



Case Study

Top automobile manufacturer reduces GHG emissions through process optimization

A leading automotive company aimed to monitor and manage their energy consumption and reduce their carbon footprint across direct and indirect emissions sources in their operations.

The Challenge

Assessing the barriers to sustainable energy utilization

The client encountered obstacles that restricted their energy optimization and cost reduction potential. Here are some of the barriers:



- Quantifying onsite energy use per manufacturing unit
- Handling dispersed assets that provided inaccurate energy reporting
- Enhancing reporting views that lacked comparability
- Detecting optimization possibilities in local and onsite settings

The Objective

Optimizing energy management for sustainable manufacturing processes

The client implemented crucial strategies to overcome the challenges and reduce greenhouse gas (GHG) emissions. The following are some of their key objectives:



- Delivering contextual information for onsite energy consumption measurement per manufacturing unit and facilitating bottom-up aggregation
- Consolidating distributed assets to ensure accurate reporting of energy usage
- Creating a reporting view to foster comparability across entities and regions
- Capitalizing on optimization opportunities in local and onsite environments to reduce energy expenditure and GHG emissions



The Solution

Driving continuous energy consumption improvements

The client made significant headway in the energy management initiatives to bring down their GHG scope 1 and scope 2 emissions through HCLTech's Google Ecosystem Unit (GEU). The solution was aimed at:



- Identifying energy optimization potentials by providing insights and recommendations
- Collecting raw, uncompressed energy and process data from local manufacturing and diversified assets in workspaces by using IoT devices and sensors
- Normalizing energy consumption in real-time and grouping it into comparable segments by using machine learning and analytics
- Getting the client ISO 50,001 certification by demonstrating energy efficiency and management

The Impact

Making progress toward sustainable development goals (SDGs)

The client observed quantifiable results as they gained real-time visibility of the impact and effectiveness of their energy optimization actions. Notable among them were:



- 7% reduction in energy consumption
- 25% increase in reporting of ESG KPIs