

2004 Accomplishments

Annual plan identifies performance targets

We continued our focus on performance by publishing the FY 2004 Annual Performance Plan, that defines the specific ways we will accomplish our mission. Annual performance targets are based on industry-appropriate national, Federal and regional standards for reliability, information technology security levels, safety and other measurements. We developed progressive goals to quantify our effectiveness and to maintain the same historically high levels of performance that we've achieved in recent years.

Bonus goals track indicators

Employees achieved 100-percent payout for three of the five bonus goals—all relating to safety—during the FY 2004 program year. These goals have helped motivate employees to prevent injuries, lost work days and recordable motor vehicle accidents. While we didn't meet the reliability and cost containment goals, employee focus on safety paid off. Through the Bonus Goal Program, we continue to set realistic, but meaningful, goals to improve our business.

Career Progression Program kicks off

Western's Human Resources community introduced a new career development program in FY 2004 for employees in positions with limited advancement potential. This program will help participants develop skills and related competencies required for another position they are interested in while helping Western retain knowledge in critical job skills. The 12-month, self-directed program is for permanent, non-supervisory employees with a full performance grade level of GS-10 and below who have worked one year or more at Western.

CAT-1 line monitors measure real-time sag

Western's Sierra Nevada Region began monitoring four 230-kV transmission lines near Sacramento using CAT-1 line monitors, which measure the amount of sag in a transmission line segment in real time. This helps system operators ensure minimum safe clearance distances between a transmission line, other transmission lines or distribution lines and the ground. The monitoring will also help Western benchmark assumptions about line ratings and determine whether to increase a rating. Specifically, the CAT-1 system could be used to ensure Western's transmission lines are being used to their full capacity and are not overloaded during planned or unplanned outage conditions. Monitors are currently installed on the Hurley-to-Tracy lines No. 1 and 2, the Elverta-to-Hurley line No. 1 and the O'Banion-to-Elverta line No. 2.

Combined Federal Campaign raises thousands

During the 2004 Combined Federal Campaign, the Federal workplace charity drive, Western employees raised more than \$152,900 for local, national and international charities. The annual fund-raising drive conducted by Federal employees in their workplace each fall collectively raises millions of dollars that benefit thousands of non-profit charities at home and around the world.

Common OASIS provides one-stop shopping

In March 2004, Western's control areas joined a group of utilities offering transmission customers one-stop shopping through wesTTrans.net. Through this site, transmission shoppers can schedule transmission on paths owned by 14 utilities, including Western. WesTTrans.net is the official site for serving much of the Western Interconnection. This common Open Access Same Time Information System Web site lets market participants view and purchase transmission capacity electronically, which has improved the way industry buys and sells power by expanding availability of access to and efficient use of existing transmission capacity.

Construction continued on Path 15 Upgrade Project

Construction on the Path 15 Upgrade Project, which includes a new 500-kV transmission line between Los Banos and Gates substations in Central California, continued in FY 2004. The estimated \$306 million project—built under a unique public-private partnership—was designed to increase transfer capacity along the strategic transmission corridor in central California by 1,500 MW, or enough to power 1.5 million homes.

While preparing the land for the tower foundations in late December 2003 and mid-January 2004, Western's construction contractor uncovered horse, bird and tortoise bones in two ancient burial beds—one from the Early or Middle Miocene age, and one from the Late Miocene age. Before stringing transmission line, Western worked with the Bureau of Land Management to excavate the sites. The areas were also mapped for future recovery.

Cottonwood-Roseville line rerouted

Western began re-routing its Cottonwood-Roseville 230-kV line in May 2004 so the California Department of Transportation could construct a cloverleaf onramp and make other improvements to two highways north of Oroville, Calif. Because these highways intersect at such sharp angles, creating limited visibility for drivers, the site has been the scene of many accidents throughout the years. The project involved changing out lattice towers with tubular steel poles and moving the line about 200 yards so Caltrans could widen the highway.

Dakotas Wind Study kicked off

In September 2004, Western finalized the scope of the Dakotas Wind Transmission Study that will examine options to place 500 MW of wind generation in North Dakota and South Dakota. This study will analyze nonfirm transmission, assess transmission technology relative to new wind generation and examine how new wind generation in North and South Dakota would interconnect to the existing transmission system and be delivered into the market. In 2003, Congress authorized Western to undertake this study.

Desert test for composite conductor launched

In the second test segment of a cooperative effort involving Western, the Department of Energy and the 3M Company, DSW crews installed composite conductors on a 1,800-foot segment of the Liberty-Parker No. 2, 230-kV transmission line in early January 2004. The composite conductor, developed by the 3M Company, can carry up to three times the electricity as the same size conductor now in common use and is being tested to see how well it functions in the extreme desert climate. Western's first installation of this new conductor is on a one-mile test segment of the Jamestown-Fargo No. 1 230-kV line to see how well the conductor withstands the rigors of North Dakota wind and weather. Operating since October 2002, monitoring equipment measures line tension and sag and tracks temperature and wind conditions.

