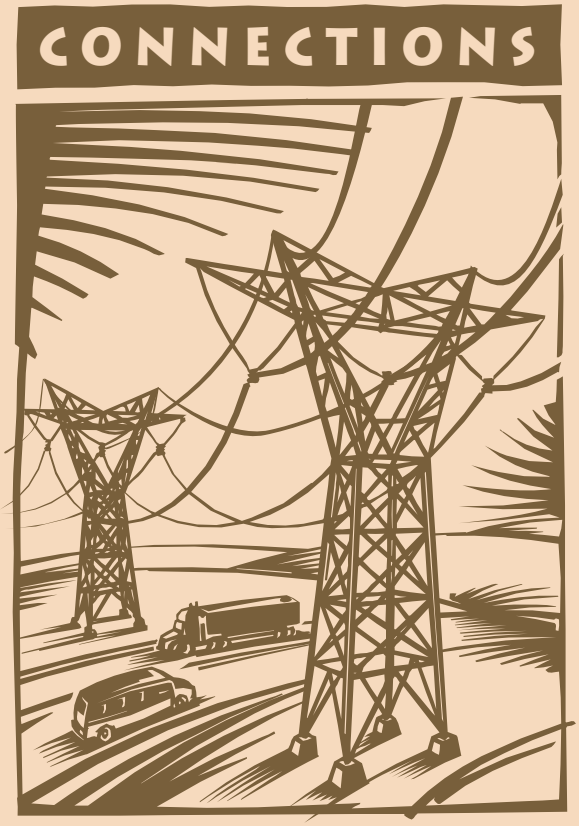

1998 ANNUAL REPORT

Western
AREA POWER
ADMINISTRATION

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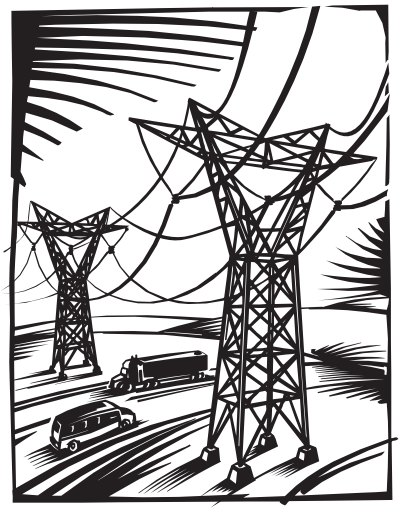

CONNECTIONS

This 21st Annual Report of the Western Area Power Administration offers a brief look at how Western is connected to its history and its future through the very lines that deliver the hydropower it markets across the West.

Just as the electric utility industry undergoes changes in its structure to enable it to deliver reliable power at lower prices, so has Western undertaken changes to continue to meet our mission of delivering clean, reliable, renewable Federal hydropower at the lowest possible cost.

As more diverse competitors enter the marketplace, Western is ready to meet the needs of its customers by being efficient, resourceful and flexible in ways never contemplated a decade ago. Against this backdrop of change and opportunity, Western has used its resources to transform itself from being a premier transmission construction agency at our birth into a top-rank power marketing and transmission organization 21 years later.

We've maintained our focus on long-range planning to identify and prioritize major capital expenditures to ensure we, as part of the Federal power complex, are able to meet the pressures of the new marketplace. Our future will be determined by our interactions with and responses to the needs of our customers and others in the electric power industry as well as Congress and the Department of Energy. We look forward to meeting these challenges.

We offer this Fiscal Year 1998 Annual Report as a chronicle of where we've come from and a glimpse of where we're headed.

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WESTERN AT A GLANCE

Marketing profile

	1998	1997
Firm energy revenue	$578 million	$604 million
Nonfirm energy revenue	$142 million	$136 million
Total energy sales	45.0 billion kWh	45.8 billion kWh
Composite firm rate	15.64 mills	16.62 mills
Coincident peak load (est.)	6,667 MW	6,871 MW

Customer profile

	Number	Sales (billion kWh)	Energy Revenue (million $)
Municipalities	285	10.9	174.1
Cooperatives	50	9.0	154.0
Public utility districts	18	4.3	86.6
Federal agencies	54	2.1	36.0
State agencies	53	11.3	153.7
Irrigation districts	48	0.7	8.2
Investor-owned utilities	31	4.7	80.5
Power marketers	21	0.5	10.5
Project use (Reclamation)	76	1.5	14.6
Firm customers	566	37.0	577.8
Nonfirm customers	70 [1]	8.0	142.0
Total customers	636	45.0	719.8

[1] Excludes 93 firm power customers who also purchased nonfirm power.

IRP profile

IRPs submitted	178
Small customer plans submitted	122
Customers and members represented	699

Repayment profile

Principal repaid in FY 1998	$136.0 million
Total investment	$8.3 billion
Total repaid	$2.5 billion

