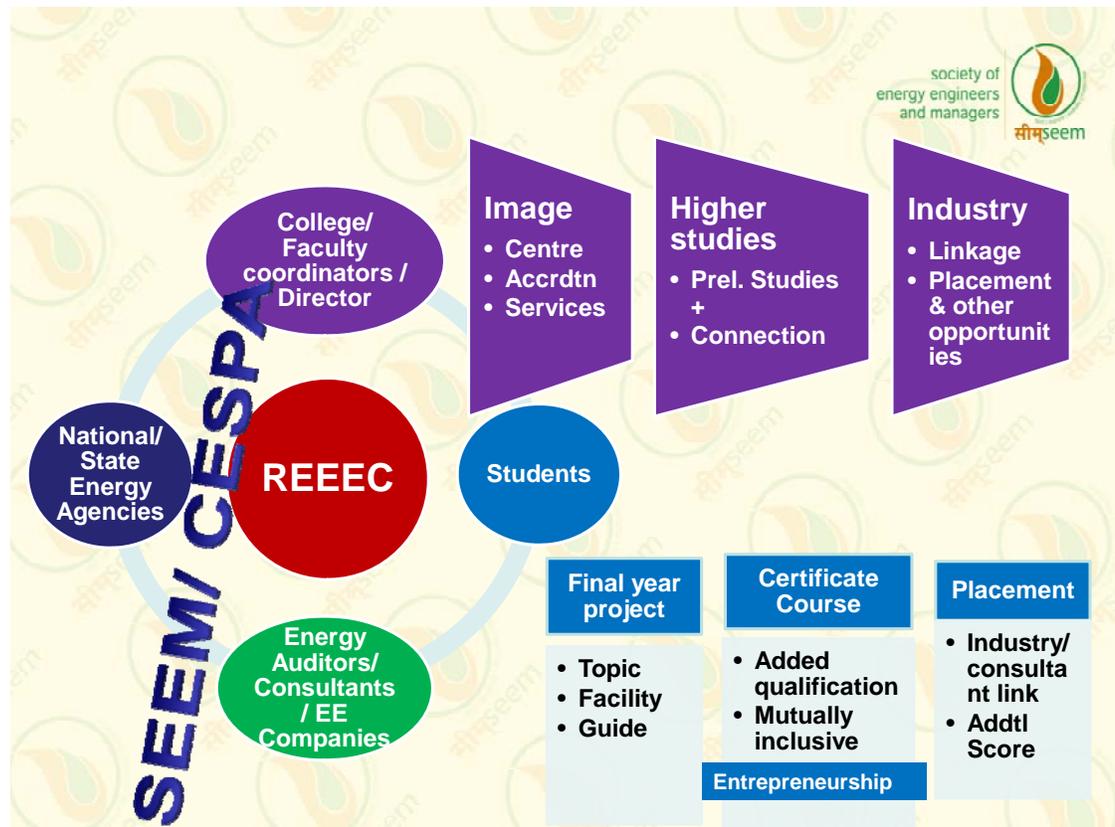
Ministry of New and Renewable Energy (MNRE) is the federal agency in the country promoting renewable energy programs, through their State Nodal Agencies (SNA) and host of approved manufacturers, consultants, experts, etc. Activities in solar energy field, particularly, are very topical in India now with the 20 GW Jawaharlal Nehru National Solar Mission being implemented. With the winding up of the Integrated Rural Energy Program (IREP), many SNAs are forced to cut-short their district technical teams looking after the IREP. With the historic 73rd and 74th amendment of the Indian Constitution, many renewable energy programs like the biogas, small hydel, etc. and maintenance of street lights were transferred to the three tier local self government institutions (LSGI). Many LSGIs, for want of technical personnel are not able to take up active interest in energy programs, though they are convinced of the need to address this issue with great importance for energy security as well as local community development through better energy services.

In these contexts, to make use of the available technical expertise in Engineering Colleges spread across this country and also design useful deliverables for them (the College, its Faculty and Students), CESPA/ SEEM has launched a national endeavour of establishing "Renewable Energy and Energy Efficiency Centre" (REEEC) in interested and selected Engineering Colleges. Faculty members involved with REEEC shall be imparted necessary training enabling them to act as local technical partners for the local / national energy auditors/ consultants. REEEC would also act as a consultant providing knowledge based energy services to the nearby SMEs. Pre-final year students of such colleges would be offered an add-on "Certificate course on Energy Conservation and Management" with class room sessions and industry visits for a fortnight during the semester break and they would be guided to take up and undertake energy related project as their academic project. CESPA/ SEEM will organise the course and also arrange for external project guides. This certificate course, in addition as an added qualification, will also help them to gain employment in energy related fields and/ or equip them to take up entrepreneurial assignments. This course will entitle the participants to earn credit points which can be added when he/she pursues a postgraduate diploma in energy management with CESPA.

As a pilot program, CESPA had organised a discussion meet titled **AGNITIO NAVITAS 2011** (stimulating energy education) on 26th February 2011 at Hotel Renaissance, Cochin, Kerala attended by 32 participants.