EPTC unveils new NERC-required courses

Western's Electric Power Training Center unveiled its new, week-long Real Time System Operations and Reliability Readiness class in April 2004. The course provides dispatchers with North American Electric Reliability Council-mandated training they need to be prepared for an emergency situation. This course, the first to meet NERC's training requirement, provides dispatchers with an overview of events that triggered the Aug. 14, 2003 blackout and other recent disturbances to help them prepare for future challenges.

Fiber optics installed

In a joint project with Tri-State Generation and Transmission Association, Western's Rocky Mountain crews worked together last spring on the 10-mile Cheyenne-Archer South 115-kV line to replace the existing analog backbone communications network in Wyoming with a digital system. The project includes replacing existing three-eighth inch ground wire with a .465-inch ground wire containing 48 embedded optical fibers. Once completed, the system will include a ring network from Cheyenne to Casper, then a linear segment up to the Cody area.

Flaming Gorge Dam Draft EIS released

Western worked with the Bureau of Reclamation in 2004 on an Environmental Impact Statement for the Flaming Gorge Dam to meet flow recommendations for endangered fish species in the Green River. Western is a cooperating agency on this EIS and is jointly consulting with Reclamation under the Endangered Species Act. A change in operation at Flaming Gorge Dam, as described in this EIS, will have adverse impacts to power generation. Western and Reclamation are helping to implement scientific studies that may lead to reduced impact to power.

Green achieved on President's Management Agenda

Western fully supports the President's Management Agenda to make the government more efficient. In FY 2004, we received a passing or "green" rating for the e-government Initiative Scorecard and green on all areas, including improved financial performance, budget and performance integration, competitive sourcing and human capital management.

MISO testing

Western's UGP marketing and operations staff participated in the Midwest Independent System Operator's Market Initiative in October and November 2003 in preparation for MISO to launch its wholesale energy market in the Midwest. The market is part of MISO's transition to performing all the functions of a regional transmission organization, or RTO. To buy and sell energy and serve our firm customers located within the MISO footprint, Western needs to become a MISO market participant.

Monitoring equipment prevents problem

Keeping up with the latest in system monitoring tools helped Western prevent a potentially explosive problem from developing within a transformer at the Gallegos Substation in Farmington, N.M., in November 2003. The 50,000-kVA transformer, which serves tribal loads in the area, was analyzed for dissolved gases during a routine test. When crews noticed an accumulation of explosive gases—indicating the possibility of a serious internal problem—they retested the unit using a tool developed in Canada called Duval's triangle. This tool uses an analysis technique that plots the concentration of three specific gases, then points to a possible cause, such as arcing or thermal hot spots within the transformer. The tool helped crews catch the problem before the transformer exploded, allowing crews to repair it and return it to service.

Native American customers doubled

Western worked throughout FY 2004 to implement bill crediting and benefits contracts for new Native American tribal customers. Fifty-two tribes in the Colorado River Storage Project Management Center's marketing territory and four tribes in the Rocky Mountain Region became eligible to receive the benefits of Federal power from Western beginning Oct. 1, 2004. These allocations bring economically affordable, environmentally friendly power into Native American communities.

NERC readiness audits completed

North American Electric Reliability Council Readiness Audits of Western's Area Upper Missouri East control area and a Western Electricity Coordinating Council compliance audit of the WAUM-West control area were conducted in August 2004. The audits determine the readiness of all North American reliability coordinators and control areas to ensure that system operators have the tools and processes to operate reliably. Initially, these audits are focusing on deficiencies identified by the Aug. 14, 2003, blackout investigation. The audits found Western's Upper Great Plains control areas have the appropriate reliability plans, procedures, tools and trained staff to respond to unplanned system events. The audit team did not find any significant operational problems, but Western is now developing corrective action plans to address the team's recommendations, including fully implementing the under frequency load-shedding program, improving alarm processing and establishing a fully redundant backup facility.

Nine regional Science Bowls sponsored

Providing service to the community and advancing math and science among high school students were the reasons Western staff showed their strong support of regional science bowl tournaments throughout Western's service area. From the South Dakota Regional in Rapid City to the Native American science bowl in Colorado Springs, Colo., and the Sacramento Regional competition in California, dedicated Western volunteers spent their weekends in February and March helping their communities promote education. The nine regional science bowls, included three that UGP staff helped with in Montana, North Dakota and South Dakota; two in Colorado where RM employees volunteered, including the Native American Science Bowl; one in Arizona that involved DSW employees; and three in the SN region in northern California.

