

BACHAT LAMP YOJANA

CDM based CFL scheme



All the empanelled CFL Manufacturers and Traders are kindly requested to intimate BEE about updates if any in the relevant fields within the uploaded Manufacturers and Traders list at spandita@beenet.in as soon as possible.

Preface

India is faced with the challenge of sustaining its rapid economic growth while dealing with the global threat of Climate change .Climate change might alter the distribution and quality of India's natural resources and adversely affect the livelihood of its people. With an economy closely knitted to its natural resources base and Climate sensitive sectors such as agriculture, water and forestry India may face threat in future due to climate change.

In its search for ecological sustainable alternatives and recognizing climate change as a global issue, India stands committed to reduce its per capita Green house gas emission and limit it below that of the developed Countries even as it pursues its development objectives.

Energy Conservation Act 2001 provides legal mandate to implement energy efficiency measures through Institutional mechanism of Bureau of Energy Efficiency in the Central Government and designated agencies in the states.

Bachat Lamp Yojana a CDM based CFL scheme is an innovative initiative put in place by the Central Government to enhance lighting efficiency in the Indian household sector by making Compact Fluorescent Lamps available at prices comparable to that of Incandescent Lamps. The scheme seeks to leverage the high cost of the CFLs through the CERs generated out of the project.

For any clarification / query please contact:

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Concept Note on
"Bachat Lamp Yojana"

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Overview

Lighting accounts for almost **20%** of the total electricity demand in the country, and contributes almost fully to the peak load as well. The vast amount of lighting in the country is provided by incandescent bulbs, which are extremely energy inefficient. Only about 5% of the electricity is converted into light, the rest is lost as heat. In recent years, energy efficient lamps have been introduced into the Indian market, with the Compact Fluorescent Lamp (CFL) providing an energy-efficient alternative to the incandescent lamp. A CFL uses only one-fifth as much electricity as an incandescent lamp to provide the same level of illumination. CFLs have almost completely penetrated the commercial market, and the sales of CFLs in India have grown from about 20 million in 2003 to more than 100 million in 2007.

However, penetration into households has been very limited, largely because of the high price of the CFLs. The price of CFLs is still in the Rs.80-100 price range, whereas the incandescent bulbs are in the Rs.10-15 price range.

Initiatives to help decrease the price of CFLs to be comparable with that of incandescent bulbs are therefore necessary in order to enhance the penetration of CFLs in households and are a policy goal that has been spelt out in the agreed action points in the meeting of all State Chief Ministers chaired by the Prime Minister of India. It is estimated that about 400 million light points in India today are lighted by incandescent bulbs; their replacement by CFLs would lead to a reduction of over 10,000 MW in electricity demand. This would not only reduce emissions by way of efficient end use of electricity, but would also result in the reduction of peak load in the country which currently faces a shortage of upto 15%. The price barrier, as indicated above, will be overcome by using the CDM revenue stream to enable faster penetration.

"**Bachat Lamp Yojana**" seeks to utilize the Clean Development Mechanism (CDM) of the Kyoto Protocol to bring-down the price of CFLs. This public-private partnership between the Government of India, Private sector CFL Manufacturers /Traders (Project Developers) and State level Electricity Distribution Companies would provide the framework to distribute high quality CFLs at about Rs.15 per piece to the households of the country. Under the scheme only 60 Watt and 100 Watt incandescent Lamps have to be replaced with 11to15 Watt and 20 -25 Watt CFLs respectively.

The Government would develop a programmatic approach (PoA) within which individual CFL supplier would develop CDM projects. The Bureau of Energy Efficiency (BEE), being the statutory body set up under the Energy Conservation Act, 2001 by the Government of India, will coordinate the Small-Scale Programme of Activities (SSC-PoA) and will facilitate implementation of the programme in various States through their respective Electricity Distribution Companies (DISCOMs) with the assistance of the CFL suppliers. **The development of the SSC-PoA is a voluntary action on the part of BEE and it would not seek any commercial revenues from the SSC-PoA.** On the other hand, it will on behalf of the Government of India take the responsibility of monitoring of all project areas after the DISCOMs and the CFL suppliers have entered into a tripartite agreement (TPA) with BEE.

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1.1. The main roles of the three parties are listed below :

CFL Manufacturers and Traders

- Providing CFLs with lumen output +/- 10% of the baseline ie (lumen output of **100 Watt & 60 Watt**) Incandescent Lamps at price comparable to those of Incandescent Lamps(**i.e. Rs 15**), in exchange for functioning Incandescent Lamps that are currently being used in the households. A maximum of 4 CFLs shall be replaced per household. These CFLs shall be compliant with the existing National Regulations in force.
- Free replacement of fused distributed CFLs, within 2 years for 6000 hour CFL and within 3 years for 10000 hour lamps, during the life of the CDM Project.
- Collection of fused CFLs through buy-back schemes, and arrangements for their safe disposal.
- Pre-project survey to estimate the annual electricity saving potential and baseline penetration of CFL in a selected SSC-CPA area.
- Distribution of CFLs in association with DISCOM within its customer area.
- Securing financing of initial investment for the cost differential (no subsidy form the Govt. of India towards reducing cost of the CFL lamps).
- Preparing CDM Small-Scale Programme Activity Design Documents (SSC-CPA-DD) for their CDM Small-Scale Programme Activity (SSC-CPA) and submitting it to BEE.
- Getting the SSC-CPA–PDD validated by a Designated Operational Entity of CDM Executive Board.
- Getting the SSC-CPA –PDD registered with the UNFCCC (including payment of any fees to UNFCCC).

