



Master Plan : E-HotCat
Energy Campaign for the Hotel and Catering Industry in India

Report

Held at:
Hotel Vikram, Lajpat Nagar, New Delhi, India

8th December 2009

Proceedings prepared by
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Executive Summary

There is a lot of potential and scope of energy savings in Hotel and Catering Industry in India. The campaign was launched and the first conference and coordination forum was organised on 28-29 May 2009 at New Delhi to start the feasibility study. The objective of this campaign is to reduce energy consumption in Hotel and Catering industry by using energy efficient methods and renewable energy technologies, which will result in the mitigation of climate change by achieving a fundamental reduction in greenhouse gas emissions generated by the hotel and catering industry.

The primary aim of this study was to look into the modalities of implementation of such a project and develop an outline of a master plan for adapting and implementing the energy efficiency campaign in the hospitality industry in India, which is in line with the implementation of the Energy Conservation Act 2001. Various stakeholders that are directly and indirectly involved in the energy, hotel and catering sector, state ministries, agencies and departments, as well as private institutes, companies and associations were gathered in this one day event on 8th December 2009. The participants includes the Director General of Bureau of Energy Efficiency, representative from the Ministry of New and Renewable Energy, representatives from German Technical Corporation (GTZ), National and Regional Hotel and Restaurant Association representatives, State Designated Agencies (SDAs), State and Regional Tourism Development Corporation (TDCs), Energy Service Companies (ESCOs), NGOs as well as various other committed organizations that are engaged in the field of energy efficiency and the hospitality industry in India.

The targeted group of the study has also been identified along with the five different regions, which represent the different setup of major cities, beach areas, rural areas, mountainous areas, and religious areas. The roles of each stakeholder were also duly identified and agreed upon. In addition to this, the organizational setup of the feasibility study and the campaign was setup. The members of the national level Advisory Committee (AC) and a state level Technical Committee (TC) were finalized, along with the Secretariat of the campaign.

As recommended in the Conference & Coordination Forum workshop, five energy audits were conducted and the results of these walk-through energy audits, along with the results of the energy profile questionnaires were also presented in the workshop. The results of these energy audits and questionnaires show that there is a vast potential to save energy, in Hotel and Catering industry in India.

Several technical components that could be useful in the campaign were finalized, some of which are fact sheets, manuals, website with online calculator, consultant and service database, training help desk, and capacity building. Several financial setups options were also discussed, of which it could be funded by the European Commission, German and Indian government, through participation fees, CDM certificates, private investing companies, and energy service companies.

The agencies / organization who could lead the campaign were also discussed. Finally, the committee was of the opinion that since Adelphi Consult is involved since beginning of the campaign and having valuable experience in this kind of campaigns as well as such similar campaign in the German hospitality sector, they should lead the campaign for the time being and further during the course of time an Indian partner / group of partners could take over this responsibility.

Finally, it was recommended that Adelphi Consult would contact Ministry of Power, Ministry of Tourism, Ministry of New and Renewable Energy, Bureau of Energy Efficiency for their support in this campaign. Adelphi Consult would also try to enquire international and European agencies that could provide funds for this campaign.

1 Introduction and Scope:

There is lot of potential and scope of energy savings in Hotel and Catering Industry in India. The campaign was launched and a Conference and Coordination Forum was organised on 28-29 May 2009 at New Delhi to start a feasibility study. The primary aim of this study was to look into the modalities of implementation of such a project and develop an outline of a master plan for adapting and implementing the energy efficiency campaign in the hospitality industry in India thereby implementing the Energy Conservation Act 2001. One of the aims of Energy Campaign for the Hotel and Catering Industry in India (E-HotCat) is to reduce energy consumption in Hotel and Catering industry by using energy efficient methods and renewable energy technologies, which will result in the mitigation of climate change by achieving a fundamental reduction in greenhouse gas emissions generated by the hotel and catering industry. The first feasibility study intends to bring together stakeholders that are directly or indirectly involved in the energy, hotel and catering sector, which includes the state ministries, agencies and departments, as well as private institutes, companies and associations. This project will focus on the essential aspects for the development and deployment of a master plan for achieving GHG emission reductions in the hotel and catering industry. Similar campaign in Germany's hotel and catering industry has achieved great success environmentally and economically.

Based on the experience gained in the earlier campaign in Germany, the similar feasibility study proposes to put into practice this accomplishment in the similar hospitality industry in India, while considering the local context of India with all its implications. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety is financially supporting the feasibility study.

Objectives of the feasibility study:

- Analysis of the Indian hotel and catering industry with regard to private-sector players and state decision-makers
- Identifying potential partners in the private sector and also at the government development, involved in this sector
- Preparation of information material about potential partners
- Conducting bilateral talks of an exploratory nature with the major public and private stakeholders in the hotel and catering industry in India
- Analysis of the specific energy consumption and energy sources of the Indian hotel and catering industry
- Analysis of the measures for energy efficiency currently in place in the hotel and catering industry in collaboration with potential partners from the Energy Campaign
- Determining the possible distribution of roles and tasks in an energy campaign for hotels and caterings in India
- Framing a detailed concept for implementing the campaign in coordination with the project partners

Objectives of the campaign:

Upon which, the purpose of the actual project is as the following:

- Disseminating technical and administrative information on EEM and RET in the hospitality sector.
- Providing technical and financial advisory services for the participating hotels and catering enterprises.
- Conducting energy audits to identify energy efficiency potentials and applicability of RET.
- Setting up Energy Management Systems (EMS) in the participating hotels and catering enterprises.
- Implementation of EEM and setting up RET.
- Developing a benchmarking system and promoting existing certification schemes.
- Coordinating and organizing technical meetings, workshops, and conferences.
- Conducting capacity building and providing access to international expertise.
- Marketing and promoting of EEM and RET products.