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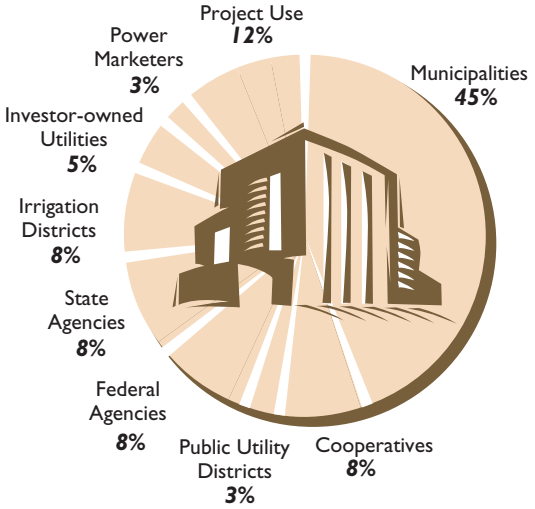
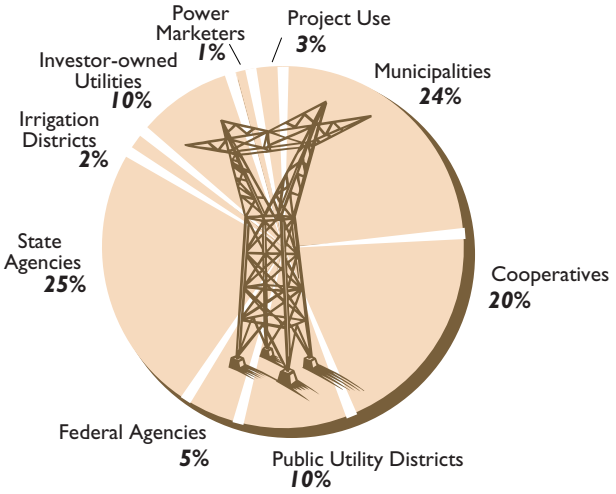
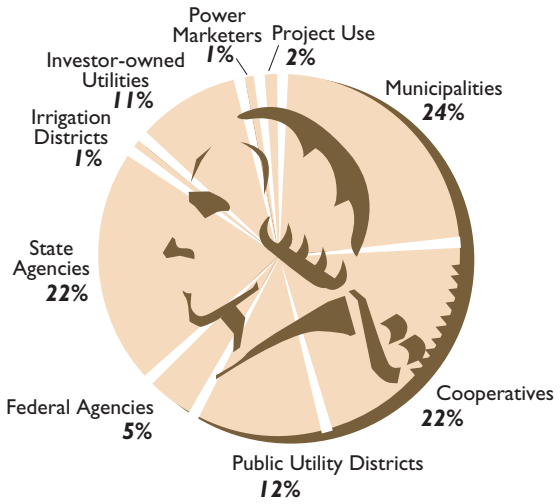
Customer mix



Where our energy goes (kWh)



Where our revenues come from ($)



Financial profile (in thousands)

Assets	$ 4,065,674
Liabilities	$ 355,092
Gross operating revenues	$ 864,938
Sales of electric power	$ 700,355
Other operating income	$ 164,583
Operating expenses	$ 703,360
Operation and maintenance expense	$ 245,398
Administration and general expense	$ 42,884
Purchased power expense	$ 152,978
Purchased transmission expense	$ 43,509
Depreciation	$ 218,591
Net interest expense	$ 188,225

Resource profile

Hydro powerplants	55
Thermal powerplants	1
Total powerplants	56
Maximum operating capability	10,605 MW
Total units	181
Net generation	41,447 GWh
Purchased power	5.96 GWh

Transmission system profile

Communication sites	359
Substations	258
Transmission lines	16,854 miles
Transformer capacity	26,442,498 kVa

Employee profile

Federal	1,290
Contractor	220

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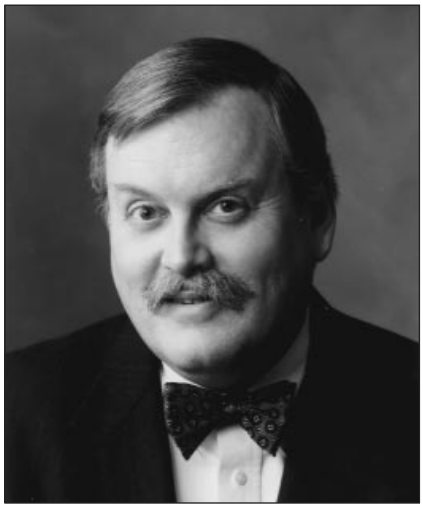
FROM THE ADMINISTRATOR



The Honorable Bill Richardson
Secretary of Energy
Washington, D.C. 20585

Dear Mr. Secretary,

I am pleased to submit our Fiscal Year 1998 Annual Report, which reflects both our accomplishments and the challenges we are meeting in response to changes in government, operational requirements and the rapid deregulation of the electric utility industry.

Maintaining and enhancing the reliability of our nearly 17,000 miles of Federal transmission lines that criss-cross the western United States is a basic element in fulfilling our mission to market and deliver reliable cost-based hydroelectric power. The Federal transmission system, of which we are the stewards, is a vital component of the interconnected electric power system that fuels the U.S. economy and contributes to the competitiveness of American business and industry.

We are working together with power and transmission customers and suppliers, Department officials, industry organizations, neighboring systems and others in the electricity market to create the rules of the road in the newly restructured utility industry for the benefit of all Americans. We are complying with Federal Energy Regulatory Commission Orders No. 888 and 889 as we separate our transmission and operations functions from our power marketing functions and as we continue our involvement with and leadership in newly formed transmission and reliability organizations in our 15-state service territory.

This report recognizes our commitment to meet the responsibilities and contractual obligations we have with our more than 600 wholesale power customers. It also reports our success in repaying the Federal investment in power facilities, maximizing the value of Federal resources in a competitive energy arena and operating in a manner that minimizes impacts to the nation's environment.