DISCOM in SSC-CPA area

Extend facilities to the SSC-CPA project investor to

- Define geographic boundary of customer area of a DISCOM.
- Define a residential household based on State level definition and tariff category.
- Safe storage of replaced ILBs for independent inspection and safe disposal.
- Prepare database of all grid connected residential households to include name of users/ address/ average annual electricity consumption for each SSC-CPA project area
- Selection of **Baseline Survey Group (BSG)**, **Project sample monitoring group (PSMG)**, **Project spot-check group (PSCG)**.

BEE:

- Extensive awareness and information campaign in association with DISCOMs.
- Development of Small-Scale Programme of Activities Design Document (SSC-PoA-DD).
- Registration of the SSC-PoA with UNFCCC CDM Executive Board.
- Managing the monitoring of lighting appliance utilization hours within the PSMG households using the approved small scale methodology of the UNFCCC (EB) and analysis of the monitored data.
- Supporting the CFL suppliers/ DISCOMs to prepare SSC-CPA-DDs.
- Inclusion of SSC-CPAs to the SSC-PoA upon satisfaction of the eligibility criteria stipulated in the SSC-PoA-DD.
- Official communication with the CDM–EB, DOE and Indian DNA.

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- Allocation of CERs to the SSC-CPA project participant / DISCOMs according to their share in emissions reductions in a specified period.
- Decide any transaction cost on SSC-CPA for functioning as managing entity for SSC-CPA

Tripartite Agreement under the Bachat Lamp Yojana

Between

Bureau of Energy Efficiency

hereinafter referred to as "BEE"

and

DISCOM

– herein after referred to as "xxx" –

and

Project Developer

– herein after referred to as "Manufacturer /Trader" –

1. In course of the discussions between the parties to conclude the Agreement, the parties intend to consider the following measures:
- 1.2. BEE is statutory body formed under the Energy Conservation Act, 2001 for promoting energy conservation and efficiency in the country.
- 1.3. XXX is engaged in the generation & distribution of electricity power units, and Manufacturer/Trader is engaged in the business of manufacturing and selling energy saving lighting appliances.
- 1.4. Now therefore, the Parties are contemplating the development of a CDM Programme Activity (CPA), using an approved methodology or small scale methodology pursuant to the Clean Development Mechanism of the Kyoto Protocol ("Methodology") applied to residential lighting for the reduction of greenhouse gas emissions, resulting in sustainable energy savings in the State of XXX (hereinafter called the "Project"). BEE will be the monitoring agency for the project.
- 1.5. The three parties will be responsible for the activities as mentioned in clause 1.5. Manufacturer/Trader will be responsible Project owner and will be in charge of the measures as of 1.5. In return, to cover all costs and risks, Manufacturer/Trader will benefit from Certified Emission Reduction units (whose meaning is to be read in context of the Clean Development Mechanism of the Kyoto Protocol, hereinafter called "CERs") generated from the Project. BEE will monitor the reduction in energy consumption that will lead to the above. The role of BEE and XXX is as in clause 1.5.
- 1.6. The main roles of the three parties are listed below :

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- Inclusion of SSC-CPAs to the SSC-PoA upon satisfaction of the eligibility criteria stipulated in the SSC-PoA-DD.
- Official communication with the CDM–EB, DOE and Indian DNA.
- Allocation of CERs to the SSC-CPA project participant / DISCOMs according to their share in emissions reductions in a specified period.
- Decide any transaction cost on SSC-CPA for functioning as managing entity for SSC-CPA

1.6 XXX will benefit from sustainable energy savings in the state of XXX, in return XXX and BEE will support Manufacturer/Trader to execute the Project.

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1.7 XXX accepts that Manufacturer/Trader may sign a separate agreement with a third party to share costs and risks according to 1.5. above as well as CER returns generated in the Project.

2 Miscellaneous

2.1. Each Party shall treat the Negotiations and the content of this MoU as confidential unless the other Party gives its prior written consent to its (or any part thereof) disclosure.