- Developing the requirements and ground for a self supporting Energy Campaign for the hospitality sector
- Generate self sustaining and outreaching dissemination among members within the sector.

Scope:

The potential partners from various Government Departments / agencies, private institutes, companies and hotel and tourism associations, State Designated Agencies (SDAs) were identified in the Conference and Coordination Forum held on 28 – 29 May 2009. Tying up with partners, elaborate their potential roles and analyse possibilities of cooperating with local/ regional initiatives were agreed in this conference.

The scope and actions of the feasibility study includes the confirmation and distribution of a preliminary questionnaire to the hospitality enterprises. The targeted group of the study has also been identified along with the five different regions, and which represent the different setup of major cities, beach areas, rural areas, mountainous areas, and religious areas.

The questionnaires were distributed to the target group and duly filled-in questionnaire were analyzed and evaluated by Adelphi Consult. Based on the data received from the target group, Adelphi Consult in association with some of the energy audit firms conducted the walk through energy audit to showcase the energy saving potential in Hotel and Catering industry in India. Adelphi Consult conducted five walk through energy audit covering various regions and various categories of hotels.

Based on the results of these technical data as well as many bilateral and personal discussions with the relevant industry players throughout this period, a draft Master Plan was prepared by Adelphi Consult about the activities with regard to implementation of this campaign. The draft master plan was sent to all the participants for their comments and suggestion. Further, the draft master plan was also discussed during the deliberation of this meeting on 8th December 2009.

Deliverables:

To bring together all the stakeholders who are directly or indirectly involved in the hotel and catering sector striving towards a mutual beneficial energy campaign. The implementation phase of the campaign is proposed and following are the projected deliverables of the campaign.

Year one

Recruit 200 participating enterprises, conduct 20 energy audits and set up EMS.

Year two

Implement 50 EEM and RET

Year three

Recruit 400 participating enterprises and 40 energy audits and set up EMS.

Year four

Implement 100 EEM and RET

After Year four:

Kick off for a self supporting campaign

2 Conference Participants

The names and contact details of participants who attended the above master plan workshop are given below:

Name	Organisation	Email
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2.1 Essentials

2.1.1 Introduction to Master plan Workshop / Overview on results of Feasibility Study / Results of EA in Kerala

The introduction of Master Plan workshop and overview on results of Feasibility Study and results of energy audits carried out at Kerala Hotels as well as the results of the energy profile questionnaires were presented by Mr. Ronjon Chakrabarti and Mr. Jian Lee.

The objective of this workshop is to finalize the draft master plan developed by Adelphi Consult. The primary aim is to look into the important aspect of identifying the agencies for providing funds for the E-HotCat campaign.

The questionnaires which were distributed in earlier workshops to the target group and duly filled-in questionnaire received were analyzed and evaluated by Adelphi Consult. The results of the energy profile questionnaire were discussed. The major factors analyzed are:

- The energy cost per turnover of the hotels was evaluated.
- The average value of various sources of energy was evaluated.

During the last Conference and Coordination Forum held on 28 – 29 May 2009, the partners for the campaign were identified and advised Adelphi Consult to conduct walkthrough energy audit at five different regions, which represent various different setup - major cities, beach areas, rural areas, mountainous areas, and religious areas to show the potential of the energy savings in the Hotel industry in India. Accordingly, the following five regions were identified to show the potential of energy savings in the hotel and catering industry in India:

- Major Cities (Delhi, Mumbai, Kolkata)
- Beach areas (Goa, Kerala)
- Rural areas (Haryana, West Bengal)
- Hills and Mountain areas (Himalaya (Shimla, Darjeeling, Sikkim), others: Nilgiris)
- Religious and cultural places travelled to by domestic tourists (Bhubaneshwar, Puri) (others: Varanasi, Tirupati)

The goals and objectives of the walk through energy audit are given below:

- Identify baseline energy consumption
- Energy: Measuring energy saving in kWh
- Environment: Assessing the potential saving in amount of CO2 emission
- Identify & recommend energy saving possibilities
- Establish energy and environmental indicators to understand before & after performance

The walk through energy audit to focus on the following sections:

- Space conditioning
- Building envelope
- Lighting
- Hot water production
- Power consuming equipments (pumps, generators, etc...)

Summary of Questionnaire & Walkthrough Energy Audit implications:

- Saving potential based on indicators 6-50% reduction
- Justified the scope of the campaign – focus on mid range hospitality enterprises
- High range hotel already in practice of energy conservation measures
- 35% of the sample Hotels have conducted some sort of energy audit

Based on the recommendation of the Conference and Coordination Forum, Adelphi Consult conducted walk-through energy audits at Hotel Vikram, New Delhi; Hotel Shakti International, Puri; Majorda Beach Resort, Goa; Poovar Island Resort, Trivandrum, Kerala, India; KTDC Samudra Hotel Kovalam, Trivandrum, Kerala, India.

2.1.2 Results of walk-through energy audits in Delhi, Puri and Goa, Certification of hospitality sector

The results of walk through energy audit conducted by Mr. Pramod Kembhavi (Anama Enertech) and Mr. Ajit G Habbu (TÜV SÜD) were as follows:

(a) The results of walk-through Energy Audit conducted for Majorda Beach Resort, Goa, by Anama Enertech:

- Majorda Beach Resort, Goa is a five star deluxe standards. It has 120 rooms including 110 deluxe rooms and 10 cottages.
- The source of energy is Electricity (49%), HSD-DG (13%), LPG (10%), HSD-HWG (10%), HSD-Boiler (18%).
- The annual energy consumption is Electricity (3056925 kWh), HSD (241477 Ltrs), LPG (43586 kg).

