

CDM DEMAND-SIDE ENERGY EFFICIENCY PROJECT – VISAKHAPTNAM, INDIA

Objectives: Reducing emissions and lowering power consumption

The project aims to increase the efficient use of electricity through the replacement of traditional incandescent light bulbs with energy-efficient lamps (CFL lamps), thereby reducing CO₂ emissions.

Background:

Most Indian households use conventional incandescent light bulbs. In India, CO₂ emissions from power generation are relatively high, typically 0.85 tonnes CO₂ are released per MWh of electricity generated. Furthermore, power demand often exceeds supply resulting in brown outs. One solution is to reduce demand by saving energy.

Project description

- > Together with Osram, one of the world's leading lighting manufactures, RWE Power is undertaking a demand-side energy efficiency project in India.
- > In around 700,000 households in the Visakhapatnam region standard incandescent light bulbs are being replaced by energy-saving lamps (CFLs) which are financed by Osram and RWE Power. The distributed CFLs consume up to 80% less energy than standard light bulbs.
- > For this project, CFL components had been imported from Germany and Italy to India where they have been assembled.
- > The distribution of the CFLs is carried out by locally recruited and trained teams. At the time of the distribution of the CFLs, the substituted GLS bulbs are collected, destroyed and recycled. All participating households are informed in detail how to use and handle the CFLs properly.

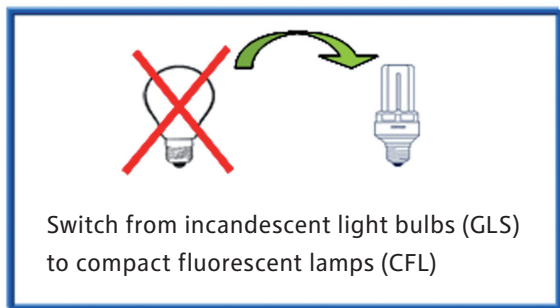
- > Meters have been developed, with an Indian electronics company, to measure the operating hours of the installed lamps (CFL). This equipment will be used to quantify the energy savings and therefore the emission reductions.



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Benefits: Increasing energy efficiency and reducing CO₂e emissions by 40,000 tonnes per year

- > The project will lead to considerable electricity consumption savings in the households that participate in the project, as the distributed CFLs have an up to 80% lower energy consumption compared to the replaced conventional lamps.



- > As a result the project will lead to reduced consumption of fossil fuel-based generated electricity in the southern Indian grid and therefore reduce CO₂e emissions by 40,000 t per year.
- > Furthermore, the project contributes to poverty alleviation by significantly reducing household expenditure on electricity.
- > Assembly technology and know-how are transferred from Germany to India.
- > The project has a high potential to be replicated throughout the country and other countries e.g. in Africa. RWE and Osram have developed two further CFL distribution projects in Pune and Yamunanagar & Sonipat, India. Both projects have been registered at the UNFCCC and involve 1,000,000 households.

Project title	Visakhapatnam (India) OSRAM CFL distribution CDM project
Project type	Demand-side energy efficiency
Host country	India
Project status	Registered as CDM project activity at the UNFCCC since February 12th, 2009
Crediting period:	10 years Start: February 12th, 2009
Emission reduction start:	May 11th, 2008
Average Emissions reductions p.a.:	40,000 t CO ₂ e