Each Party shall use any information which it receives from the other Party during the course of discussions or Negotiations, only for the purposes for which it has been provided, and shall prevent third parties from gaining access to it and treat it in the same way as its own business secrets. This confidentiality obligation shall not apply to information which is generally known, which can be shown to have been independently developed by the recipient, or which has been acquired from a third party without nondisclosure obligation. This obligation shall likewise not apply if a Party is required by statutory regulations to reveal any of the information it has obtained. This obligation shall survive for a period of five years after this MoU lost its force.

2.2. Each party has the right to discontinue discussions and negotiations at any time without any liability to or responsibility for cost and expenses or damages of whatever nature of the other party to this MoU. Except with respect to the provisions regarding confidentiality and the parties each being responsible for their own expenses and fees, this MoU does not create any binding legal obligation. Neither party makes any express or implied representation or warranty as the accuracy or completeness of the information supplied to the other pursuant to this MoU. Each party and their respective officers, affiliates, controlling persons, representatives, agents and stockholders expressly disclaim any and all liability which may be based on such information, errors therein or omissions there from. Each party is entitled to rely solely on any representations and warranties made in any final agreement, if any.

2.3. Each party shall bear its own legal, accounting and administrative expenses in connection with the negotiation and consummation of the transactions proposed in this MoU. Either party shall have responsibility for the fees and expenses of any broker or advisor retained by the other.

2.4. Additions and amendments to this MoU shall only be valid if made in writing. The requirement of the written form can itself only be waived in writing.

2.6 Arbitration

The parties shall endeavor in good faith to resolve amicably all questions, differences or disputes whatsoever which may arise between the parties, in connection with this MoU or its validity.

Manufacturer/Trader, BEE and XXXX shall nominate one arbitrator. Both arbitrators shall agree on the third arbitrator within 30 days. Should the two arbitrators fail, within the above time-limit, to reach agreement on the third arbitrator, he/she shall be appointed under the Arbitration and Conciliation Act, 1996. The provisions of Indian Arbitration & Conciliation Act, 1996 or any re-enactment or statutory modification thereof for the time being in force shall be applicable for the settlement of the dispute. The decision of the arbitrator shall be final and binding on the parties.

The seat of arbitration shall be New Delhi.

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- 2.7** This MoU shall become effective upon signature by all parties. It shall terminate when the Agreement has been concluded or if otherwise notice of termination was given according to 2.3 above. In case of termination Clauses 2.2, 2.3, 2.4 and 2.6 shall survive the termination.
- 2.8** This MoU summarizes the basis upon which the parties intend to negotiate to the definitive agreement(s). Consummation of the proposed transaction(s) as outlined in this MoU is expressly subject to the parties reaching agreement on any necessary definitive agreements, to the approval of the Board of Directors [or equivalent] of each of the parties, and to any necessary governmental approvals.

XXX

Manufacturer /Trader

BEE:

Date:

Date:

Date:

Authorised Signature:

Authorised Signature:

Authorised Signature

Name:

Name:

Name:

Approved Small Scale Monitoring Methodology AMS-IIC

Results and comment under EB-41
Revised version 10 can be referred from UNFCCC site
<http://cdm.unfccc.int/EB/index.html>

Annex 17 -
Revision to AMS II.C
"Demand-side energy efficiency activities for specific technologies"
(version 10)

Programmatic Framework under the CDM

- A programme of activities (*PoA*) is a voluntary coordinated action by a private or public entity leading to anthropogenic GHG emission reduction.
- The physical boundary of a *PoA* may extend to more than one developing country.
- A *PoA* shall comply with all current guidance by the Board concerning the treatment of local/regional/national policies and regulations.
- A *PoA* shall be proposed by the coordinating or managing entity which shall be a project participant authorized by all participating host country DNAs involved.
- Project participants of the *PoA* shall make arrangements with the coordinator or managing entity, relating to communications, distribution of CERs and change of project participants.
- The coordinating entity of the *PoA* shall identify measures to ensure that all *CPAs* under its *PoA* are neither registered as an individual CDM project activity nor included in another registered *PoA* and that the *CPA* is subscribed to the *PoA*.
- All *CPAs* of a *PoA* shall apply the same approved baseline and monitoring methodology.
- The *PoA* shall demonstrate that net reductions in anthropogenic emissions or net anthropogenic greenhouse gas removals by sinks for each *CPA* under the *PoA* are real and measurable.
- The *PoA* shall therefore define at registration, the type of information which is to be provided for each *CPA* to ensure that leakage, additionality, establishment of the baseline; baseline emissions, eligibility and double counting are unambiguously defined for each *CPA* within the *PoA*.
- Each *CPA* shall be uniquely identified, defined and localized in an unambiguous manner including the exact start and end date of the crediting period, by providing, at the stage it is added to the registered *PoA*, the information required by the registered *PoA*.
- The duration of the *PoA*, not exceeding 28 years and 60 years for A/R project activities, shall be defined by the entity at the time of request for registration of the *PoA*. Any *CPA* can be added to the *PoA* at any time during the duration of the *PoA*.

