


TEAM CO-OP
Total Environment and Asset Management Cooperative

The Missouri Story on Enterprise Sustainability

THE CHALLENGE

Between 2000 and 2005 the State of Missouri experienced a rapid increase in the cost of energy, escalating real estate costs and an ever-increasing deferred maintenance backlog. Effectively, their real estate portfolio was out of control. With a new administration in place the State began an aggressive enterprise-wide program to gain control of its portfolio. Relying on the integration of data, visual analysis, and collaboration of staff, not only did they regain control of the portfolio costs but also generated significant savings.

A TEAM CO-OP APPROACH

The TEAM CO-OP solution, ESCO 2.0 (Enterprise Sustainability Contract) is a visionary approach to managing a portfolio of facilities from a global and total cost of ownership perspective. The key to the solution is providing executives, managers, and workers with the right information, in real-time to make correct, informed decisions.

Data and control information flows from a wide variety of software applications, and Internet-enabled devices that are all connected through secure communications to a Global Access Facilities Portal. Based on “role,” individuals access information on their particular site, facility or function (e.g. energy) and are able to drill down into detailed information.

Internet connection and integration of multiple vendors’ controls, meters, and communications systems are accomplished by leveraging off-the-shelf interconnect devices and network components. Fault detection, analysis, alarms, sequencing, and orchestration are performed in a "cloud computing" framework, leveraging standard protocols, tools, and applications.

The ***Global Access Facilities Portal*** provides access to detailed information in the broad categories of space, utilities, operations and maintenance, energy and capital planning. This information is displayed in various “cockpits” that are designed to provide the user a powerful view of the data through graphical interface. User inputs and decisions are enabled through secure transactions with "role-based" limits and access.

Facilities Dashboard

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THE RESULTS:

- Annual savings from real estate, operations, construction, utilities and ESCO guaranteed = $35.6M
- Reduction in carbon footprint
  - 205,210,232 lbs. of Carbon Dioxide (CO_2)
  - 307, 933 lbs. of Nitrogen Oxide (NOx)
  - 583, 539 lbs. of Sulfur Oxide (SOx)
- Missouri's ESCO 2.0 Project had a return on investment of less than two years.

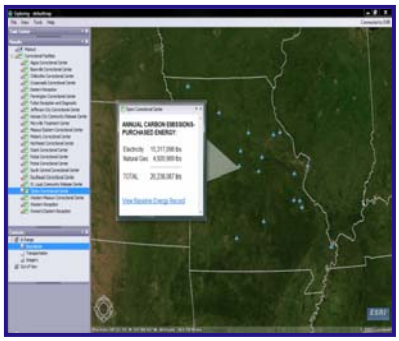
On average, one car produces 12,000 lbs of CO2 per year, which means, essentially, that the Missouri project took 17,000 cars off the road.

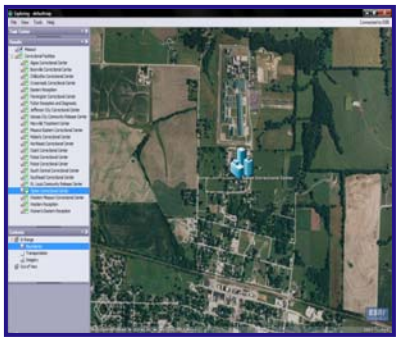
NEXT APPLICATION: GEOSPATIAL MAPPING

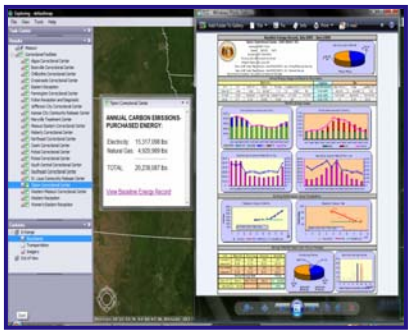
The TEAM CO-OP ESCO 2.0 solution is using ESRI's ArcGIS Server technology to incorporate mapping functionality with the Global Access Facilities Portal.

Integrating ArcGIS Server with the Portal will provide the following benefits:

- Ability to geospatially display and interact with existing facilities data in a map environment.
- More effectively manage operations and make critical decisions by integrating facilities data with geospatial data.
- Integrate with clients' existing geospatial (GIS) data for advanced analysis and display.
- Display facility data in both 2D and 3D.







TEAM CO-OP:

TEAM CO-OP represents industry leaders in the fields of construction, controls, real-estate, software, energy management, network engineering, collaborative solutions, computer-aided facilities management and business process management. That focus on realizing rapid and quantifiable cost savings in five areas: Utility Usage Cost Reporting, Enterprise Energy Management, Facilities Communications Infrastructure, Portal Collaboration and Business Process Management Implementation and Improvement.

For more information visit http://www.teamcoop.org/