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Big operations, spread across a big state, demanded a big CMMS solution.

The Lower Colorado River Authority (LCRA) is the largest publicly owned supplier of renewable energy in the State of Texas. It delivers electricity for Central Texas, develops water and wastewater utilities, and manages the water supply and environment in the lower Colorado basin. It also provides public recreation areas and supports community and economic development activities in 58 Texas counties.

To be specific, LCRA sells wholesale electricity to 40+ retail utilities (including cities and electric cooperatives) that serve more than one million people. It operates over 3300 miles of transmission lines, manages water supplies along a 600-mile stretch of the Texas Colorado River, and runs six hydroelectric dams. In addition, the organization owns approximately 16,000 acres of recreational lands along the Highland Lakes and Colorado River.

Generating annual revenues in excess of $600 million, LCRA counts on its 2100 employees to help provide reliable low-cost utilities and high-quality public services. This is a big operation with big maintenance management needs.

Organizationally, LCRA divides itself into five business unitsÐwholesale power; transmission and distribution; water and wastewater; community services; and business services groups. Over time, it recognized the need for a comprehensive software tool that could manage the diverse assets of each business unit, including all production, facility, and fleet assets. Important requirements included helping LCRA comply with government regulations and the ability to integrate with the organization's key financial software, PeopleSoft. Finally, the work force needed the solution to be a seamless, mobile one.

After considering these requirements, LCRA determined that upgrading its existing system would be more costly than implementing a new and better solution. Following extensive review , the organization selected Maximo, MRO Software's strategic asset-management solution, to implement throughout all five of its business units.

Seamless Integration

It was important for LCRA's chosen asset-management system to integrate to other critical business sys

The purchase requisition starts in Maximo, where purchase order information resides and inventory infor

LCRA also integrated Maximo to its scheduling solution, Primavera Enterprise (P3e). The implementatio

Representative benefits

LCRA's wholesale power group consists of two natural gas plants, one coal-fired plant, and 300,000 assets. Because the group lacked an entire view of its inventory, unnecessary parts and equipment would be ordered. With Maximo, this business unit now can take advantage of inventory-sharing, thereby reducing on-hand quantities. Since it can more easily determine obsolete items, the group has better control of its inventory. Today, more aware of its reorder points, it relies on its CMMS solution to automate the procurement process.

Like other LCRA business units, the wholesale power group uses filters inherent in the software solution's functionality to view the quantities of items in its storerooms. Prior to Maximo's implementation, the process was very time-consuming, with employees having to count items in bins, and manually enter purchase requisitions into the system. Now, they generate automatic requisitions based on set reorder points. This functionality has allowed the group to reallocate five employees to other mission-critical activities, resulting in conservatively-estimated, over-all annual salary savings of $250,000.

The water and wastewater group has set up all of its job plans in Maximo, and now tracks costs by operation and job plan. This group also has created specific work order types. For example, the subject of environment has been added as a work order type.

LCRA can further define and prioritize the type of work to be completed. Emergency work orders are flagged, and equipment is associated by work- order priority, making the entire process much more manageable.

Compliance is another vitally important issue for LCRA. It must comply with rules and regulations set by the Federal Energy Regulatory Commission (FERC). Scrubbers, or emission control devices, have to be placed on units in accordance to the year in which the units were built. Nothing can fall through the cracksÐfailure to comply would result in hefty fines and negative publicity. LCRA now depends on Maximo to track, permit, and generate a report documenting that the necessary project permits have been obtained.

Fleet assets present a significant management challenge for any organization and LCRA is no different. While the organization did not want to purchase a new transportation asset-management system, it knew that a change was sorely needed. With a fleet that encompasses more than 2000 vehicles, including bucket and pickup trucks, sedans, and dozers, managers had clear goals in mind. They wanted to move the operation from a mainframe system, be able to track warranty information, allow chargebacks to various departments—and reduce costs.

Today, all of LCRA's mobile equipment is being tracked in Maximo, making the fleet operation easier to manage. With this software suite, the organization has set up vehicles as tools and is charging each business unit for its vehicle use. Mileage rates and depreciation on vehicles also are accounted for. If, for instance, a maintenance bulldozer is used at a coal-fired plant or a car is used to go to a particular site, the number of miles is determined, and the unit is charged. Rates vary depending on the type of vehicle. Moreover, these fleet assets are now tracked and managed throughout their entire life cycle.

Mobile features enhance maintenance and accountability

LCRA knew whatever software solution it chose also needed to be a mobile one. It selected the Maximo Mobile Suite to reduce the amount of reactive work and to eliminate preventive maintenance backlogs. This version allows employees to use mobile computers to access asset, work, and parts information at the point of- performance.

Crews in the transmission and distribution group used to go out for a week at a time with a stack of printed work orders. Now they use 40 mobile devices and simply download information. If crew members see equipment that needs to be fixed, they can immediately create a work order and attend to the problem while in the field. They also can view the history on the asset so they know what has been done in the past. According to LCRA, duplicate data entry has been reduced and data integrity at the point-of-performance has been enhanced.

The organization also is making use of Maximo Mobile Auditor. This feature maintains accountability for critical assets and collects and enhances vital asset information. Employees inventory equipment and verify that data is entered into the system on an ongoing basis. This checks-and-balances approach keeps LCRA on top of pertinent information regarding equipment location and conditionÐand gives it far better control over its assets.

Strategic impact

LCRA takes a holistic view of its business, including its costs. Its move to Maximo has resulted in a strategic impact on the business. In short, the solution has enabled LCRA to reduce downtime and streamline operations. Being able to make better and more informed business decisions regarding critical assets is leading to savings in both time and money. Within LCRA, it is expected that this software solution will be driving process improvements and providing benefits to the organization for a long, long time.

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