Advantages of the Programmatic Framework

- Allows for an umbrella framework with many individual projects under an approved methodology.
- The multiple PDDs (called CDM Project Activities- Design Documents CPA-DD) part of the PoA.
- All PDDs have same monitoring/ validation requirements.
- Approval process of individual PDDs simplified substantially- no individual approval of PDDs by EB.
- PoA can be run by any agency including government.

Small Scale Program of Activity Design Document (SSC-POA) For “Bachat Lamp Yojana”

Will be uploaded soon

Status of the Bachat Lamp Yojana Scheme

Targets	Achievements
<ul style="list-style-type: none"> Encouraging CFL manufacturers & traders 	<ul style="list-style-type: none"> 12 CFL manufacturers and 8 CFL traders have shown their intent to participate in this CDM based CFL scheme Most of the market leaders in CFL technology in the country have been empanelled with the BEE under the scheme
<ul style="list-style-type: none"> Appointment of a monitoring and evaluation agency and Validators 	<ul style="list-style-type: none"> A Monitoring and Evaluation Agency has been short listed to undertake the monitoring of CFLs in the CDM project areas through SMART DURATION HOUR METERS with cutting edge GSM based Communication technology.
<ul style="list-style-type: none"> Preparation of Programme of Activities 	<ul style="list-style-type: none"> Program of Activity (PoA), an umbrella framework to harmonize and facilitate the development and implementation of the various CDM projects by empanelled manufacturers and traders in different parts of the country, is prepared A Designated Operational Entity (DOE) TuV Nord has been appointed for validation of the Programme of Activities (PoA) of the scheme
<ul style="list-style-type: none"> Present Status 	<ul style="list-style-type: none"> Bureau of Energy Efficiency signed a Tripartite agreement signed with M/s IRG and APCPDCL in Hyderabad on September 23, 2008. The first phase of the pilot project will begin in Ranga Reddy North where there are estimated to be 4 lakh households. M/s IRG has entered in an MOU with M/s Phillips India Pvt Ltd for implementation of this project. Bureau of Energy Efficiency signed a Tripartite agreement signed with M/s OSRAM India Pvt Ltd and MSEDCL in Hyderabad on September 29, 2008 for implementation of this scheme in Pune Rural. PDD for the VIZAG project being implemented by M/s OSRAM India Pvt Ltd got registered with the EB dated 26.09.08. M/s OSRAM Pvt Limited has started installing the smart Duration hour meter with VIZAG. 200 Smart Meters have already been supplied at the project site and installation is underway to carry out the baseline study. M/s OSRAM has placed order for another 100 Meters for the Yamunanagar project. PDD for the Yamunanagar project has already been sent for registration at the EB. MP Poorv Kshetra Vidyut Vitaran Company, Jabalpur has got its sample EOI vetted from BEE MPPKVVC and conducted a pre bid conference in Jabalpur dated 16.09.08 subsequently a EOI was issued on 20.09.08. Last date of receiving the Bids is 14.10.08. The bids shall be opened on 15.10.08. PSEB is undertaking negotiations with M/s Banyan Environmental consultants and M/s Intersuez Advisors Pvt Ltd to implement this scheme in state of Punjab.

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	<ul style="list-style-type: none"> • Uttrakhand Power Corporation Limited (UPCL) issued an EOI dated 16.07.08 inviting tenders from the empanelled bidders . • M/s Intersuez Advisors Pvt Ltd was found L1 and has been allotted a pilot in the state .Official communication from UPCL is still awaited . • Jaipur Vidyut Vitaran Nigam ,Jaipur (jvnl) shortlisted three parties to implement Bachat Lamp Yojana in Rajasthan . The shortlisted bidders are as follows <ul style="list-style-type: none"> • M/s Banyan Environmental Innovations • M/s Secure Meters and Energy Mad of NewZealand • M/s Green Point Energy. <p style="text-align: center;">*</p> <p>* Empanelment of M/s Secure Meters Energy Mad of Newzealand with BEE is awaited .</p>
<ul style="list-style-type: none"> • To address the issue of safe disposal of CFLs 	<ul style="list-style-type: none"> • BEE, along with the MoEF have developed guidelines on Environmentally sound Mercury Management to address the issue of safe disposal of the fused CFLs which shall be distributed under this scheme to the households by the way of buy back incentives to the households.

Criteria for this empanelment

Criteria for this empanelment were as follows.

1. Technical Particulars of the CFL products (15Watt, 20 Watts).
2. Test Reports from the National Accredited laboratories for their products as mentioned in **clause .1** indicating their products compliance with the available national standards viz. **IS: 15111 Part 1, 2.**
3. Mercury content within the CFLs (Maximum Limit being **less than 5mg**).
4. Suggested PF higher than .85 since it will become mandatory after 1.01.09.
5. Details about existing production capabilities of manufacturers.
6. Details about the present infrastructural set up in the country for the Indian and International traders.

FAQ's about CFLs

Why should people use CFLs?