Agenda

9:30 -10:30 am	Registration;	10:30 am -1:00 pm	Plenary session
Welcome & Program Overview: Mr.G. Krishnakumar, Chief Coordinator , CESPA			
Presidential Address: Professor Dr. P. S. Chandramohan Nair, Founder President, SEEM and Chairman, Electrical and Electronics Engineering Department, Amrita Viswavidyapeetham			
Keynote Address: Mr. A. M. Narayanan, Head – Energy Efficiency Division, Energy Management Centre (SDA of BEE), Govt of Kerala			
Employment opportunities in Energy Sector, an HR Perspective: Mr. Srikumar, President, National HRD Network, Kerala Chapter			
Challenges, Opportunities & Way ahead: Dr Ramadas Harikumar, Vice President, SEEM			
1:00-2:00 pm	Lunch;	2:00 – 3:00 pm	Split group discussions
Group 1: Course contents & logistics			
Group 2: Renewable Energy and Energy Efficiency Centre – structure & operations			
3:00 - 3:40 pm	Group presentations & discussions; by each group 10 minutes each		
3:40 – 3:55 pm	Summing up and Finalising the Resolution		
3:55 – 4:00 pm; Vote of Thanks: Fr. Joel George Pulloil C.M.I, Convener- Agnitio Navitas-2011 (Rajagiri College of Engineering and Technology, Ernakulam)			



AGNITIO NAVITAS 2011 RESOLUTION

WE, THE DELEGATES to the one-day discussion meet on “Stimulating Energy Education”, comprising the Academicians (from Amrita School of Engineering, Amal Jyothi College of Engineering, Kanjirapally, Mangalam College of Engineering, Kottayam, Mar Athanasius College of Engineering, Kothamangalam, Mar Baselios College of Engineering and Technology, Trivandrum, Rajagiri School of Engineering & Technology, Cochin, SCMS School of Engineering and Technology, Cochin, Sree Narayana Gurukulam College of Engineering, Kadayiruppu, St. Joseph College Engineering and Technology, Palai, Toc H Institute of Science and Technology, Arakkunnam, Vidya Academy of Science and Technology, Thrissur, Viswa Jyothi College of Engineering, Vazhakulam), Technocrats, Bureaucrats, Engineers, Consultants, Industrialists, Certified Energy Managers & Auditors as well as Energy Management Centre and Schneider Electric, during the deliberations of the workshop have strongly resolved that,

THE ENGINEERING COLLEGES AND FACULTIES should take a pro-active role, involve and cooperate with the recent efforts of Government of India for fostering energy efficiency pursuant to the announcement of National Mission on Enhanced Energy Efficiency and also promoting renewable energy through the Jawaharlal Nehru National Solar Mission by addressing the skill gap and employment potential in the energy sector, and also take up initiatives to strengthen the Industry-Academia linkage.

WITH THIS OBJECTIVE, we unanimously resolve that:

- A short term “Certification Course on Energy Conservation and Management” for Engineering Students of pre final year or above in any branch of engineering be instituted by Centre for Energy Studies and Policy Analysis (CESPA) in association with the Society of Energy Engineers and Managers (SEEM) and in close coordination with the National and State level Energy Agencies. An Academic Committee may be constituted for this purpose.
- The network of expert engineering professionals available within SEEM who are certified energy auditors and managers qualified to act as external guides shall be leveraged for the students taking up energy related projects addressing industry needs resulting in better exposure to student community as well as their internal guides.
- A group of “Renewable Energy and Energy Efficiency Centres” (REEEC) may be set-up in the following colleges, subject to management approval,
 - Amrita School of Engineering, Kollam
 - Amal Jyothi College of Engineering, Kanjirapally
 - Mangalam College of Engineering, Kottayam
 - Mar Athanasius College of Engineering, Kothamangalam
 - Mar Baselios College of Engineering and Technology, Trivandrum
 - Rajagiri School of Engineering & Technology, Cochin
 - SCMS School of Engineering and Technology, Cochin
 - Sree Narayana Gurukulam College of Engineering, Kadayiruppu
 - St. Joseph’s College Engineering and Technology, Palai

- Toc H Institute of Science and Technology, Arakkunnam
- Vidya Academy of Science and Technology, Thrissur and
- Viswa Jyothi College of Engineering, Vazhakulam

as the first phase and then in other interested Engineering Colleges to act as Information Centres, Advisory Cell/ Consultancy Centres and Applied Research Centres for providing knowledge based services to different stakeholders, especially the Small & Medium Enterprises, as a joint initiative of CESPA with the support of Government, Non-Government and Corporate Agencies. SEEM/CESPA to organise a training program in the month of May/ June 2011 for the selected faculty members in association with reputed energy auditors. Each Centre can have specialisation in identified areas and the Centres can form a Consortium also for delivering the services.

- A propaganda exercise may be organised in interested engineering colleges to present the opportunities in this field and the benefit of the Certification Course along with the deliverables of the proposed Centre.
- Urge all economic sectors to integrate the concept of supporting “energy efficiency loyalty” promotional endeavours in their growth strategies to achieve green growth and for attaining social objectives.
- The participants gratefully accepted the offer of Rajagiri School of Engineering & Technology, Cochin to host a follow-up workshop sometime before June 2011, subject to the formal concurrence by their management.

Resolved on this Day, the 26th of February 2011 at Cochin

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Co-ordinators:

Mr Pramod Mani, Certified Energy Manager (Indian Rare Earths, Chavara)
Mr Suresh Babu B V, Certified Energy Auditor (Ottotractions, Ernakulam)