Major recommendations:

- Improvement of performance of Steam boiler
- Improvement in the solar yield by operation at optimum temperatures
- Timer based control for exhaust fans
- “On-Off” control for cooling tower fan based on basin temperature and AC load for cold rooms
- Replacement of all candle type 25 W lamps by LED lamps of 2 W
- Replacement of incandescent lamps by CFLs

Other recommendations:

- Solar thermal parabolic dish type concentrator for low pressure steam generation
- Optimizing set temperature of chilled water based on season.
- Optimization of set temperature in guest rooms, lobby and conference halls. Raising the temperature by 2 deg C will reduce the total AC load substantially.
- Maintenance of chilled water coils for chillers, FCUs and AHUs
- Sealing of windows, doors etc. to avoid ingress of hot air
- VFD for chilled water pumps based on AC load in hotel.
- Power factor to be maintained at unity by addition of 70 kVAr in the automatic power factor control circuit.
- Replacement of electric ironing machines by steam irons.
- Electronic chokes in place of conventional chokes for fluorescent lamps
- LPG pilots to be switched off if not being used for long durations. Ensuring that cylinder is completely utilized before replacement. Hot water generated from excess/solar heat can be utilized to warm the base of the cylinders to extract maximum gas.
- Energy efficient pumps, ceiling fans and motors are to be used for future applications.
- Proper utilization of condensate returning from laundry. Installation of inverted bucket steam trap for calendaring machine.

(b) The results of walk-through Energy Audit conducted for Hotel Vikram, New Delhi by Anama Enertech

- Hotel Vikram is a four star standards. There are 68 rooms including 30 Deluxe, 30 Executive, 6 luxury rooms and 2 suites. There is one restaurant, swimming pool and 4 conference halls. All guest rooms are provided with air conditioning. Conference halls and restaurants are also provided with air conditioning.
- The source of energy is Electricity (77%), HSD (13%), LPG (10%)
- The annual energy cost is Electricity (Rs.68 lakhs), HSD (Rs.11.80 lakhs), LPG (Rs.9.3 lakhs).

Major recommendations:

- Tuning of hot water generators & Steam boilers
- Use of voltage stabilizer exclusively for lighting loads and reduction of set voltage during day and late night hours
- Installation of TFA for utilizing fresh air and reducing air conditioning load
- "On-Off" control for cooling tower fan based on basin temperature and AC load
- VFD for chilled water pumps based on AC load
- Replacement of inefficient chiller by energy efficient screw chiller
- Use of electronic chokes in place of conventional chokes for tubelights
- Use of steam in place of electric heaters for all washing machines
- Phase-wise replacement of old rewind motors by energy efficient motors
- Installation of double glazing for windows
- Improvement of operations of LPG in kitchen and gas bank

Other Recommendations:

- Solar thermal parabolic dish type concentrator for low pressure steam generation
- Kitchen waste to biogas in conjunction with nearby hotels – Few hotels in the vicinity to collect their wet kitchen waste together. A biogas plant to be set up at one of the users having sufficient space. Biogas to be utilized.
- Optimizing set temperature of chilled water based on season.
- Maintenance of chilled water coils for chillers, FCUs and AHUs
- Motorised valves for chilled water to close and fan speed to minimum when rooms in unoccupied rooms.
- Allotment of rooms so as to switch "off" top floors electrical loads when occupancy is low
- Sealing of windows, doors etc. to avoid ingress of hot air
- Consider chiller with de-superheater to produce hot water along with chilling.
- VFD for chilled water pumps based on AC load. VFD for cooling water pump.
- LED lamps for painting illuminators etc.
- Reduction of contract demand so as to reduce demand charges

(c) The results of walk-through Energy Audit conducted for Hotel Shakti International, Puri, by TÜV SÜD:

- The source of energy is Electricity (67%), HSD (7%), LPG (25%).
- The annual energy consumption is Electricity (213813 kWh), Diesel (3269 Ltrs), LPG (11514 kg).

Recommendations:

- Replacing 8W CFL in place of room entrance CFL of 18W.

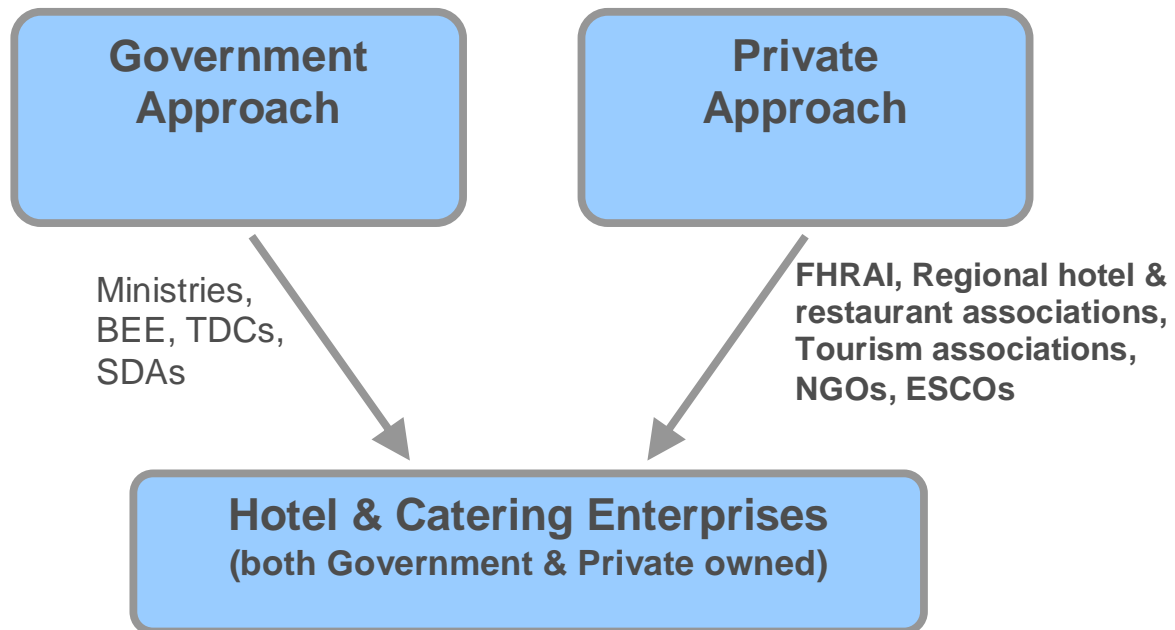
- Reducing 70 nos. of CFLs in Corridors.
- Replacing 250W HPMV by 150W HPSV.
- Replace individual geysers system with solar water heater system.
- Replace existing old AC's with star rating AC's.