We saw average water runoff across most of our service area during FY 1998, resulting in power sales of more than 45 billion kilowatthours of energy. Of the $865 million in gross operating revenue, we used $485 million for cash operating expenses and $188 million to pay interest expenses to the U.S. Treasury Department on the Federal investment. We also repaid $136 million in principal for the investment in power facilities.

We are taking steps to ensure our system will continue to work on Jan. 1, 2000, and thereafter. We will be there to support the interconnected power system and avoid potential power disruptions related to clock rollover and computer programming limitations. Electricity connects our nation and our world. In the early days of the century, newly strung power lines connected homes and businesses in small towns and large cities to each other. Today, the interconnected power transmission network binds us even closer together and underpins our national economy.

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Keeping the lights on isn't the only challenge we face in the coming year. We are meeting the challenges of budget reductions while maintaining the power system reliability upon which our customers have come to depend. We've enhanced workforce productivity to improve a wide range of service to our customers. In FY 1999, we will continue our efforts to seek out shared service opportunities to further reduce overhead expenses and maintain stable power rates.

These challenges are significant. They demand resources, talent and time. And they demand decisions that benefit all Americans who receive Federal hydropower. Working together with customers, suppliers, industry organizations, neighboring systems and others in the power market, we have the resources and the talent to accomplish much. Working together, we can make these solutions reality. We must bring these solutions to bear as we work together to forge a utility industry that will power America seamlessly into the 21st century.

I look forward to our continued, shared progress and success.

Michael S. Hacskaylo
Administrator

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WESTERN PROFILE

Western Area Power Administration annually markets and transmits approximately 10,000 megawatts of power from 55 hydropower plants. We sell about 40 percent of regional hydroelectric generation. Western also markets the United States' 547-MW entitlement from the coal-fired Navajo Generating Station near Page, Ariz.

Western's service area covers 1.3 million square miles in 15 states. We sell power to 636 wholesale customers including 285 municipalities, 50 cooperatives, 18 public utility and 48 irrigation districts, 54 Federal and 53 state agencies, 31 investor-owned utilities (only one of which purchases firm power from Western), 21 marketers, and 76 Reclamation customers that purchase project use power. They, in turn, provide retail electric service to millions of consumers in these central and western states: Arizona, California, Colorado, Iowa, Kansas, Minnesota, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Texas, Utah and Wyoming.

Western operates and maintains an extensive, integrated and complex high-voltage power transmission system to deliver power to our customers. Using this 16,854 circuit-mile Federal transmission system, Western markets and delivers reliable electric power to most of the western half of the United States.

Except for the Central Arizona Project's Navajo generation, these power facilities are part of 11 rate-setting systems. These are made up of 14 multipurpose water resource projects and one transmission project. The systems include Western's transmission facilities and power generation facilities owned and operated primarily by the U.S. Bureau of Reclamation, the U.S. Army Corps of Engineers and the International Boundary and Water Commission.

Western and the generation entities are separately managed and financed. Each project maintains a separate financial system and records. Each entity operates and maintains its portion of the multipurpose projects and allocates its operating expenses among the projects. Costs are allocated among individual project purposes. These purposes can include navigation, irrigation, flood control, power, fish and wildlife, recreation and municipal and industrial water supply. Western's financial statements include only the costs assigned to power for repayment.

Power sales, transmission operations and maintenance and engineering services for our system are accomplished by our employees at 51 duty stations located throughout our service area. These include our Corporate Services Office in Golden, Colo., and four Customer Service Regions with offices in Billings, Mont., Loveland, Colo., Phoenix, Ariz., and Folsom, Calif. We also market power from our Customer Service Center in Salt Lake City, Utah. System operations and maintenance are managed at offices in Bismarck, N.D., Fort Peck, Mont., Huron, S.D., and Watertown, S.D.

Legislative authority

Congress established Western on Dec. 21, 1977, under Section 302 of the Department of Energy Organization Act. Under this statute, power marketing responsibilities and the transmission system assets previously managed by Reclamation were transferred to Western.

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Financing methods

Our power marketing program includes three principal activities: operation and maintenance; purchase power and wheeling; and construction and rehabilitation. Each year, Congress appropriates funds to finance expenses for most of our power systems including the Pick-Sloan Missouri Basin Program, Central Valley Project, Parker-Davis Project and the Pacific Northwest-Pacific Southwest Intertie Project.

Our appropriation also includes an annual contribution for the Utah Reclamation Mitigation and Conservation Account as specified in the Reclamation Projects Authorization and Adjustment Act of 1992. Existing legislation allows for the Colorado River Storage, Central Arizona, Seedskadee, Dolores and Fort Peck projects to operate with power receipts through a revolving fund. In accordance with the Foreign Relations Authorization Act, FY 94 and FY 95, a separate appropriation is provided to operate and maintain Falcon and Amistad project facilities for the International Boundary and Water Commission.

While Western receives annual appropriations to finance our operations, power rates are set to recover all costs associated with our activities, as well as repay the Federal investment in power facilities, with interest, and certain costs assigned to power for repayment such as aid to irrigation development.

We currently finance a significant amount (69 percent in FY 98) of our purchase power and wheeling program through non-appropriated, alternative financing methods, such as bill crediting, net billing, reimbursements and non-appropriation transfers.

