

CASE STUDY

Capital Program Cost Controls at Los Angeles Department of Water & Power



The Los Angeles Department of Water & Power is one of the largest U.S. municipal utilities, serving millions of residents and businesses. The city relies upon a complex water system network to support its huge population growth. The LADWP therefore manages a corresponding portfolio of capital projects to maintain and expand the system. The utility's Water Engineering and Technical Services (WETS) Division uses their Capital Improvement Program Management System (CIPMS) to oversee and manage a ten-year capital water system program currently consisting of over 200 projects with a budget of \$6.5 billion dollars. The scope of the CIPMS encompasses budgeting, forecasting, performance and earned value management, scheduling, and resource management.

One of the primary purposes of the WETS CIPMS is to track the progress of 28 critical projects that are necessary to meet requirements enacted by California's Department of Public Health to improve the quality and safety of the state's water supply. Failure to complete the projects by the regulatory deadline could result in substantial fines and other penalties.

Facing a variety of challenges to performance management visibility and reporting inefficiencies, the organization decided to implement an upgrade of the aging CIPMS which had originally been deployed in 2001. The upgrade, using EcoSys EPC (Enterprise Planning & Controls) as its central hub, created an integration, reporting and analysis platform to address the demand for greater cost accountability and government reporting.

Company Profile

- Workforce of 9,500 employees
- Population Served of 4.1 million
- Annual Budget of \$4.25 billion
- Water System 10-year Capital Plan consists of a \$6.5 billion budget and over 200 capital projects

Challenges

- Lengthy monthly procedures were required in order to capture, process, and reconcile a multitude of data including: actual costs and resources, budgets, forecasts, and earned value. As a result, understanding project status was a tedious and time consuming process, and quality assurance and data validation was exceedingly difficult.
- The system contained no project performance metrics nor could it be adapted to handle multiple, large data sets that were needed for data analysis and to create what-if planning scenarios.
- Consistency was lacking in schedules, WBS and milestones across projects.
- Resource loading was overly complex costing many unnecessary labor hours.
- Report generation was manual and time consuming resulting in slow reaction to project demands and management requests.

Solutions

- Use EcoSys EPC as the capital planning and reporting hub between Primavera P6, the mainframe budget system, and the legacy general ledger system
- Standardize project structures, milestones, and coding to allow for easy comparisons against actual performance
- Automate data sharing of actuals, budgets, and schedules to eliminate manual and duplicate data entry
- Schedule and produce capital program quarterly reports automatically
- Use role-based dashboards for managers and engineers to provide immediate access to project information
- Enable quick revisions to project schedules and cash flow to determine true capital needs
- Deliver visibility into labor resource needs and imbalances, thus having the controls in place to shift project schedules to meet regulatory deadlines, available resources, etc.
- Develop performance metrics – CPI, SPI, ETC, ETA – for better project management

Benefits

- ✓ Substantial reduction in required labor for monthly data processing (reports generated in minutes rather than days)
- ✓ Immediate visibility into project performance facilitating better project management and control, and creating a “feedback loop” for identifying and correcting problems
- ✓ Flexible report builder combined with integrated data allowed WETS staff to respond quickly to information requests
- ✓ Reduction of data errors from manual extraction and transfer of data
- ✓ Hidden data quality issues were exposed and fixed
- ✓ The ability to analyze and compare all applicable data sets allowed for the development of a series of Earned Value reports for tracking project performance
- ✓ The ability to produce monthly audit reports to compare actual costs versus forecasted costs
- ✓ As a web-based solution, EPC required little incremental IT resources following deployment

With the successful implementation of EcoSys EPC, the LADWP's Water System is continuing to develop enhanced metrics for monitoring project performance as well as expanding executive level reporting. It is considering using EPC for Operations & Maintenance (O&M) Budgeting and is evaluating EPC for use by the Power System.

About EcoSys

EcoSys is the global standard for enterprise Project Controls software. Its easy-to-use web-based platform, EcoSys EPC, helps organizations worldwide plan and manage project portfolios, control project costs, and improve project performance.

EcoSys customers execute some of the world's largest projects and rely on EcoSys EPC to implement best practices for full lifecycle project controls including budgeting & forecasting, change management, contract management, progress measurement, performance and earned value management, capital planning, project portfolio management (PPM), and workforce planning.