It was informed that some of the recommendations made by the energy audit team were also implemented by some of the hotels. Based on the walkthrough energy audit, it was also found that there is lot of potential for energy savings in the hotel and catering industry in India. The efforts of Adelphi Consult were appreciated.

2.2 Finalization & Realization

2.2.1 Finalization of Organizational & Administrative Setup

The organisation and administrative setup for the campaign is given below:



This Masterplan workshop has agreed on this Public-Private-Partnership (PPP) approach.

2.2.2 Overview and Roles of all involved stakeholders

The roles of involved stakeholders were discussed. The details of the stakeholders with their roles and responsibilities are given below:

Secretary (Secretariat):

- Support all the activities of the AC and TCs
- Conduct all the organizational and administrative work of the campaign

- Develop and implement the technical services of the campaign : i.e. Conduct Energy Audits and provide consultancy services to the members of the campaign
- Support the individual Hotels in the implementation of EEM and RET projects
- Acquire funds for the implementation of pilot projects
- Support the advisory and technical committees with additional services which they are contracted for

Ministry of Power and BEE:

- Endorse the campaign as official patron
- Be part of the advisory committee
- Backing the governmental approach to the departments of Energy and SDAs,
- Possible financial support for the implementation of pilot projects in the field of Energy Efficiency.
- Advise and prepare decisions on technological approaches regarding Energy Efficiency in the campaign

Ministry of Tourism:

- Endorse the campaign as official patron
- Be part of the advisory committee,
- Possible financial support for the Advisory Committee secretary and the technical committee secretaries.
- Backing the governmental approach to the Departments of Tourism, ITDC and TDCs,
- Advise and prepare decisions on measures concerning hospitality issues

Ministry of New and Renewable Energy (MNRE):

- Endorse the campaign as official patron
- Be part of the advisory committee
- Possible financial support for the implementation of pilot projects in the field of new and renewable energies.
- Advise and prepare decisions on technological approaches regarding New and Renewable Energies.
- Evaluating policy and guidelines to mobilize and create policy for the energy campaign

FHRAI and other national associations in the hotel and catering industry:

- Be part of the Advisory Committee
- Approach and coordinate with the regional and local Hotel associations regarding the services of the campaign
- Communicate with national hotel chains and the government bodies on the national level and communicate the interest of the members of the association

ITDC:

- Be part of the Advisory committee
- Approach the government owned ITDC hotels with the services of the campaign.
- Advise and prepare decisions for the measures to be conducted for ITDC hotels

State Designated Agencies for EE, ESCOs, Energy Development Agencies, Departments of Energy:

- Head the Technical Committee jointly with the regional Hotel and Restaurant Association

- Overall coordination of the implementation of the technological measures of the campaign
- Provide technical support to the regional and local Hotel associations and departments of Tourism as well as the Tourism Development Corporations in taking their decisions.

Regional and local Hotel associations:

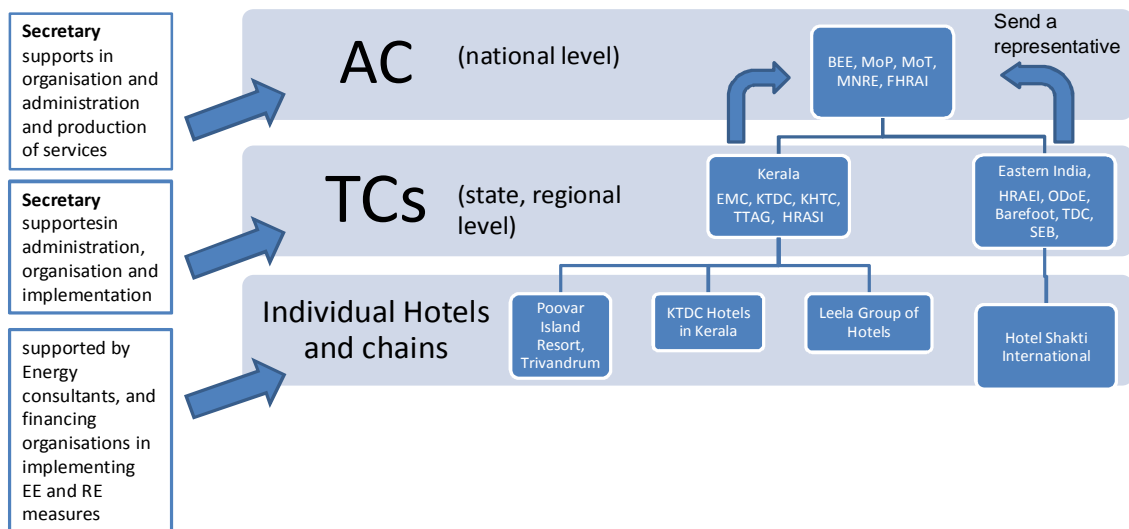
- Approach and coordinate with the Hotels and Hotel chains
- Collect the data and communicate them with the SDAs on the state level
- Be part of / head the technical committee
- Decide on the scope and of measures for their members
- Select their member hotels and restaurants for the conduct of Energy audits as well as the setup of pilot projects