Boulder Canyon Project is financed through permanent appropriations of receipt from the Colorado River Dam Fund. Parker-Davis Project and Central Valley Project customers also provide advance funding to finance certain power system expenses and capital improvements, respectively. We also do work for other Federal and non-Federal organizations under authority of the Economy Act, the Contributed Funds Act and the Interior Department Appropriations Act of 1928.

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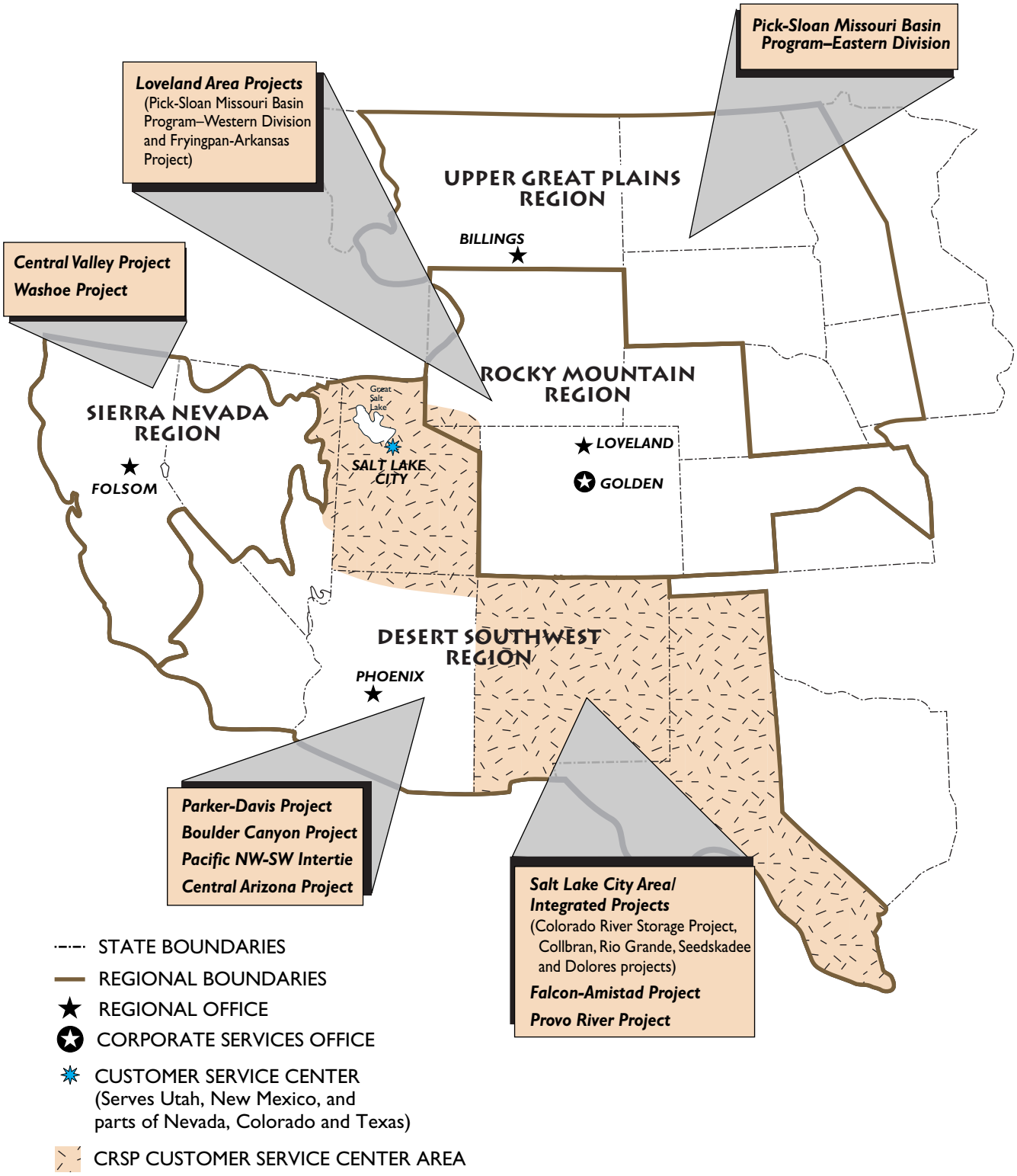
CUSTOMER SERVICE AREAS



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CONNECTIONS

From the past and to the future

When Congress created the Department of Energy in 1977, and with it Western Area Power Administration, images of the Arab oil embargo, skyrocketing fuel prices and long gasoline lines were fresh in the nation's memory. For the first time in our country's history, becoming self-sufficient in meeting our energy needs was a national priority.

Western was created to manage the power marketing and transmission responsibilities previously managed by the Bureau of Reclamation. As dams to provide flood control, irrigation and navigation were built across the western United States, power was found to be a beneficial added purpose. Hydropower not only powered the irrigation pumps that made the desert bloom, it brought the benefits of electricity to sparsely populated sections of the nation, long after many urban settings had been electrified. Revenues from selling hydropower to farmers, ranchers, townfolk and others—above that needed for Federal project irrigation use—could be used to repay the Federal government's investment in building and operating the power and irrigation facilities.

To get electricity from the powerplants housing turbines that generate this clean, renewable energy from falling water to where it was needed, high-voltage transmission lines were strung across desolate salt flats, rugged mountains and rolling plains dotted with farm houses and small towns. Today, Western operates and maintains nearly 17,000 miles of transmission lines, 258 substations and numerous other electrical and communication facilities across our 1.3 million square-mile service territory.

