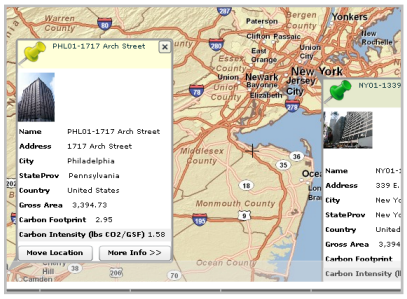
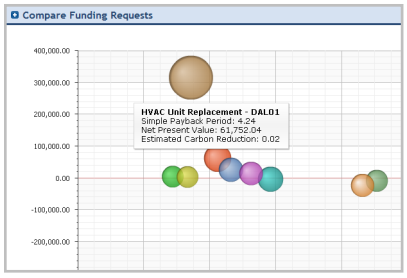
TREES®

Manage energy, carbon, and environmental performance across enterprise facilities and assets



Pre-built metrics evaluate energy and environmental performance to identify resource-intensive facilities



Environmental Opportunity Analysis generates higher savings from sustainability projects

Evaluate and Select

TRIRIGA Real Estate Environmental Sustainability provides the capability to track and manage energy use and environmental performance across enterprise facilities and assets. Given that facilities account for a staggering 48% of energy consumption and greenhouse gas emissions[1], facilities are likely an important part of your sustainability strategy.

It is no secret that reducing the energy use and environmental impact of your facilities will reduce costs and increase asset value. However, most organizations are unable to effectively identify the building retrofits and maintenance projects that will yield the best financial and environmental returns.

To realize the substantial benefits expected from a sustainability strategy, organizations require excellent analysis, planning, and implementation capabilities. Energy consumption and emissions data must be collected from a wide variety of locations and systems across the enterprise. Environmental data must be centralized and aggregated to allow for the evaluation of environmental opportunities across the enterprise. Most organizations still rely on spreadsheets and emails to manage energy use and environmental performance. This makes enterprise- wide analysis and planning extremely cumbersome and error-prone. In order to effectively implement a sustainability strategy, organization require an enterprise-class system to address the challenges of data collection and decision making.

TREES: Reduce Environmental Costs and Improve Environmental Performance

TREES builds on the TRIRIGA suite of best-in-class Integrated Workplace Management System (IWMS) solutions to deliver an energy, carbon, and environmental performance management solution specifically designed to meet the needs of enterprise facilities and assets. TREES provides a single, comprehensive repository of environmental data that is used to measure and track environmental performance, evaluate opportunities to reduce costs and improve environmental performance, and manage project implementation.

TREES provides a complete solution to measure, manage and reduce the environmental impacts and costs of enterprise facilities and assets.

Measure: Baseline and Benchmark Energy, Carbon, and Environmental Impact

Implementation of an environmental sustainability strategy starts with collection and compilation of critical workplace asset information, including energy consumption and emissions data. TREES provides multiple date migration methods to gather and processes environmental data into a single shared database repository. The system feeds environmental data into the TREES carbon calculator to calculate carbon emissions. Embedded performance metrics provide visibility into resource consumption, carbon emissions, workplace operations costs and environmental performance benchmarks.

- TRIRIGA Carbon Value Analysis, the TREES imbedded carbon calculator, accurately calculates the carbon footprint of workplace assets and operations. An integrated Geographic Information System (GIS) maps carbon footprint and other environmental performance metrics of the organization's locations. Color coded regions and push-pin icons identify underperforming locations and areas for improvement.

- Integrated LEED (Leadership in Energy and Environmental Design) rating system calculates LEED credits. LEED checklists for new construction, existing buildings and commercial interior retrofits come standard. Specific projects can be associated with LEED credits. And, TREES provides a LEED Project Summary report detailing the projects costs required to meet LEED requirements.

- TRIRIGA is the first IWMS vendor to offer direct integration to the ENERGY STAR® Portfolio Manager. With this capability facility managers can now automate the process of rating buildings based on the ENERGY STAR rating system.

- TRIRIGA Workplace Performance Management for Environmental Sustainability measures and assesses overall environmental and financial performance. This includes metrics to measure energy use, greenhouse gas emissions, waste produced, and other resource use.

