

Energy-Carbon View (ECView)

Innovation labs

As the effects of global warming become increasingly visible, regulatory pressure on corporations to report their energy and carbon footprints and 'go green' has intensified. Apart from this, there is pressure on enterprises to reduce energy bills, improve stakeholder perception, and even look for additional revenues through green measures. Therefore, an enterprise has to continuously assess its "as-is" state, identify the chief carbon/energy contributors and execute measures to reduce the energy and carbon footprints.

To help overcome the challenges in going green, we, at Tata Consultancy Services (TCS), offer our Energy-Carbon View (ECView) solution. Our comprehensive, enterprise-wide energy and carbon management tool helps enterprises to monitor, assess, report, manage, and improve the energy and carbon footprints. The solution offers real-time views of energy, cost, and carbon footprints and enables compliance and reporting in adherence to regulatory requirements.

Overview

Enterprises such as yours are increasingly aware of the carbon footprint and are taking steps to reduce it. In the journey to go green, enterprises look to monitor the current energy and carbon footprints by tracking several parameters across geographically dispersed sites. You seek to identify the chief contributors to the carbon and energy footprints, the steps to be taken to reduce the footprint and the right carbon-reduction target. Enterprises look for the optimal way to source 'green' energy. Further, there is a need to ensure data quality and accuracy, assimilate the data to extract useful insights, and enable decision-making to choose the right transformation option. It is critical for you to achieve this while deriving maximum benefits from your investments and ensuring compliance with existing and impending regulations.

Our comprehensive, enterprise-wide energy and carbon management tool, ECView, helps sustainability officers in your organization to track and manage the energy and carbon footprints. The offering assists in assessing the as-is status of your energy/carbon footprint, identifying areas for improvement, choosing appropriate methodologies to improve the current situation.

The solution has features that enable:

- **A real-time, fine-grained view of energy, cost, and carbon footprints:** The solution tracks all parameters relevant to energy, cost, and carbon footprints in real-time and analyzes these at multiple resolutions (resource, activity, and business-process levels) to provide valuable insights.
- **Data quality:** ECView ensures the quality of data during the data gathering process through appropriate validation workflows and supporting documentation. The solution also has capabilities to quantify the 'uncertainty' in the gathered data and to collate it at the enterprise level by leveraging statistical techniques.
- **Benchmarking:** ECView supports standard metrics to benchmark and compare enterprise facilities such as BEE Star and US EPA rating. In addition, the offering enables a sustainability officer to define Key Performance Indicators (KPIs) so that the current status of the enterprise and its facilities can be understood from different perspectives. The tool also allows users to set targets for their consumption, cost, and carbon footprints to compare the current condition against the targets and to evaluate the headroom and overshoots.

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- **Compliance and reporting:** ECVIEW's data-gathering and benchmarking abilities enable enterprise-wide energy and carbon footprint reports in sync with Greenhouse Gas (GHG) protocol standards. This meets the reporting requirements of organizations such as GRI, CDP, and EPA.
- **'What-if' studies:** ECVIEW helps users understand the impact of business decisions and future actions on the carbon footprint of an enterprise's facilities by simulating hypothetical scenarios. Such studies are enabled by leveraging proprietary mathematical models, facility-specific data, and other standard data. Our framework allows users to construct customized 'what-if' studies rather than restricting them to a fixed choice of options.
- **Energy Conservation Measures (ECMs):** ECVIEW can analyze the energy consumed in a facility in conjunction with the facility's infrastructure and operational pattern and prescribe appropriate measures that reduce the energy consumption. The prescribed measures will be accompanied by appropriate financials indicating the investment required and pay-back period.
- **Energy purchase planning:** ECVIEW facilitates the 'greening' of an enterprise through supply side optimization by charting the optimal power purchase plans for enterprise facilities. Based on a facility's location, energy-demand profile, prevailing regulations, and the available conventional/ green energy sources, ECVIEW suggests a cost-optimal, green energy sourcing plan for the facility.

Benefits

ECVIEW brings in benefits of:

- Enhanced visibility on the energy and carbon footprints of an enterprise, which is more than what meters and building management systems provide;
- Easy identification of pain-points and areas for improvement;
- The ability to discover and share best operational practices across the enterprise leading to reduced energy and carbon footprints;
- Increased revenue through identification of appropriate energy conservation measures and carbon abatement projects;
- Enterprise-wide energy and carbon emission reports towards meeting regulatory requirements.

The TCS Advantage

At TCS, we offer solutions that are backed by our expertise in managing the energy and carbon footprints of our own enterprise as well as those of our customers. Our ECVIEW solution enables standard ratings such as BEE and US EPA for your facilities. We strengthen the engagement with our:

- **In-depth analytics:** This TCS solution can provide insights at granularities finer than those provided by a facility's metering infrastructure. This is because we use patent pending innovative techniques and algorithms for understanding a facility's energy and carbon footprints under different configurations.
- **A Strong R&D Base:** This solution has evolved from research at TCS Innovation Labs – Chennai which has a team of researchers qualified in universities of renown worldwide. The lab's sole research focus is towards designing and developing appropriate enterprise-scale sustainability solutions. It is a part of TCS' global network of Innovation Labs that have pioneered software tools and continue to work on cutting edge technologies.

Contact

To know more about TCS ECVIEW, contact innovation.info@tcs.com

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

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