One of the earliest power projects in Western's service area remains one of the biggest. The Boulder Canyon Project was authorized by Congress in 1928. Hoover Powerplant, with 19 generating units capable of producing 4.5 billion kilowatthours of power each year, began operating in 1936. Each year, power from Hoover serves the electrical needs of nearly 8 million people in Arizona, California and Nevada. Boulder Canyon Project power is sold to 15 wholesale customers by Western's Desert Southwest Region.

Construction takes place near Pahrump, Nev., on Valley Electric Association's 230-kV transmission line which connects to Western's Mead Substation.

Power generated from Western's Boulder Canyon Project benefits customers such as Valley Electric Association, a subcontractor of the Colorado River Commission of Nevada. Valley, a member-owned electric utility, has been providing electric services for approximately 35 years. Traditionally serving a rural and agricultural area, Valley is currently experiencing

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Former Valley Electric Association board member Oakie Spears throws the switch to energize the 230-kV line.

explosive residential load growth. Much of the residential growth is occurring around Pahrump, Nev., an unincorporated community about 60 miles west of Las Vegas. Pahrump has become attractive for retirees moving to the area, Las Vegas workers looking for a rural lifestyle and those interested in the town's expanding infrastructure. Unlike many municipalities, Valley cannot restrict growth in its service area and has faced the challenge of meeting increased loads with limited resources.

To stay competitive, Valley recently added 85 miles of 230-kV transmission line. Western worked with Valley to meet growing demand by providing a critical interconnection using two new breakers at Mead Substation. The interconnection linked Valley's new transmission line from Pahrump to Western's transmission system.

Lou Holveck, Valley Electric Association general manager, explained the importance of completing the 230-kV line. "The timing of this line was critical. Valley would not have been able to serve load growth in the Pahrump area without it. Western met all of its commitments and worked on an accelerated schedule to help us complete this important project." In addition to increasing transmission capability, the line will also help reduce Valley's line losses.

Customers like Valley face a future that includes growth and other changes such as restructuring. Western will continue to support these customers as opportunities arise.

Also marketed by the DSW Region, power from the Parker-Davis Project is transmitted across more than 1,500 miles of transmission line in Arizona, southern Nevada and along the Colorado River in California. Parker Dam and Powerplant was authorized by Congress in 1936 and began operating in 1942. Davis Dam was authorized in 1939, but World War II delayed construction, so the powerplant didn't begin commercial operation until 1953. Twenty-six preference customers purchase Parker-Davis Project firm power.

Municipal customers served by the Parker-Davis Project, such as the city of Mesa, face a challenging future. Originally a small farming community, in the post-World War II era Mesa experienced extensive population growth. Now Arizona's third largest city, Mesa has more than 335,000 residents. However, Mesa's electric utility serves only about 13,000 residential customers and 2,300 commercial customers. Even though the city's residential base has grown, its electric utility service territory remains fixed at about six square miles. The rest of the city is served by the Salt River Project.

With the future possibility of retail competition, Mesa's electric utility must find ways to

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stay competitive and provide reliable service to its customers. To do so, Mesa has worked with Western to create an integrated resource plan. This plan helps the utility prepare for upcoming changes while allowing it to stay flexible if the need should arise. Reviewed by Western employees, the resource plan allows Mesa to develop planning assumptions, identify options, devise useful methods to improve its service, and take action. For example, the city faces stringent air quality standards in Maricopa County. As part of its five-year action plan, Mesa will address such environmental concerns. With assistance from DOE, Mesa plans to install a 200-kW fuel cell to provide power to its new offices. Fuel cells produce undetectable emissions and therefore provide an environmentally friendly alternative for meeting future electric capacity needs.

In addition to integrated resource planning, Western has worked with Mesa and other customers to manage resources by aggregating resource and load requirements. These aggregated requirements are then passed to Western so the energy can be scheduled for delivery. Jerry Brower, of the city of Mesa, described the benefit of Western's work in this area: "This partnership has been very successful, saving us thousands of dollars in operating costs compared to what we had paid in the past. The city of Mesa has been very encouraged by resource management so far." By working with customers on resource management, Western has created an opportunity for its customers to improve service, reduce costs and meet future challenges.

A local team plays baseball at Fitch Park, winter home of the Chicago Cubs. Western provides power for the park through the City of Mesa's electric utility.

The Central Valley Project in California covers an area 400 miles long by 45 miles wide, comprising almost one-third of California. It was authorized in 1937 to bring irrigation and flood control to California's Central Valley. The project features 38 generating units in 10 powerplants, five pumping plants and 615 miles of canals. After meeting its irrigation load, CVP firm power serves the annual electrical needs of 650,000 Californians. It's sold by Western's Sierra Nevada Region to 80 preference customers across northern and central California.

As well as providing electricity to municipalities and irrigation districts, Western power supports research in areas such as lasers, high-energy physics and supercomputing at DOE national laboratories in California. Western supplies power for Lawrence Livermore National Laboratory in Livermore; Lawrence Berkeley National Laboratory in Berkeley; and the Stanford Linear Accelerator Center in Palo Alto.

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"Western has been working in partnership with DOE Oakland Operations Office and the national laboratories for many years to provide a reliable, economical source of power to support the vital scientific research that's conducted at the labs," said Jerry Toenyes, Western's Sierra Nevada regional manager.