Manage: Evaluate and Plan Opportunities to Improve Environmental Performance

The next step in the implementation of an environmental sustainability strategy requires a system to evaluate opportunities reduce energy use and carbon emissions. TREES provides integrated analysis tools to analyze and compare energy efficiency measures to optimize the financial and environmental return on capital invested.

- TRIRIGA Facility Assessment collects and identifies environmental opportunities for existing buildings in the portfolio. Facility Assessment provides scenario analysis to evaluate funding requirements and financial return of building retrofits and preventive and corrective maintenance projects based on environmental sustainability objectives.

- Green Condition Index measures the funding required at the building level to meet environmental sustainability goals.

- Energy Value Calculator includes the United States Environmental Protection Agency's Energy Star rating calculations to estimate and identify the energy opportunities across the portfolio that provide the highest return from an energy reduction and carbon abatement perspective. The Energy Value Calculator calculates financial savings on annual operating expenses, net operating income and enhanced asset value of workplace assets to determine and flag energy opportunities for capital spend that meet both environmental and financial objectives.

- TRIRIGA Energy Opportunity Summary prioritizes environmental opportunities across the real estate portfolio based on the Energy Value Calculator results. This analysis tool determines the best use of capital funds based on established corporate and environmental sustainability goals and submits selected projects for approval and funding. The Energy Opportunity Summary Report lists the projected costs, budget required and savings and carbon footprint reduction from the portfolio down to the individual building and location.

Reduce: Implement and Maintain Improvements to Environmental Performance

In order to achieve the benefits of an environmental sustainability strategy organizations must implement the programs and projects identified and maintain the improvements realized. A project management system is necessary to ensure that improvement projects are implemented within the planned scope, schedule, and budget. Once projects have been implemented, a operations and maintenance system is needed to perform critical preventative maintenance and commissioning tasks.

- TRIRIGA Operations pre-defines processes to improve energy efficiency of workplace operations and manage building retrofits to reduce carbon footprint, energy consumption and costs. Commissioning manager functionality provides embedded procedures to ensure efficient use of material, energy and water from building retrofits to daily facility maintenance. Preventive maintenance functionality improves the overall operational efficiency of critical assets and equipment to further improve and reduce environmental impact of workplace operations. Energy and Water Consumption Reports combined with Emissions Report record impact of environmental actions.

- TRIRIGA Real Estate transaction pre-defined processes and practices ensure compliance with sustainability goals and metrics. The co-location functionality aggregates and consolidates underperforming buildings within the portfolio to further reduce energy consumption and greenhouse gas emissions. The Real Estate disposition functionality eliminates locations to reduce environmental footprint of underutilized workplace assets. The Environmental Expenditures and Investment Reports track and report on the cost of all environmental-related projects and actions associated with workplace assets and operations.

- TRIRIGA Facilities improves workplace utilization through pre-defined processes to reduce vacant space and decrease overall carbon footprint through improved space management. Shared office assignments and scheduling functionality provided by TRIRIGA Reserve reduce space demand and offset the overall supply required to support company growth. This key functionality minimizes the environmental footprint of facilities. Revenue per Emissions and Cost of Operations per Emissions provide two critical metrics to track and monitor facility spend and overall workplace operations to align with corporate environmental sustainability objectives.

Actively, Accurately Measure and Manage Environmental Performance

TRIRIGA® offers a complete, fully integrated system to achieve environmental sustainability goals. TREES extends the industry-leading capabilities of TRIRIGA's IWMS operational and performance management product suites to assess, evaluate and implement opportunities to specifically reduce carbon footprints. It uses the same common tools and database across both operational and performance management applications for real estate, facilities, projects and operations. This powerful combination enables accurate assessment of current conditions and management processes to reduce environmental impact.

TREES embeds analytical functions such as the carbon calculator and energy star rating calculator into TRIRIGA workplace operations management business processes to evaluate environmental opportunities and automatically measure and report current performance against objectives. Further, analytical information and geographical maps provide immediate access to operational data and transactions for management to take corrective action.

TREES provides a 24 environmental sustainability metrics to measure and benchmark performance based upon the real-world experience of TRIRIGA's market-leading customers, standards organizations and more than 20 years of experience with measurement, management and reduction of environmental impacts. These pre-defined metrics deliver enormous value to organizations as they develop and implement sustainability strategies.