Departments of Tourism and Tourism Development Corporations:

- Be part of the technical committees
- Approach the government owned hotels with the services of the campaign
- Decide on the scope and of measures in the government owned hotels and restaurants
- Select the hotels and restaurants for the conduct of Energy audits as well as the setup of pilot projects

2.2.3 Roles of Advisory & Technical Committees

The organizational setup after defining the roles and responsibilities of each of the partner is shown in figure below.



2.3 Finalization of propose members of Advisory and technical Committees

The members of the National Level Advisory Committee and possible organizational and state level Advisory Committee was finalized and agreed by all the members and is given below.

2.3.1 National Level Advisory Committee (AC):

(a) Members:

BEE (Sanjay Seth)
MoP (Rita Acharyan) TBC
MoT (Vikath Rustagi)
MNRE (Sant Ram)
FHRAI (Harish Sud)
HRAEI (Alok Chowdhury)
GTZ IGEN (Mr. Jens Burgtorf / Dr. Rudolf Rauch)

(b) TC representatives:

Dharesan Unnithan (TC Kerala)
Pyari Mohan Mishra (TC Eastern India)
B.S.Yadav (TC North India)
Dr. Varde (TC Goa)

(c) Attached office (secretariat):

Ashok Kumar EMT International, (BEE coordination)
Pawan Kumar (NPC national level)
Pradeep Kumar (TERI national level)
Pramod Kembhavi (Anama Eneritech national level)
Sanjay Dube (ICF International national level)
Jian Lee and Ronjon Chakrabarti (Adelphi Consult)

2.3.2 State Level Advisory Committee (TC):

(a) Kerala TC:

Members:

EMC (head) [will lead the TC]
KTDC
Kerala Tourism Department,
KHRA
SIHRA
KTM
Kerala Tourism and tour operator
CKTI Confederation of Kerala Tourist Industry

(b) Eastern TC:

Members:

SDA (Department of Energy, Gov. of Orissa – Energy Cell) (head) [will lead the TC]
HRAEI
Barefoot
HRAO
HAP
OTDC
WBTD
WBSEB
WBREDA

(c) Northern TC:

Members:

HPSEB (head) [will lead the TC], TBC
HAREDA
HTDC
DPRE
Department of Tourism
HPTDC

(d) Goa TC:

Members:

GEDA (head) [will lead the TC]
TTAG
GTDC
Department of Tourism, Goa

2.3.3 Secretary (Secretariat) to AC and TC (campaign staff)

The secretary (Secretariat) is attached to the AC and TC committees and responsible for the organization and preparation of the meetings and implementation of the activities decided on. Their main members are companies, NGOs and Institutes which conduct activities related to energy consultancy and hospitality services.

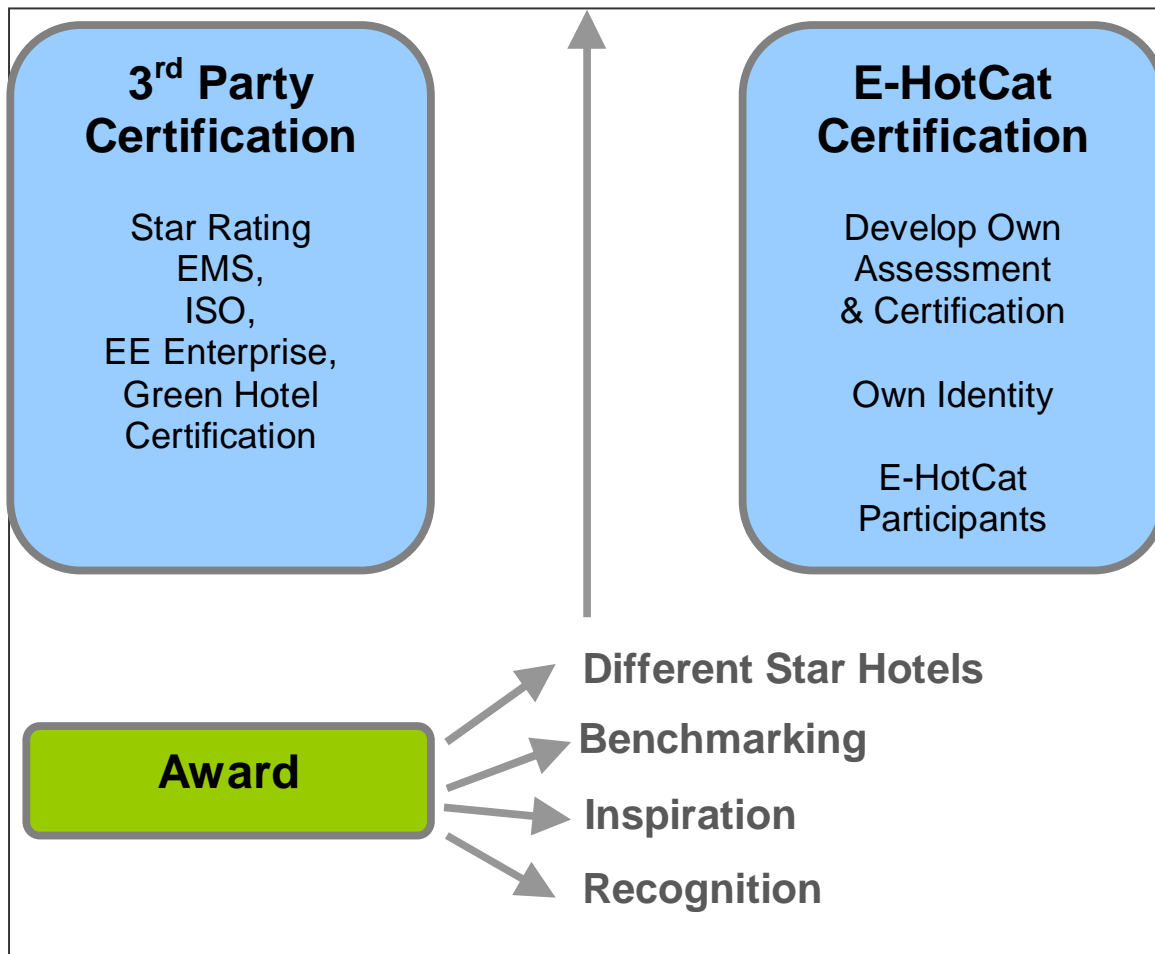
Members:

Adelphi Consult
EMT International
TERI
NPC
Anama Enertech
SESVO
Barefoot
ICF
Refrecon Magic
TUV SUD South Asia
BEE approved ESCOs

In the Masterplan workshop, it is decided that the Secretariat shall look into the option of being registered under the “Society Registration Act” or teaming up with an already legally registered organization such as GTZ. Either option in which could then lead to collaboration with the Ministry.

2.3.4 Certification of hospitality sector

It is proposed E-HotCat may develop own assessment and certification standards for the hotel and catering industry in India. This issue may be taken up by the E-HotCat Campaign during its implementation. The proposed certification proposed by E-HotCat is given below:



2.4 Finalization of Technical Setup

2.4.1 Components and Elements of the Technical Aspects

The components and elements of the technical aspects of the campaign are given below:

(a) Fact Sheets and Checklists

- Detailed information according to sections
- Update participants with recent development & EE technologies

(b) Manuals

- Handbook for practical guide towards energy efficiency
- EE practices that involved no cost
- Guidelines for management and staffs to save energy and cost

(c) Website

- Best Practice Database
- Consultant Database & Vendor Guide
- Automatic Energy Audits
- New Upcoming Technologies
- Online Energy Calculator
- Benchmarking System
- EE Product Information

(d) Hotline, Consultancy Services, Financial Aid

- Dedicated hotline for support and enquiry
- On-request consultancy services
- Instant advice and referring of participants to relevant service providers
- Provide participants the platform to explore financial support – to apply
- Investing providers to seek potential investing opportunities

(e) Workshops, conferences, trainings

- Workshop for capacity building
- Conference to bring together stakeholders on recent developments, knowledge sharing, corporations, dialogue sessions
- Trainings for management and staffs

2.5 Finalization of Financial Setup

2.5.1 Budget options for the Campaign:

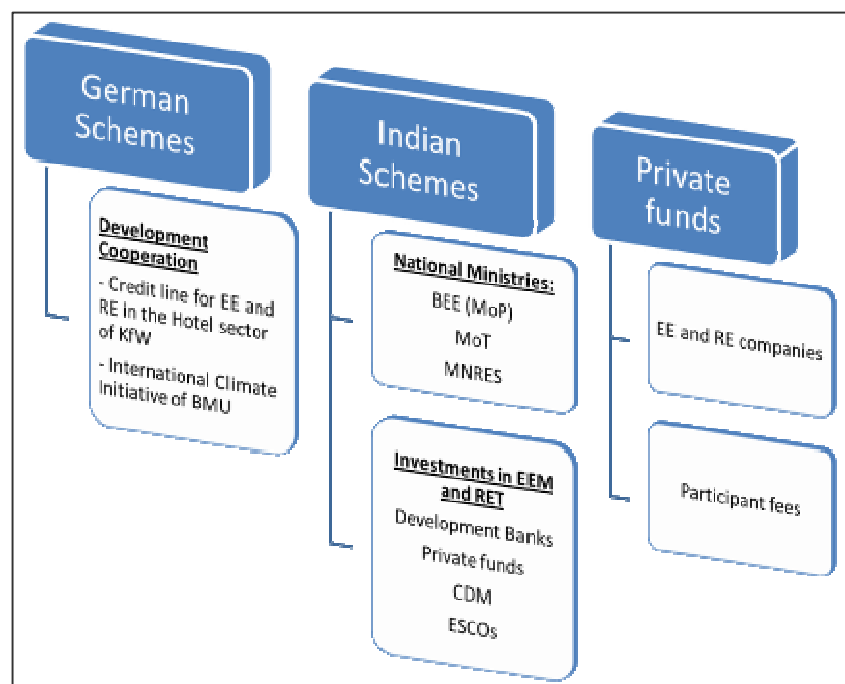
- Minimum requirement for the campaign for the first year is Rs.70 lakhs.
- Minimum requirement for full fledged self sustaining is Rs.4.5 crores.
- Minimum requirement for full fledged with investments for pilot projects is Rs.8.2 crores.