Directors of the national laboratories say Western power plays a crucial role. The success of the programs at the three Northern California national laboratories depends vitally on the availability of relatively inexpensive electric power. Low power costs have been achieved in large part from the availability of CVP Federal preference power. For example, the laboratories' supply relationship with Western is estimated to have saved $22.5 million for the 12 months that ended May 1998. "Without Western, power costs at the laboratories would have been roughly double what they actually were," a letter from the three lab directors to Energy Secretary Bill Richardson said.

In addition to delivering CVP power, Western has worked with the labs to help them get access to Northwest hydropower, upgrade equipment to improve reliability and adapt operations to meet the demands of the restructured utility industry in California.

"U.S.Department of Energy laboratories have been able to save taxpayers a very significant amount of money thanks to the partnership we have established with Western power," said Jim Turner, DOE's Oakland Operations Office manager. His office has oversight responsibility for the labs. "The Department of Energy laboratories have been able to better carry out their crucial scientific missions with the money they saved on Western power. Western's technical expertise in electrical systems also has provided a valuable resource," Turner added.

This cooperative venture began with a 1983 agreement providing for delivery of CVP power over Pacific Gas & Electric Company's transmission system. The following year, Congress authorized Western to participate in what is now known as the California-Oregon Transmission Project, a 500-kV line connecting California and the Pacific Northwest. A 1998 agreement by Western, the Department of Energy and PG&E allows the three Bay Area labs to have access to Northwest power using the COTP and PG&E transmission systems. Access to power delivered over the COTP previously was limited to

Sierra Nevada Regional Manager Jerry Toenyes joins Will Jones of Pacific Gas & Electric Company and David Johnson of Lawrence Livermore National Laboratory at the dedication of the new LLNL substation.

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Lawrence Livermore, the only lab with a direct connection to the Western system.

Also in 1998, a parallel connection to the Western and PG&E systems was completed for Lawrence Livermore, which provides for uninterrupted power in the event of an outage by either Western or PG&E. Western employees from linemen to engineers worked on the DOE-funded project. They provided support in relay coordination and communications design, removed old poles and installed new ones to relocate a 115-kV line and installed a 115-kV isolation switch.

Western also is working on an agreement to act as scheduling coordinator for the labs beginning in 1999. Under restructuring in California, scheduling coordinators match load and supply for customers and communicate that information to the California Independent System Operator. As scheduling coordinator, Western can schedule power to meet the labs' combined loads from several sources, thus further reducing power costs.

Serving the Great Basin states, Western's Colorado River Storage Project Customer Service Center markets CRSP power and power from several small projects including Collbran, Dolores, Rio Grande and Seedskadee. This power is bundled together and sold as Salt Lake City Area/Integrated Projects power. CRSP was authorized in 1956. The project's main facilities at Glen Canyon Dam and Powerplant began commercial operation in 1964. Average annual generation of 5 billion kWh is transmitted to customers in seven states across more than 4,000 miles of high-voltage transmission lines. One hundred and twenty-five preference customers purchase SLCA/IP power, including the Navajo Tribal Utility Agency.

NAPI Manager LoRenzo Bates hopes the economics are favorable, with the help of Western power, to bring a potato processing plant to the Four Corners Region.

Agreements among Western, other Federal agencies, and the Navajo Nation are helping to promote economic development in the Four Corners Region. "The U. S. Bureau of Reclamation reserved 87 MW for the Navajo Indian Irrigation Project through an earlier agreement among Western, Reclamation, the Bureau of Indian Affairs and the Navajo Agricultural Products Industry," said John Delgado, a contracts public utilities spe-

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Navajo Nation President Milton Bluehouse, left, U.S. Senator Jeff Bingaman and NAPI Manager LoRenzo Bates examine potatoes that may be processed in coming years, creating jobs in the Four Corners Region.

cialist, at Western's CRSP Customer Service Center.

The full allocation wasn't needed for irrigation pumping, however. So, with work by parties involved and support from U.S. Sen. Jeff Bingaman of New Mexico, an agreement was reached to provide some of the power to process potatoes grown by the Navajos.

The original plan for this irrigation project was to run water from Navajo Dam through canals, then lift it into tanks to ensure adequate elevation to flood-irrigate crops, explained Malcolm Dalton, Navajo Tribal Utility Authority manager. Since farmers were using center-pivot sprinklers rather than flood irrigating due to their greater efficiency, only about one-third of the CRSP power allocation was needed for irrigation use.

NIIP covers 60,000 acres where Navajo farmers raise a variety of crops including beans, potatoes, corn, alfalfa and pumpkins, as well as cattle. Among the facilities managed and developed by NAPI are a bean processing plant and an alfalfa mill. NAPI has also sought new ways to add value to the agricultural production. "We want to get on the processing end of it," said LoRenzo Bates, NAPI manager.

With that in mind, the Navajo Nation entered into negotiations with Lamb-Weston, a private firm, to build a french fry plant, but a key to the project was power costs. Lamb-Weston agreed to provide equipment and operate the plant, but the Nation was responsible for the infrastructure. At NTUA's regular rates, the project wasn't economically feasible. However, if Western power could be used to operate the plant, the economics became more favorable.

When interpretation of the legislation to allow using CRSP power for purposes other than irrigation ran into resistance, Navajo Nation officials contacted Sen. Bingaman for help. The senator asked the agencies to find a way to allow the Nation to use a portion of the Western allocation to power the plant. The Navajo, Western, Reclamation and the Bureau of Indian Affairs agreed upon a definition of "power uses" that allowed for allocating power for "on-farm uses and other municipal and industrial uses" by NAPI.