TRIRIGA: Uniquely Positioned to Deliver Customer Success

Recognized by leading industry analysts as the best-in-class solution, TRIRIGA IWMS provides the industry's most extensive functionality in a fully integrated IWMS solution. With TRIRIGA IWMS, organizations can significantly improve financial performance and return on workplace assets. TRIRIGA's extensible technology provides customers with unmatched business agility to align and rapidly re-align objectives and the organization's processes to improve environmental and financial performance. With hundreds of successful IWMS implementations, TRIRIGA's Professional Services organization provides implementation services and expertise with operational efficiency and performance management. With an outstanding network of consultants, partners, industry experts and market-leading customers, TRIRIGA delivers exceptional service and proven best practices.

To find out more about how TREES improves the bottom line, contact an expert at 702-932-4444.

[1]Per US Energy Information Administration

Product Features

- Pre-defined, Role-based Portal for Environmental Director/ Planner
- Environmental Metrics added to 11 current Role-based Portals
- Checklist Manager with 4 Embedded USGBC LEED Checklists
- GIS Map View for Performance Metrics and Queries
- Carbon Footprint Calculator and Carbon Log
- Utility, Waste, Travel and Emissions Logs
- Carbon Credit Log
- Carbon Footprint Analysis Tool
- Environmental Opportunity Forms with Environmental Analysis
- Planned Work Request Analysis and Approvals
- 24 pre-built Environmental Performance Metrics
- 17 Metric Dimensions
- Personalized Filters and Drill-paths for Analysis
- Financial Staging Tables for Financial Cost Data
- Financial Data Off-line Form
- Performance Metric Targets
- Performance Thresholds for Industry Benchmarking
- Time Trend Analysis
- IWMS Star Schema Analytics Data Model
- Utility Bill Invoice Form and Processing
- Facility Assessment Analysis Form
- Environmental Survey Request Form and Environmental Survey Metric
- Asset and Location Disposition

Metrics

TREES includes 24 performance metrics to evaluate and analyze environmental performance:

- Energy Use
- Energy Cost
- Energy Use Intensity (GSF)
- Energy Use Intensity (GSF/Degree -day)
- Energy Use Intensity (Occupant)
- Emissions (Carbon)
- Emissions (Carbon) Intensity (GSF)
- Emissions (Carbon) Intensity (Occupant)
- Water Use
- Water Use Intensity (GSF)
- Water Use Intensity (Occupant)
- Solid Waste
- Solid Waste Recovery (%)
- Environmental Evaluation Survey
- Green Condition Index
- Emissions To Air
- Emission Intensity (GSF)
- Revenue/Carbon Emissions (CO2)
- Total Operating Cost / Carbon
- Emissions (CO2)
- Checklist Rating
- Environmental Efficiency Ratio
- Environmental Opportunity
- Analysis
- Energy Cost Ratio
- Renewable Energy Ratio

Metrics Dimensions

TREES includes 17 metric dimensions:

- Geography
- Location
- Energy Type
- Capture Period
- Building Class
- Tenure (Lease/Owned)
- Solid Waste Type
- Requesting Organization
- Question Category
- Building System
- Cost Code
- Organization
- Service Code
- Project Group
- Project
- Checklist Type
- Checklist Category

Additional Filters

- TREES includes four additional filters for
- US Government Environmental Metrics:
- Real Property Type
- Real Property Use
- Mission Dependency
- Legal Interest

Reports

TREES includes 8 pre-built reports:

- Environmental Impact
- Energy Opportunity Summary
- Environmental Expenditures and Investments
- Energy and Water Usage
- Waste Disposal and Recycling Report
- Emissions Report
- LEED Project Summary
- LEED Checklist

IWMS Products optionally included in TREES Solution:

- TRIRIGA Facility Assessment
- TRIRIGA Operations
- TRIRIGA Reserve
- TRIRIGA Real Estate
- TRIRIGA Facilities

TRIRIGA®
An IBM Company

The Global IWMS Leader

6720 Via Austi Parkway, Suite 500, Las Vegas NV 89119 | 702-932-4444 | 888-TRIRIGA | www.tririga.com |