Switching from traditional light bulbs (called incandescent) to CFLs is an effective. Making this change will help to use less electricity at home and prevent greenhouse gas emissions that lead to global climate change. Lighting accounts for close to 20 percent of the average home's electric bill. Bulbs, last up to 10 times longer, cost little up front, and provide a quick return on investment.

Do CFLs contain mercury?

CFLs contain a very small amount of mercury sealed within the glass tubing – an average of 4 milligrams – about the amount that would cover the tip of a ballpoint pen. By comparison, older thermometers contain about 500 milligrams of mercury – an amount equal to the mercury in 125 CFLs. Mercury is an essential part of CFLs; it allows the bulb to be an efficient light source. No mercury is released when the bulbs are intact (not broken) or in use. Most makers of light bulbs have reduced mercury in their fluorescent lighting products. Thanks to technology advances the average mercury content in CFLs has dropped at least 20 percent in the past year. Some manufacturers have even made further reductions, dropping mercury content to 1.4 – 2.5 milligrams per light bulb.

What are mercury emissions caused by humans?

Mercury released into the air from the coal-fired electrical power is the main way that mercury gets into water and bio-accumulates in fish. (Eating fish contaminated with mercury is the main way for humans tube exposed.)

Most mercury vapor inside fluorescent light bulbs becomes bound to the inside of the light bulb as it is used. It is estimated that the rest of the mercury within a CFL – about 11 percent – is released into air or water when it is sent to a landfill, assuming the light bulb is broken.

How do CFLs result in less mercury in the environment compared to traditional light bulbs?

CFLs use less electricity than incandescent lights, meaning CFLs reduce the amount of mercury into the environment .Because CFLs also help to reduce greenhouse gasses, other pollutants associated with electricity production, and landfill waste (because the bulbs last longer), they are clearly the environmental winner when compared to traditional incandescent light bulbs.

What precautions should I take when using CFLs in my home?

CFLs are made of glass and can break if dropped or roughly handled. Be careful when removing the bulb from its packaging, installing it, or replacing it. Always screw and unscrew the light bulb by its base (not the glass), and never forcefully twist the CFL into a light socket. If a CFL breaks in your home, follow the clean-up recommendations below.

How should I clean up a broken fluorescent bulb?

CFLs contain a small amount of mercury, recommendations for clean-up and disposal guidelines are as follows:

1. Before Clean-up: Air Out the Room

- Have people and pets leave the room, and don't let anyone walk through the breakage area on their way out.
- Open a window and leave the room for 15 minutes or more.
- Shut off the central forced-air heating/air conditioning system, if you have one.

2. Clean-Up Steps for Hard Surfaces

- Carefully scoop up glass fragments and powder using stiff paper or cardboard and place them in a glass jar With metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass pieces and powder.
- Wipe the area clean with damp paper towels or disposable wet wipes. Place towels in the glass jar or plastic bag.
- Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

3. Clean-up Steps for Carpeting or Rug:

- Carefully pick up glass fragments and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken.
- Remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed Plastic bag.

4. Clean-up Steps for Clothing, Bedding, etc.:

- If clothing or bedding materials come in direct contact with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, the clothing or bedding should be thrown away. Do not wash such clothing or bedding because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.
- You can, however, wash clothing or other materials that have been exposed to the mercury vapor from a broken CFL, such as the clothing you are wearing when you cleaned up the broken CFL, as long as that clothing has not come into direct contact with the materials from the broken bulb.
- If shoes come into direct contact with broken glass or mercury-containing powder from the bulb, wipe them off with damp paper towels or disposable wet wipes. Place the towels or wipes in a glass jar or plastic bag for disposal.

5. Disposal of Clean-up Materials

- Immediately place all clean-up materials outdoors in a trash container or protected area for the next normal trash pickup.
- Wash your hands after disposing of the jars or plastic bags containing clean-up materials.

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- Check with your local or state government about disposal requirements in your specific area. Some states do not allow such trash disposal. Instead, they require that broken and unbroken mercury-containing bulbs be taken to a local recycling center.

6. Future Cleaning of Carpeting or Rug: Air Out the Room During and After Vacuuming

- The next several times you vacuum, shut off the central forced-air heating/air conditioning system and open a window before vacuuming.
- Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after vacuuming is completed.