The plant, which will employ up to 450 people, will aid the local economy significantly. The unemployment rate for the Navajo Nation is 52 percent, Bates explained. If the french fry plant is developed as planned, construction should start in the fall of 1999 and take about 1½ years to complete, he concluded.

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Loveland Area Projects power is sold to 31 preference customers in Colorado, Kansas, Nebraska and Wyoming. It includes resources from the Western Division of the Pick-Sloan Missouri Basin Program and the Fryingpan-Arkansas Project. Power from 20 powerplants housing 39 units have a capacity of more than 850 MW of power. The first Western Division powerplant, Guernsey, came on line in 1927. The newest addition is the Fry-Ark's Mount Elbert plant, which began commercial operation in 1981. Western's RM Region transmits LAP power across more than 3,400 miles of transmission line to customers such as the Wyoming Municipal Power Agency.

Under a new agreement, Western's Rocky Mountain Region will perform a variety of services for WMPA. "The contract authorizes us to act as their agent for scheduling power. This gives us the authority to do whatever it takes to meet their load," said Ron Steinbach, Power Marketing manager at Western's RM Region.

Larry LaMaack, WMPA executive director, left, and Larry Shiao, Western hydraulic engineer, discuss scheduling services Western provides for WMPA.

Western monitors reserves, does day-to-day scheduling and arranges for purchases under contracts previously reached between suppliers and WMPA. The agreement was based on similar arrangements between customers and Western's DSW Region, Steinbach said.

Reliability issues were a "major driver" in the agreement. Under the new Western Systems Coordinating Council Reliability Management System, utilities face significant fines if their reserves drop below required levels, as well as the cost of acquiring additional power to meet reserve requirements. "You've got to pay attention to that or the fines are substantial," he said.

The new arrangement is a result of changes in the electric utility industry, said Larry LaMaack, WMPA executive director. "It's a natural evolution of things," he said. As part of change, WMPA had to find a way to perform services such as scheduling that formerly had been performed by Western and Basin Electric Power Cooperative through operations of the Missouri Basin Power Project.

WMPA couldn't do after-the-fact accounting for reserves and couldn't economically justify setting up a 24-hour dispatch center, so began looking at other alternatives. "We

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couldn't be without representatives on a real-time basis," LaMaack added, due to the potential for significant costs due to reserve requirements.

Western already had meters at WMPA delivery points and the existing dispatch operation could accommodate WMPA's needs, so using Western seemed a natural match. "They worked with us very well to come up with an agreement," LaMaack said. "The transition for the most part has gone very well."

Western's largest project is the Eastern Division of the Pick-Sloan Missouri Basin Program. Authorized by Congress in 1944, the Eastern Division includes seven dams and powerplants on the main stem of the Missouri River. Transmitting power across 7,750 miles of high-voltage transmission lines and through nearly 100 substations, Western's Upper Great Plains Region delivers power to more than 250 preference customers. The first Eastern Division powerplant was Garrison, which came online in 1944. The newest facility is Yellowtail, which began commercial operation in 1966. UGP staff operate and maintain this extensive electrical system on both sides of the Eastern and Western Electrical Separation to provide reliable electric service to customers like East River Electric Power Cooperative.

Dave Wolf, left, Basin Electric; Mark Weismantel, East River; and Ray Kub, Western; are working on joint use of microwave facilities to reduce costs through improved efficiency.

A partnership among Western, Basin Electric and East River providing joint use of microwave facilities is expected to save money for ratepayers in Western's UGP Region.

The three agencies historically have had separate communications systems, said Ray Kub, UGP communications engineer. These systems are used for operational control of the regional power system and transmit everything from power plant control to voice communication. Except for the telephone lines to the local central offices "they handle essentially all the communication Western does," he said.

When utilities installed their analog microwave systems years ago they did so separately, even placing individual towers at the same site. "Every organization was used to doing its own thing," he said. When utilities began planning to convert from analog to digital, staff discussed sharing facilities. "We wanted to save the ratepayers money, so we got together to combine facilities into one system," Kub noted.

Basin began its conversion from analog to digital in 1994, said Dave Schmitz, engineering manager for Basin. At the time, East River and Western weren't

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ready to make the move, but Basin felt it needed to go ahead since its system dated back to 1974, Schmitz said.

When East River was ready to convert, it faced some time constraints because the Federal Communications Commission had auctioned off some frequencies used by the utility, said Mark Weismantel, East River's Telecommunications manager. East River had a limited amount of time to negotiate an agreement with the new owners to minimize the impact of the change. The cooperative looked at numerous alternatives in replacing the system including fiber optics, digital microwave or some combination of technologies. A shared system also was one of the alternatives studied and this concept was used in developing the agreement.

The project will cost approximately $15 million and will require replacing almost all the previously installed microwave equipment. "About all we're using in the analog system are the antennas towers and the buildings, and we're changing some of those," Kub said.

Through the joint operation, Western will be able to reduce the number of its sites from 25 to 14 for a significant cost savings. Basin is reducing its sites from 24 to 14. East River, with a 36,000-square-mile territory, has 45 sites, said Weismantel. The joint system will allow East River to eliminate about 10 of its sites and reduce future expenses. "A lot of the projected savings are in ongoing maintenance," he said. "There's significant savings in construction and even more savings in operations."