The detailed break-up of budget for the above three activities are given below:

Services	low budget (lakh INR)	full fledged (lakh INR)	full fledged + investments (lakh INR)
Corporate awareness	10	30	30
Fact Sheets and checklist	30	60	60
Manuals		30	30
Website	10	50	50
Hotline		20	20
Consultancy Services		20	20
Wokshops & Conferences	10	50	50
Trainings		50	50
Financial Aid		20	20
Certificates, logo, star rating		20	20
award schemes, classifications		20	20
establishing benchmark values		50	50
consumer awareness	10	30	30
pilot project investements			370
TOTAL (lakh INR)	70	450	820

2.5.2 Funds for the Campaign

The funds for the Indian E-HotCat Campaign may be initially arranged from Bureau of Energy Efficiency or Ministry of Power, Ministry of Tourism, Ministry of New and Renewable Energy (MNRE). The funds for full fledged self sustaining and full fledged with investments may be sought from the Development Banks, CDMs and ESCOs. The private funds may be raised from EE and RE companies as well through participant fees. It was also proposed that if any additional funds required at the later stage may be raised through registration fee for registering on the website. The figure below illustrates the arrangements of funds for the campaign:



3 Deliberations:

Adelphi Consult presented that to continue this campaign further, there is a need of funds which may be provided by Ministry of Tourism / Ministry of Power / Bureau of Energy Efficiency / Ministry of New and Renewable Energy (MNRE). It was informed that MNRE in an effort to mitigate the energy problems of cities and to provide alternative energy solutions for industrial and commercial establishments; MNRE supporting the following renewable energy technologies and energy efficient systems:

- Solar energy programmes & Technologies
- Energy recovery from urban wastes
- Energy recovery from industrial wastes
- Biomass energy and co-generation (non-bagasse) in industry

MNRE has also schemes for Consultancy/Consultants organization involved in waste to energy projects and Technology Providers waste to energy. Though none of their existing programmes and schemes of MNRE support this kind of Campaign but since this particular campaign is indirectly promoting solar energy and generating biogas from the food waste of the hospitality industry, this issue can be taken up to the Secretary of MNRE. Adelphi Consult may submit a proposal about their plans of the campaign to MNRE and if possible, to have a presentation before the Secretary, MNRE.

It was also discussed that Indian Renewable Energy Development Agency (IREDA) under the MNRE is providing financial support to specific projects and schemes for generating electricity and / or energy through new and renewable sources and conserving energy through energy efficiency.

MNRE will be organizing an international conference in which technology provider from all across the world would be participating and show casing the case studies particularly with respect to the renewable energy efficiency. Interested persons may contact MNRE for getting invitation for this international conference.

The partners of the campaign discussed about the identification of the agency who can lead the campaign. It was brought to the notice that Government of India may not be releasing any funds to the international bodies including Adelphi Consult, as the Government of India guidelines does not support. The members opined that the following two possible ways where funds can be sought from Government of India:

- Form a new company and register under Indian Companies Registration Act, 1956.
- Form a Society under register under Registration of Societies Act 1860

It was felt that at least 6 months to one year time required for undertaking any of the above activities, which can delay the campaign. Keeping in view of the importance of the campaign this arrangement is not so feasible. It was discussed that if Government of India can release funds to ESCO then any of Indian ESCO can be associated with this campaign and the selected ESCO can lead this campaign. The members felt that this kind of arrangement may not be suitable.

Also, contacting various ministries for this campaign will lead to wastage of time. Instead, it is better to identify the most appropriate ministry who can support this campaign. It was concluded that all the ministries are very busy with their own activities and devoting time for this campaign are very remote. Hence, it is better to find alternative solutions so that the campaign can move further.

Adelphi informed that they can arrange funds from Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and the European Commission but it requires consent and participation from the Government of India, especially regarding their interest in such a campaign. If any of the Ministries / Departments such as Ministry of Tourism, Ministry of Power, Ministry of New and Renewable Energy, Bureau of Energy Efficiency can issue approval of this campaign by way of providing some funds as a token of acceptance it would be very easy to obtain funds from the European side.

The plan of activities for the campaign to move further was presented along with funds required for each activity. It was informed that a minimum budget required for the first year is Rs.70 lakhs just to start this campaign. The purpose of keeping the budget of Rs.70 lakhs for the first year is that BMU has various categories of funding under it with number of committees / stages it has to go through according to the extent of support. Since Rs.70 lakhs falls under the minimum support category it is better to apply in this category.

Head-wise budget was presented. It is proposed that 370 detailed energy audits would be conducted by the partners (energy auditors) of the Campaign to the selected hotels covering all star categories. A budget of Rs.370 lakhs was proposed (Rs.1 lakh for each energy audit) for full fledged with investments campaign. Similarly, for development of highly interactive website a budget of Rs. 10 lakhs for low budget campaign, Rs.50 lakhs for full fledged campaign, Rs.50 lakhs for full fledged + investments campaign.

It was informed that the Public-Private-Partnership (PPP) mode is working very well in India and fruitful results were generated in the various other projects in India and hence it is expected that this campaign could also be a successful. Several technical components that could be useful in the campaign were also discussed, some of which are fact sheets, manuals, website with online calculator, consultant and service database, training, and capacity building. The budget required for preparation

of fact sheets, manuals and case studies which could serve as tool for bringing awareness about the energy efficiency in the hotel and catering industry in India was also discussed.

In the realization of E-HotCat, the national level Advisory Committee shall take charge and oversee the organizational, administrative and advisory task of the campaign. It is well represented by the Bureau of Energy Efficiency, hotel and restaurant associations, NGOs, and also includes each of the representatives of the four regions of the Technical Committee. The Technical Committee which consists of the four regions of Eastern, Northern, Goa and Kerala shall take charge of the technical components of the campaign which includes energy audits, technical reports, technical implementations and consultation tasks. In all the four regions have a representative in the Advisory Committee, as well as being the lead and taking charge of the activities designated within their region. In addition to this, the organizational setup for the master plan was also discussed. Mr. Ronjon presented the proposed members of the national level Advisory Committee (AC) and a state level Technical Committee (TC). The suggestions of the members were also incorporated in the constitution of both the committees. Technical Committee of 4 different selected regions – Northern region, Eastern region, Kerala region and Goa region.