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*List of the CFL Manufacturers/Traders for CDM based CFL Scheme

S.no	Name of the Manufacturer	Address	Contact Persons Name	Contact Details
1	M/s Osram India Pvt Ltd	Signature Towers ,11 th Floor , Tower -B,South City -1,Gurgaon -122001	Mr Chandan Bhattacharjee Divisional Manager (Display Optics,OEM&UR- IR)	Phone No :0124-4081581 Fax :0124-4081577 c.bhattacharjee@osram.co.in
2	M/s Asian Electronics Ltd	Surya Plaza ,First Floor , K-185/1,Sarai Jullena, (Near New Friends Colony) New Delhi - 110025	Mr DS Bedi General Manager	Mobile No : 9312628768 ds.bedi@aelgrup.com
3	M/s Havells India Ltd	E-1 ,Sector 59 ,Noida -201307 UP India	Mr Sunil Sikka Sr VicePresident	Phone No : 0120-4771000, 4771002 Fax : 0120-2477666 sunilsikka@havells.com
4	M/s Surya Roshini Ltd	Padma Tower-1 ,2 nd Floor , Rajender Place ,New Delhi -110008	Arvind Bansal	Phone No :011-25810093 Fax :01125789560 arvindbansal@surya.co.in
5	M/s Phillips Electronics India Ltd	Motorola Excellence Centre, 5 th floor ,415/2,MehauriGurgaon Road, Sector -14,Gurgaon -122001	Mr Job Mathew Sr .GM sales and marketing Lalit Srivastava -Area Manager -TPF	Phone No :0124-4091900 Fax : 0124-4091993 job.mathew@philips.com
6	M/s Phoenix	Phoenix Lamps Ltd. 59-A, NSEZ, Phase-II, Noida. Uttar Pradesh - 201 305, INDIA.	Mr S.Ramesh DGM Smt Seema Bhagat (AVP)	Phone No : +91-120-2562952 upto 57 (6 Lines) Fax (Intl.) : +91-120-2562943, +91-11-26843949 halonix@vsnl.com s.ramesh@phoneixlamp.com

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7	M/s Finolex Cables Limited	14th Floor 'A Wing ,Statesman House , 148 Statesman Road,NewDelhi -110001	Mr Naresh Kumar Director	Phone : 01123319744,23324748 Fax: 01123715642 Email : sales@finolex.com
8	M/s Reliance Industries Ltd	Reliance Industries Ltd - Retail Business No.62/2, 2nd Floor Richmond Road Bangalore - 560 025	Shri Hari Kumar Home Improvement	Landline : +91 80 41498285 Mobile : +91 99016654907 Email id : hari.kumar@ril.com
9	M/s Wipro Consumer Care & Lighting	Doddakanelli ,Sarjapur Road Bangalore - 5600035 , India	Shri Sanjay Gupta Vice President Sales	Landline :080-28440011 ext 6203 Fax :08028440054
10	M/s Alien Energy Private Ltd	28,Rishab Vihar ,Karkardooma ,Delhi -92	Shri Akash Jain Director Aditya Malik (9810 250203)	Phone No :22372828 Telefax :01122375994 Email : akashjain@alienenergy.in
11	M/s HPL Protection Technologies Ltd.	Dhatoori Road, V & PO, Bhigan, Gannaur, Sonipat, Haryana - 131 003	Shri Praveen K. Baderia Senior Manager-Quality & Engineering	Phone No. 0130-2475955 Fax: 0130-2475956 Mobile No. 09812594292 Email: hpl@hplindia.com
12	M/s Epic Energy Ltd.	119, Patil Wadi, At-Rabale, Post-Ghansoli, Opp. Hotel Mallika, Navi Mumbai- 400 701	Shri Narhari Patil Head Operation	Tel: + 91 22 27692611 Telefax: + 91 22 27693706 Mobile No. 09833832665 Email: epicenergy@gmail.com , npatil@epicenergy.biz

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13	H.Q. Lamps Manufacturing Co.	Plot No. 73-75, Sec-6A, Sidcul Industrial Area, Haridwar, Uttranchal (India)	V.K. Sharma G. M. Marketing	Tel: 01334-329815, 239451 Fax: 01334-239460 Email: hqlamps@yahoo.co.in
14	Cenzer Industries Limited	401, Rangoli Time Complex, Dr. B.A. Road, Parel (E), Mumbai – 400 012. India	Joitkumar Jain (Chairman & Managing Director)	Tel: (022) 24158140/41 Fax: (022) 24185800 Email: sales@bistecindia.co.in

CFL Traders				
1	M/s AES	AES (india)Pvt Ltd 408,4 TH Floor ,Tower B Global Business Park Gurgaon -122002 Haryana	Ms. Ishani Chattopadhyay Country Head, Climate Solutions	Phone No : +61410332912 Mobile No :+91 9910265680 email : ishani.c@aes.com
2	M/s Banyan Consultant	Banyan Environmental Innovation Pvt Ltd , 602,Panorama Mansion ,Asif Avenue ,Soamjiguda ,Hyderabad- 500082	Mr Nityanand J.Agrawal CEO and Managing Director	Mobile no : 09346238867, 9989820777 agrwalnj@gmail.com
3	M/s PTC India Limited	2nd Floor ,NBCC Tower ,15 Bhikaji Cama Place New Delhi -110066	Mr P Varshney Vice President	Phone No : 01141659132 (D) 41659500 Fax : 01141659145 Email : pvarshney@ptcindia.com

