

PUNJAB ENERGY DEVELOPMENT AGENCY **Chandigarh (Punjab)**

Unit profile

Punjab Energy Development Agency (PEDA) was formed in Sept. 1991 as a State Nodal Agency for promotion and development of New & Renewable Energy sources in the State of Punjab under the guidelines of Ministry of New & Renewable Energy, Govt. of India.

The Government of Punjab has also declared PEDA as the State Designated Agency (SDA) to co-ordinate, regulate and enforce the Energy Conservation Act-2001 in the State of Punjab in April, 2005 as per clause 15(d) of the Act under the guidelines of Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India. PEDA has contributed various important initiatives / projects for the promotion of Renewable Energy & Energy Efficiency in the State of Punjab. PEDA has been conferred with National Energy Conservation Awards in appreciation of their efforts in energy conservation in the State Designated Agency sector for the year 2008, 2010, 2011, 2012 & 2013.

PEDA has also become the State Agency for the Renewable Energy Certificate (REC) accreditation in the state of Punjab under the notification dated 30th November, 2010 by Punjab State Electricity Regulatory Commission (PSERC) in accordance with the REC Regulations of Central Electricity Regulatory Commission (CERC).





Mini Hydel Power - 135 MW



*Solar photovoltaic power - 218 MW
 (Largest Roof top SPV Power Plant at Dera Beas
 Amritsar - 7.5 MW to be expanded to 20 MW)*



Waste to Energy - 1 MW



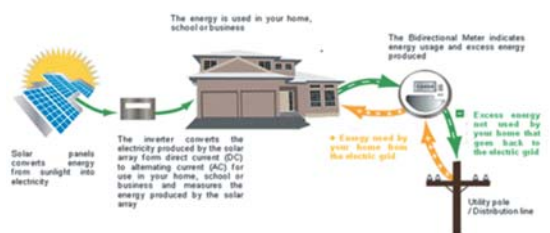
Solar Steam Cooking System - 320 Sq. M



Cogeneration - 410 MW



Solar Water Heating Systems - 29 lacs LPD



Net metering Solar Power System



Farmer Solar Power Scheme

Energy Consumption & Energy Saved in 2014 - 15

- Electricity Consumption in MU in the state - 39755.46 MU
- Energy saved in MU by carrying out EC activities - 763.99 MU
- % Saving - 1.92 %

Demonstration Project of Energy Efficiency under LED Village Campaign

- 1000 Incandescent bulbs (100 W) replaced with 10 W LED lamps in village Chunni Khurd, Distt. Fatehgarh Sahib (2011-12)

Project Cost	Rs. 12.70 Lacs
Annual Energy Saving	Rs. 9.85 Lacs
Simple Payback period	1.29 years



- 6900 Incandescent bulb (60 W) replaced with 7W LED Lamps in different villages viz., Nag Khurad, Wadala Verrum, Rohti Khas, Palahi, Ramgarh Sikkari, Ladhu Wala Uttar, Lehra Sondha, Mann, Aladeenpur and Munda (2014-15)

Project Cost	Rs. 16.00 Lacs
Annual Energy Saving	Rs. 38.03 Lacs
Simple Payback period	5 months



Demonstration Project of Energy Efficiency in Street Lighting Municipal Corporation, S.A.S. Nagar (Mohali)



- 126 no. 180 W Street lights replaced with 90W LED street light

Project Cost	Rs. 21.96 Lacs
Annual Energy Saving	Rs. 2.90 Lacs
Simple Payback period	7 years

Energy Efficiency Demo Projects

- Municipal Street Lighting (LED Based) at MC, Majitha, 170 LED street lights (30W & 40W) having annual energy saving potential of 0.79 lacs Units (80%).
- Revamping of drinking water supply pumping system at Mai Bhago Polytechnic College for Women, Amritsar having annual energy saving of 48.7%.
- 83 no. 250 W HPMV street lights replaced with 72W LED street light, 181 no. 150 W MH street lights / flood lights replaced with 100 W LED lights and New 10 no. LED lights of 72 W and 2 no. LED lights of 100W installed to maintain the uniformity of Lux level at Sirhind Mandi, Distt. Fatehgarh Sahib having annual energy saving 0.11 MUs.
- Replacement of 126 nos. existing Street lights of Municipal Corporation S.A.S. Nagar (Mohali) with Energy Efficient 90W LED lights from PCL chowk to Chandigarh boundary Phase-2, having annual energy saving 0.053 MUs.
- 6900 nos. Incandescent bulb (60 W) replaced with 7W LED Lamps in different villages viz., Nag Khurad, Wadala Verrum, Rohti Khas, Palahi, Ramgarh Sikkari, Ladhu Wala Uttar, Lehra Sondha, Mann, Aladeenpur and Munda having annual energy saving 0.63 MUs.
- Revamping of 13 nos. drinking water supply system at Municipal Corporation S.A.S. Nagar (Mohali) having annual energy saving of 20%.