During the campaign some vendors who are providing technologies / solutions with regard to energy efficiency and renewable energy particularly for Hotel and Catering industry will be contacted. Some revenue could be generated from these vendors by way of registering them for the campaign.

4 Photographs







5 Summary of the day, and looking forward to the realization of campaign

The objective of this workshop is to finalize the draft master plan developed by Adelphi Consult. The primary aim is to look into the important aspect of identifying the agencies for providing funds for this E-HotCat campaign.

The questionnaires were distributed to the target group and duly filled-in questionnaire was analyzed and evaluated by Adelphi Consult. The results of walk through energy audits conducted by Mr. Pramod Kembhavi (Anama Eneritech) and Mr. Ajit G Habbu (TÜV SÜD) were also presented.

The organisation and administrative setup for the campaign was also finalized. The roles of all involved stakeholders were finalized. The roles of Advisory & Technical Committees were well defined and agreed upon by the partners of the campaign. The members of Advisory and technical Committees was finalized.

The components and elements of the technical aspects of the campaign were also finalized. The budget required for the campaign was discussed.

6 Conclusion

The targeted group of the study has been identified along with the five different regions. The roles of each stakeholder were also duly identified and agreed upon. In addition to this, the organizational setup of the feasibility study and the campaign was setup. A national level Advisory Committee (AC) and a state level Technical Committee (TC) were finalized, along with the Secretariat.

The committee finally advised Adelphi Consult to lead this campaign and try to arrange funds for the campaign wherever possible. The necessary support from the Government ministries / departments would be provided and the required help from the partners will always be available to the Adelphi Consult. Mr. Alok Chowdhury of HRAEI will write a letter to Secretary, Ministry of Tourism detailing about this campaign and request for support of Ministry of Tourism to this campaign.

Adelphi Consult will organize a meeting with Director General and Mr. Sanjay Seth of BEE and request for their support of this campaign. Adelphi Consult will also contact MNRE and workout the modalities of their support to this campaign.

All the partners assured their association in this campaign.

7 Glossary

AC	National level Advisory Committee
BEE	Bureau of Energy Efficiency
CDM	Clean Development Mechanism
EC Act	Energy Conservation Act
E-HotCat	Energy Campaign for the Hotel and Catering Industry
ESCO	Energy Service Company
FHRAI	Federation of Hotel & Restaurant Associations of India
GHG	Green House Gas
GTZ	German Technical Cooperation
HAREDA	Haryana Energy Development Authority
HPSEB	Himachal Pradesh State Electricity Board
HRAEI	Hotel & Restaurant Associations of Eastern India
HRANI	Hotel & Restaurant Association of Northern India
HRASI	Hotel & Restaurant Association of Southern India
HRAWI	Hotel & Restaurant Association of Western India
ITDC	India Tourism Development Corporation
KHRA	Kerala Hotel and Restaurant Association
KTDC	Kerala Tourism Development Corporation
MoT	Ministry of Tourism
NGO	Non-Governmental Organisation
NPC	National Productivity Council
SDA	State Designated Agency
SESVO	Society for Enhancing Sustainability and Value of Organisations
SIHRA	Southern India Hotels & Restaurants Association
TC	State level Technical Committee
TDC	Tourism Development Corporation
TERI	The Energy and Resources Institute (TERI),
TTAG	Travel and Tourism Association of Goa (TTAG)

8 Agenda

December 8th, 2009, Conference Hall Sammelan, Hotel Vikram, Ring Road Lajpat Nagar, New Delhi, India

09.00	Arrival and Registration of Participants
09.15 – 10.00	Inaugural Session, Welcoming and Opening Remarks, Key Note Addresses Pradeep Kumar (TERI) Pawan Kumar (NPC) Asha Juneja (HRANI) Alok Chowdhury (HRAEI) Sanjay Seth (BEE)
10.00-10.15	<i>Tea/Coffee Break</i>
10.15-10.45	Introduction to Masterplan Workshop / Overview on results of Feasibility Study / Results of EA in Kerala Ronjon Chakrabarti (Adelphi Consult) Jian Lee (Adelphi Consult)
10.45-11.15	Results of EA in Delhi, Puri and Goa, Certification of hospitality sector <ul style="list-style-type: none"> • Pramod Kembhavi (Anama Eneritech) • Ajit G Habbu (TÜV SÜD)
11.15-11.30	Input Campaign Finalization & Realization Session 1
	Finalization of Organizational & Administrative Setup <ul style="list-style-type: none"> • Overview list of Stakeholders • Roles of all involved Stakeholders • Roles of Advisory & Technical Committees
11.30-12.00	Discussion on Session 1
12.00-13:00	Finalization of Members of Advisory and Technical Committee
13.00-14.00	<i>Lunch Break</i>
14.00-14.30	Input Campaign Finalization & Realization Session 2
	Finalization of Technical Setup <ul style="list-style-type: none"> • Components and Elements of the Technical Aspects
14.30-15.15	Discussion on Session 2
15.15-15.30	Campaign Finalization & Realization Session 3
	Finalization of Financial Setup <ul style="list-style-type: none"> • Budget options for the Campaign • Funds for the Campaign
15.40-16.00	Discussion on Session 3
16.00-16.10	<i>Tea/Coffee Break</i>
16.10-16.40	Future Course of Actions
	Discussion on Future Course of Actions, Setup of Action plan
16.40-17.00	Conclusion
	Summary of the day, and looking forward to the realization of campaign Pradeep Kumar (TERI) Pawan Kumar (NPC) Alok Chowdhury (HRAEI) Sanjay Seth (BEE)