U.S. Department of Energy, Washington, D.C.

Key Project Objectives:

- Streamline cost management of U.S. Department of Energy property assets
- Forecast long term replacement costs based upon RSMeans data
- Improve DOE reporting capabilities

Challenge

The U.S. Department of Energy (DOE) engaged Gordian's RSMeans data because they needed cost engineering of multiple DOE facilities to be able to accurately calculate the replacement value and sustainment costs for their facilities. The DOE sought a restructured and enhanced process, annual cost updates for the assets, the development of a ten year sustainment site plan and reporting on building costs to the Facilities Information Management System.

Solution

Our RSMeans data streamlines cost management assets of DOE property assets, forecasts long-term replacement costs and improves DOE reporting capabilities. At the onset of the project, we held a three-day workshop with DOE personnel to establish a process for developing building models and deciding on the model types required for the DOE Replacement Plant Value System. The DOE reviewed and compared our library of building models with the building types that they required and we ultimately created 75 building and structure models for the project.

To generate the Replacement Plan Value System (RPV), we created a Microsoft Excel-based system built in its own separate table that included three worksheets: Model Profile, Cost Summary and Model Estimate. Together, we developed a model parameter information worksheet based on our RSMeans data that became the basis for each model. The parameter worksheet included the model number, square footage, exterior skin system, structural system and common additives. The Cost Summary Worksheet included the model's calculated national average cost per square foot and work breakdown structure (WBS) percentage values.

These values are a percentage of the cost per square foot. The Model Estimate Worksheet included a Uniform at assemblies-based cost estimate of the appropriate RPV model and each estimate had assembly numbers, descriptions, quantities and calculated national average cost. Union wages were also used on all models. Our RSMeans data experts cost engineered each of the 68 building models and seven OSF's and house those models in our parametric modeling software program. This allows each DOE site office to edit and update their own building specifications, any of the generic building models and OSFs that are on their site.

Results

We used our RSMeans maintenance and repair cost data to map each building at the assembly level. This enables the DOE to generate sustainment costs for preventive maintenance, repair and replacement. We then rolled the data into a 10-year site plan that complies with OMB requirements. The DOE, once they update their models, can export the data to an internal Facilities Information Management System, which maintains the final Replacement Plant Value. The DOE continues to use our current and localized cost research to update building models and OSFs.

By using Gordian's RSMeans data, the Department of Energy can now forecast and budget replacement costs of total buildings and building systems quickly, efficiently and accurately. The DOE can also report auditable sustainment costs and fulfill OMB requirements for reporting on the ten-year site plan. The enhanced report system has been exceedingly well received from OMB as the DOE continues to rate highly for their reporting capabilities. The DOE performance metrics are on par with with other federal agencies that must report similar information to OMB.

About Gordian

Gordian is the world's leading provider of construction cost data, software and services for all phases of the construction lifecycle. From planning to design, procurement, construction and operations, Gordian delivers groundbreaking solutions to contractors, architects, engineers, educational institution stakeholders, facility owners and managers in the local, state and federal government, education, healthcare, manufacturing, insurance, legal, retail and other industries. With our proprietary data, along with our RSMeans and Sightlines data, we offer the largest collection of labor, material and equipment data and associated costs in the world with over 275,000 construction tasks with costs for all areas of construction. Gordian also offers the most widely used construction procurement information management software available anywhere and cutting-edge facilities intelligence and life cycle costing software to assess initial installed costs versus long-term facility costs and improve long-term asset performance. **For more information, visit www.gordian.com.**