

Conserve's Delivering Performance through Sustainability Audit: Visteon, Chennai

The Client

Located at Maraimalai Nagar, Chennai, Visteon Automotive System India Private Limited is a leading manufacturer of automotives in the world with 21 manufacturing units world-wide including 3 in India. Apart from being a primary supplier to Ford India, it is a key supplier to major domestic and multinational OEMs in India.

The Challenge

Having adopted world-class standards, the Sustainability Policy of the Company envisages Visteon Chennai to reduce CO2 emissions through improvement in energy efficiency @ 10% every year. In addition to the various in-house activities, Visteon approached Conserve Consultants for increasing its efficiency by availing the Sustainability Audits and Services.

The Solution

- An analysis of the energy consumption of different equipment revealed major power consumption from:
- Manufacturing Process Equipment like CAB furnaces, Molding machines, Deoiler and Degreaser consuming 53%
- Utility Equipment like Compressed Air System, HVAC and Furnace consuming 47%
- Energy Conservation Measures (ECMs) identified:
- Arresting air leakages and increasing delivery pipeline sizes in Compressed Air Systems
- Modification of Chilled Water Lines, Isolation of Chillers in HVAC Systems
- Heat recovery from exhaust, Arresting heat escape from Furnace in Manufacturing Equipment
- Contemporary approach using emerging technologies like Daylight controllers and SRI paints

The Benefits

- 0.35 million units of energy savings worth 3 million rupees for 2014-15
- 311 tons of CO2 emission reduced
- All ECMs identified with a minimum payback period of 6 months to give savings of 0.30 million units

- The complete air-conditioning system was made to work on solar energy.
- Temperature, humidity, glare and adjustable task lighting to optimum levels enabled
- Recycled and rapidly renewable material requirements of the LEED Rating system far exceeded in material selection
- Green power generated using Solar PV and micro wind turbines, thus reducing the burden on the external grid.

The Benefits

- In the year 2009, Turbo Energy Limited's (TEL) 'R&D and Administration Block', at Paiyanur, Chennai achieved the highest points 62/ 69, under the USGBC LEED - NC v2.2, thus becoming the second greenest building in the world after 'Dockside Green' Project Phase I – Synergy project in British Columbia with 63 Points in the same year.
- The project got Full Points (17/17) in the energy and atmosphere category of the LEED Rating system, with a saving of 48% in energy consumption over ASHRAE.
- The energy saved due to passive architectural design was 5.2% of the overall energy consumption of the building on ASHRAE baseline.
- The project also achieved Full Points in Water Efficiency and Indoor Environment Quality.

"We appreciate Conserve's efforts and active involvement in this project right from the beginning. We are extremely happy with the day lighting design and simulation and Conserve's help in selecting the right glazing system. The project has hardly used any artificial light over the last one full year of operation. With their help in Solar Air-conditioning system the project has earned full 10 points in this category and also 17 out of 17 points under energy and atmosphere which is highest point any one can get."

- Quote by TEL Representative