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4	M/s Asia Carbon Emission Management India Pvt Ltd	167 ,Kodambakkam High Road,Nungambakkam,Chennai-600034,Tamil Nadu ,india	Mr N R Ravishunkar Regional Director Business Development and Origination	Phone No : 044-39180501 Fax : 044-39180501 email: ravi@asiacarbon.com
5	M/s Edf Trading	Head office (London) 80 Victoria Street,Cardinal Place ,3rd Floor London SW1E5JL (India Office) A-10 3rd Floor ,Sanskrit Bhawan , Qutab Institutional Area ,New Delhi -110067	Mr Auroskanda Vepari(London) Business development & Origination Mr HS Nagi (Delhi)	Phone Number : 01141651737 , 01126537524 Harmanjit.nagi@edf.fr &+442070614217 Mobile No : 09810333572 &+4479117203870 Fax : 01141651727 email : auroskanda.vepari@edftrading.com
6	M/s C-Quest Capital	4 Pembroke Street Bicton, 6157 Western Australia Australia	Mr Caroline van Tilborg	Tel: +61 (0)8 9319 8057 Fax: +61 (0)8 9319 8067 Mob: +61 (0)42 094 0279 Email: cvantilborg@cqcillc.com
7	M/s Intersuez Advisors Pvt Ltd	80/1-B,Malviya Nagar ,New Delhi -110017	Mr Babindra Gambhir Director Sunil Sood	Phone Number :01126684460 Fax :01126684290 Email : Sunil.sood@intersuez.com

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8	M/s Green Point Energy Pvt. Ltd.	501, Pearl Oasis, B-176, Mangal Marg, Babu Nagar, Jaipur - 302015	Shri Nilesh Gupta Director	Phone Number : 0141-4004530 Mobile No. 09928750500
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*Mentioned above are the manufacturers/Traders who have shown their intent to participate in the CDM based CFL scheme **Bachat Lamp Yojana** . This list is subject to additions as and when Manufacturers /Traders submit their letter of intent to the BEE .

CDM Terminologies and Acronyms

- **Adaptation Fund**

Two percent of the CERs from every CDM project are deposited in a special registry run by the Executive Board. Revenues from their sale will be used to fund climate change adaptation projects in developing countries. Projects in Least Developed Countries are exempt.

- **Additionality**

Additionality asks whether the CDM project would have happened anyway or whether it needed the CDM to go ahead. ***"It is generally recognised that credits for GHG emissions reduction should only be granted for projects that are additional; that is, for projects which would not have taken place in the absence of the crediting procedure or trading scheme"***.

Additionality is a critical issue. Registering a non-additional CDM project will result in no additional benefit to the climate and thus represents wasted investment. Furthermore, a non-additional project will generate fake carbon credits that an Annex I country can use to avoid making real emission reductions domestically, and ultimately leads to an increase in global emissions above what was expected due to the Kyoto Protocol.

- **Annex I countries**

The industrialized countries who have specific commitments to reduce greenhouse gas emissions under the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The only exceptions are Turkey and Belarus which are in Annex I but do not have reduction commitments under the Kyoto Protocol.

- **Baseline**

The baseline describes what will happen, and how many greenhouse gas emissions will eventuate, in the absence of the CDM project, ie. the business as usual outcome. It is the alternative, or "counter-factual" scenario that is used as a comparison with the proposed CDM project to estimate the emissions reductions that will be achieved, and helps to determine additionality.

- **Certified Emission Reduction (CER)**

The name given to a carbon credit from a CDM project. Credits from JI projects are called Emission Reduction Units (ERU). CERs are equal to one tonne of carbon dioxide equivalent (tCO₂e).

- **Crediting period**

The crediting period is the length of time during which the project will generate carbon credits. Under the Marrakech Accords projects can choose between a 7 year period which can be renewed twice to make a total of 21 years, or a one-off 10 year period. If they chose the former they must renew the baseline after every 7 year period. The crediting period is different from the project lifetime; a dam, for example, may have an estimated life of 50 years, but only be a CDM project and generate credits for 10 of those years.

- **Designated National Authority (DNA) for the CDM**

The DNA is the focal point for CDM matters in your country. It is frequently a unit in a government ministry that is responsible for administering CDM implementation and overseeing approval of projects. A list of some DNAs is on the official UNFCCC CDM webpage: <http://cdm.unfccc.int/DNA>.

- **Designated Operational Entity**

DOEs are accredited by the Executive Board and perform two functions: validating CDM projects, and verifying and certifying emissions reductions from projects. The same DOE cannot perform both functions for one project unless it is a small-scale project. A list of accredited DOEs is available on the UNFCCC CDM webpage : <http://cdm.unfccc.int/DOE>.

- **Emissions Trading**

The trading of emission allowances between Parties who have a reduction commitment under the Kyoto Protocol. It is expected that various national and regional trading schemes will be established.