Pick-Sloan Resource Pool allocations decided

Under the Energy Planning and Management Program in March 2004, Western's Upper Great Plains Region proposed allocations of up to 2,113 KW in summer and 3,072 KW in winter for three customers—the cities of Auburn and Pocahontas, Iowa, and Montana State University-Bozeman—from a resource pool of the Pick-Sloan Missouri Basin Program—Eastern Division's long-term marketable resource. In October 2004, the region planned to announce the final allocations, which become available Jan. 1, 2006.

Rapid City DC tie comes on line

The Rapid City DC tie became operational on Oct. 15, 2003. The tie is used primarily to import energy from the eastern grid to serve loads in Wyoming. Much of this new load growth is due to coal bed methane development that requires power to pump the coal bed water out and compress the methane gas. Western operates this 200-MW tie for owners Black Hills Power and Light and Basin Electric Power Cooperative. The Rapid City DC tie is one of six interconnections within the United States that join the eastern and western U.S. power grids.

SLCA/IP marketable resources allocated

Western announced in May 2004 its allocations of the post-2004 marketable resources from the Salt Lake City Area Integrated Projects developed under the Energy Planning and Management Program. Western evaluated hydrologic studies that indicated the need to reduce the energy component of the marketable resources for 20 years. Beginning in fiscal year 2005, the energy component will begin at its lowest level and then gradually increase over the next five years. In the fifth year, energy allocations level off and reach a level that remains constant through the remaining contracting period, subject to change only under contract terms. Firm electric service contracts between Western and its existing and new customers, which began with the October 2004 billing period, continue through September 2024.

Sierra Nevada Post-2004 Marketing Plan

Sierra Nevada Regional staff worked tirelessly to transition the region from operating under long-time contracts with Pacific Gas and Electric Company, which were set to expire on Dec. 31, 2004. Under these contracts, SN's Federal generation was integrated with PG&E's, so Western had to consider transmission as well as generation in its business planning effort. Under SN's new 2004 Marketing Plan, Western will give customers an allocation consisting of hourly net generation. Customers may supplement the hourly net generation with an optional "firming" purchase. To recognize new industry operating protocols, the marketing plan also allows customers to contract with SN for scheduling coordinator and/or portfolio management services.

Sierra Nevada sub-control area selected

In a decision announced July 13, 2004, Western selected the Sacramento Municipal Utility District to host sub-control area operations for the Sierra Nevada Region beginning Jan. 1, 2005. Western selected SMUD based on the five criteria identified through a public process. Western completed a nine-month public process to identify a preferred operating configuration for use after its existing contracts with Pacific Gas and Electric Company expire Dec. 31, 2004. As a sub-control area, Western will schedule power deliveries for Project Use loads and customers directly connected to our transmission system and in other control areas. Western will match generation and load, provide reserves and frequency support to meet reliability criteria, and submit generation schedules to the host control area. Western will manage net power flows at the sub-control area interconnection points.

Thailand hosts Western trainers

From July 27 to 30, 2004 Electric Power Training Center instructors **Charlie Gray** and **Brad Nickell** trained about 30 engineers from the Metropolitan Electric Authority of Thailand, in Bangkok, Thailand, in some of the finer points of power system operations. The challenge was to convey to them the concepts and theories of power system operation and control.

Western garners Small Business program awards

Western's Small Business Program was honored for its exceptional efforts for supporting small businesses. The Secretary of Energy presented **Judy Madsen**, Western's Small Business Program manager, the award for outstanding achievements in socioeconomic goals. The Small Business Administration's Region VIII Administrator Elton Ringsak presented two awards—one to Western for continuously supporting the small business community and one to **Amy Wright**, RM's small and disadvantaged business utilization specialist, for her contribution to the Denver Federal Acquisition Council's procurement Web site.

Western receives Human Capital Breakthrough Award

DOE presented a Human Capital Breakthrough Award to Western at the 2004 DOE Human Resources and EEO Diversity Symposium July 1, 2004. The Human Capital Breakthrough Award was created specifically to recognize Western for raising awareness and providing an understanding of human capital issues, tools and strategies.

Williston-to-Wolf Point Upgrade continues

The Williston-to-Wolf Point Upgrade project along Highway 2 in northwestern North Dakota took about four weeks to finish upgrading the second phase for a total of 20 miles completed so far. This is the second year of the 10-year line upgrade plan. The project will replace the original 115-kV line built in 1946 with a new 230-kV line, including new structures, conductor and fiber optic overhead ground wire.

45-day process accelerates hiring

Western began implementing a new 45-day hiring model in FY 2004 to accelerate the time it takes to get a new hire on board. The 45 working days include five days each to screen, rate and rank applications and prepare certificates; up to five days to review applications and up to 15 days to schedule and conduct interviews. It also includes up to five days to check references, two days to make selections and up to three days to extend job offers. In some cases, these new guidelines cut the current process in half, especially when it's delayed by scheduling conflicts among interview panel participants or by delays in checking references. ■