Other Important Energy Conservation Activities

- PEDA conducted Investment Grade Energy Audit (IGEA) of 27 Govt. / Public buildings for implementation of energy efficiency projects.
- PEDA conducted Investment Grade Energy Audit of two big institutions i.e. Punjabi University, Patiala and National Institute of Pharmaceutical Education & Research (NIPER), Mohali covering all areas such as buildings, water pumping, street lighting, sewerage pumping etc. having saving potential of 1.21 MU & 0.51 MU respectively.
- PEDA has established Energy Information Centre (EIC) at Solar Passive Complex, Chandigarh.
- Brochures (Folders) on energy conservation in Punjabi & English were distributed among various stake holders during the meetings, seminars, conferences, trainings and workshops
- Note-book stickers and time tables on the theme of energy conservation were distributed in the schools.

- Survey of Commercial Buildings as Designated Consumers in the State of Punjab which fall under Energy Conservation Act, 2001.
- Report on Impact of Energy Conservation Activities in the State of Punjab.
- Punjab Govt. Circular dated 30.05.2013 to adopt threshold BEE Star rating for electrical appliances i.e. Split Air conditioner, Frost Free Refrigerators, Ceiling fans and water heater.
- Prepared & published report on Impact of EC Activities in the State of Punjab through Punjab State Council for Science & Technology, Chandigarh.
- Sector Specific Annual Energy Savings Plan for Municipal Corporations and Municipalities in the State of Punjab has been prepared through M/s. MITCON Consultancy & Engineering Services Ltd. Pune.
- Developed materials on Energy Conservation for its incorporation in the ITI and Diploma Engineering College Curriculum for the State of Punjab through NITTR, Chandigarh.
- Debates on Energy Efficiency & Conservation in ITI, Diploma Engineering College & Engineering College level through PSCST, Chandigarh.
- 260 Energy Clubs established in schools through PSCST, Chandigarh.
- Theory-cum-Practice Oriented Training, skill up-gradation and refresher training of operators on Energy Efficiency conducted through National Institute of Secondary Steel Technology, Mandi Gobindgarh.
- Painting competitions on Energy Conservation for the students of 4th, 5th, 6th standard (Category 'A') & 7th, 8th & 9th standard (Category 'B'), 10,220 Schools 5,26,573 students participated in 2015-16.
- The Punjab - ECBC has been prepared after amendment of ECBC as composite climate zone applicable for the State of Punjab is under process for approval
- Stakeholders meeting for adoption of Punjab ECBC held on 05.02.2014 at Chandigarh.
- Conference on Promoting Energy Efficiency and Green Energy in Hospitality Industry (PHD & PEDDA) held on 18.07.2014 at Chandigarh.
- Interactive Workshop on 'Concept and Application of Normalization Factors under Perform, Achieve & Trade (PAT) Scheme (Cycle-1) in Textile Sector' held on 20.08.2014 at Chandigarh.

- One Day interaction-cum-meeting involving ULBs and other Stakeholders under MuDSM Scheme held on 27.08.2014.
- One Day Conference on "Addressing Financing Issues for Energy Efficiency Projects" held on 16.09.2014.
- Organizing one day Regional Interactive Workshop on the Conduct of Mandatory Energy Audit, Energy Audit Report Structure and Verification Process of PAT Cycle-1 held on 19.09.2014 at Chandigarh.
- State Level Energy Conservation Day has been celebrated in association with PSPCL on 23th December, 2014.
- Under PAT Cycle-1 Scheme, the total number of Energy Saving Certificate (EsCERTs) for over achievement of 21 Designated Consumers = 1,85,238.
- Energy Conservation Awareness Program for school students held on 10th April, 2015 at Govt. Girls Sr. Secondary School, Jalandhar.
- First of its kind in the country and unique program to create energy auditors amongst school students, Principals and Teachers regarding Energy Conservation & Efficiency for Schools in the state of Punjab held on 12th May, 2015 at Lovely Professional University, Jalandhar.
- Punjab State Energy Conservation & Efficiency Campaign for Schools in the state of Punjab held on 13th May, 2015 at Guru Nanak Dev University, Amritsar.
- Conduction of 3 day Capacity Building Program for Practicing Energy Auditors and Energy Managers of Industries at Chandigarh held on 10th-12th September, 2015.
- Workshop to Promote Model EPC Contracts to Scale up the ESCO & Energy Efficiency Business held on 18th November, 2015.