- **Executive Board**

The CDM Executive Board supervises the CDM and makes the final decision about project registration and the issuing of carbon credits. The Board also makes the final decision whether to approve new baseline and monitoring methodologies and must approve new DOEs. The Board was elected at the Marrakech Conference of Parties in 2001 and has 10 members from Parties to the Protocol. The Board must meet no less than three times a year. Members are elected for a term of two or three years.

- **Joint Implementation**

Joint Implementation is one of the three so-called flexible mechanisms of the Kyoto Protocol, and like the CDM is project based – ie. Industrialized countries get reduction credits for investing in emission reducing projects in another country. In the case of JI projects, however, both countries have to have a reduction commitment under the Kyoto Protocol, unlike the CDM where the projects happen in countries without a reduction commitment.

- **Leakage**

Leakage refers to emissions that take place outside of the project boundary but are attributable to the project. For example, a large energy efficiency project may result in reduced electricity prices leading to increased usage and greenhouse gas emissions¹.

- **Marrakech Accords**

The Marrakech Accords set out the rules for CDM projects, with the exception of those involving forestry projects, although they did determine that forestry projects are restricted to Afforestation and Reforestation projects and set a limit on their use The Accords are named after the meeting at which they were agreed – the 7th Conference of Parties to the Climate Convention in Marrakech, Morocco, in 2001.

- **Monitoring and Verification**

The reduction in emissions achieved by a CDM project must be monitored by the project operator consistent with the monitoring plan outlined in the Project Design Document (PDD). This data is then verified by a designated operational entity, who then certifies that the reductions have taken place and recommends that the Executive Board issues carbon credits.

- **Project Boundary**

Each CDM project has to identify a “**project boundary**”. The project boundary encompasses all of the increases and reductions of greenhouse gases that are reasonably attributable to the project so that total reductions can be calculated. For example, a biomass plant utilizing agricultural waste that displaces coal fired electricity can claim credit for the reduction in emissions that results from its operations. But it may also have to account for the greenhouse gas emissions that result from the transporting of biomass to the plant.

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- **Project Design Document (PDD)**

The document that describes the prospective CDM project and how it meets the validation requirements spelt out in the Marrakech Accords. The PDD is the main document assessed by the validator and is made available during the 30 day public comment period.

- **Registration**

Registration is the final approval of a CDM project by the Executive Board, meaning the project can begin to generate carbon credits. Registration is expected to be a formality; the real decision about whether a project should be approved will be taken by the validator.

- **Stakeholders**

Stakeholders are defined in the Marrakech Accords as "the public, including individuals, groups or communities affected or likely to be affected, by the proposed clean development mechanism project activity".

- **Target**

Under the Kyoto Protocol industrialized countries agreed to reduce their emissions. The amount they agreed to is their target. The targets are expressed as a percentage reduction of greenhouse gas emissions compared to 1990 emission levels, which has to be achieved in the period 2008-2012. So, for example, Japan has a target of 6%, which means that in the period 2008-2012 its emissions must be 6% below what they were in 1990.

- **Transaction costs**

Transaction costs are the costs involved in developing a CDM project and then monitoring and verifying the emission reductions or sequestration that it achieves during the crediting period. It includes expenses such as preparing a PDD, which is usually done by a consultant, and baseline studies.

- **Validation**

Before a CDM project can be presented to the CDM Executive Board for registration, an independent certifier – the validator - checks whether it meets the CDM's validation requirements, which are in the 2001 Marrakech Accords. If the validator judges that it satisfies these requirements then it sends a recommendation to the CDM Executive Board, in the form of a validation report, that the project be registered. In reality, validation is the stage at which

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Projects are approved, with registration being a formality. If a validator says that a project satisfies the CDM requirements, it is unlikely to be rejected by the Executive Board

- **UNFCCC – the United Nations Framework Convention on Climate Change**

The UNFCCC is the Convention signed at the Earth Summit in Rio de Janeiro in 1992 which included a non-binding commitment by industrialized countries to stabilize their emissions at 1990 levels by 2000. When this proved inadequate, a supplementary protocol was agreed – the Kyoto Protocol – which committed industrialized countries to an average 5% reduction in greenhouse gas emissions by 2010 compared to 1990 levels.

List of DISCOMS who have shown their intent to BEE for undertaking this project in their respective customer region

1. Eastern Power Development Corporation of Andhra Pradesh
2. Jaipur Vidyut Vitaran Nigam Limited
3. Punjab State Electricity Board
4. Kerela State Electricity Board
5. Bangalore Electricity Supply Company
6. Upper Assam Power Distribution Company Limited
7. Lower Assam Power Distribution company limite
8. Uttranchal power Distribution Company
9. Tamil Nadu State Electricity Board .
10. Dakshin Haryana Vidyut Vitaran Nigam .
11. Bangalore Electricity supply Company
12. Chattisgarh State Electricity Board
13. M.P.Poorv kshetra Power Distribution Company Ltd.