Site upgrades for East River and Western are scheduled to be finished by October 1999. Basin will make channels on its system available to Western and East River, and in return will have space on the other systems, so each of the three parties will have improved coverage over its own service area.

Although Basin had already upgraded its system, the arrangement provides some benefit to the coop. "It still makes good economic sense to try to integrate the system," Schmitz said. Basin is able to recover part of its investment in the system from the other two participants and hold down future expenses. "There's ongoing savings in operations and maintenance," he said.

Basin, on behalf of the Missouri Basin Power Project, previously reached a similar agreement with Western's RM Region and Tri-State Generation & Transmission Association to share facilities in Wyoming, Nebraska and Colorado. For Western, these agreements have been a new way to do business. "We're certainly working closer with the customers than we have in the past," Kub said.

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Current and future outlook

Preparing for operations in a restructured electric utility industry has been the focus of many initiatives at Western. Our agency Transformation activities resulted in several reorganizations, streamlined functions and greater decentralization. Western's new transmission tariff is one example of how we do business has changed in a number of significant ways in recent years.

Our role as a bulk power transmission provider is changing, too. Western now operates the Rocky Mountain Security Center on behalf of the Western Systems Coordinating Council. Center staff take the lead to monitor and maintain system operations and reliability on the interconnected grid. This year, Western staff have been working hard to implement procedures to separate transmission and reliability operations from marketing functions to comply with FERC Order No. 889.

While reinventing ourselves to keep pace with the changes in our industry, we've also had to focus on creative ways to maintain our aging transmission system. Declining Federal appropriations led us to find alternative ways to fund certain operations and maintenance activities from customer advances. We're continuing our partnering efforts with customers and generating agencies to meet the needs of those who rely on us for clean, renewable, reliable hydroelectric power. And while Congress is debating the appropriate role of the power marketing administrations in a restructured environment, we remain committed to our primary role of marketing and transmitting bulk hydropower to customers across the West.

FY 1998 ACCOMPLISHMENTS

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ACCOMPLISHMENTS

Mission accomplishment

In Fiscal Year 1998, Western sold 45 billion kilowatthours of power, collected $865 million in gross operating revenue and made principal payments of $136 million.

Staffing cuts and cost reductions

We are meeting the challenges of budget reductions by enhancing workforce productivity to improve service to our customers. We continue to make significant progress on internal restructuring efforts. This resulted in decreasing our staff by 25 percent, or 75 Federal and 340 contractor positions—all without reductions-in-force—over the past three years. In recognition of these efforts, the Department of Energy honored Western's Human Resources staff with a HEROS award.

Personnel management initiatives

Western exceeded Welfare-to-Work hiring initiatives by placing six individuals into entry levels jobs and providing appropriate support. We supported DOE efforts to implement improved personnel management practices by leading developmental efforts on several modules of the Department's new Computerized Human Resources Information System. We also successfully implemented an automated, user-friendly time and attendance system.

Control Center consolidation

On April 1, 1998, Western shifted its control area boundaries to a new configuration, completing the work to consolidate three control areas into two. The change provides significant benefits to Western and its customers by enhancing coordination with emerging regional transmission groups, increasing dispatchers' operational flexibility and eliminating the need to replace computerized control hardware at one control center. Savings from the consolidation add up to more than $5 million a year.

Open Access Transmission Service Tariff

In response to Federal Energy Regulatory Commission Orders No. 888 and 889, which promote wholesale competition through non-discriminatory transmission service to utilities, Western developed an open access transmission service tariff that governs how utilities and power marketers will gain access to Western's transmission. FERC's outline was designed for utilities that most often operate a single integrated power system. Our challenge was to integrate the legal requirements of our 13 separate systems into one single tariff, while accommodating the diverse nature of the 15 projects from which we market power and/or transmission services. Western's tariff was voluntarily filed at FERC in December 1997.

Functional separation

Western began the work necessary to comply with FERC requirements to separate its power marketing and system operations functions in FY 1998. The goal of this separa-

Continued on the next page.

tion is to prevent the use of inside information to gain market advantage. To comply, Western is making transmission availability and price information available to all market participants—both Western marketing staff and others—at the same time through a Web-based information system on the Internet. Western filed its Standards of Conduct for power marketing and operations employees with FERC in December 1998 to fully implement its tariff.

Interconnected system reliability

In FY 1997, Western developed and began operating one of four regional security coordination centers in the West as part of our commitment to be a leader in promoting power system reliability. This role is consistent with DOE's emphasis on electric reliability. Concerns that deregulation and open access to the transmission system could potentially degrade reliable operation of the electric grid led the utility industry to establish security coordination centers. These centers actively monitor electric power system conditions on a real-time basis to promptly identify and mitigate potential problems as well as react effectively to system emergencies as they develop.

Western also played a major role in developing the Reliability Management System used within Western Systems Coordinating Council. RMS is the first contract-based approach to ensure the reliability of the interconnected transmission system. We also achieved North American Electric Reliability Council Honor Roll status for exceeding reliability criteria for control area operations.

Industry restructuring

We continued to take part in regional restructuring forums, planning and policy development efforts. These included the Independent Grid Operator for the Pacific Northwest and Upper Midwest; Desert STAR, the independent system operator proposed for the Southwestern United States; the Mid-Continent Area Power Pool ISO for the Upper Midwest; and the California ISO. This year, IndeGO parties decided not to pursue forming an ISO, Desert STAR and MAPP ISO planning efforts continue and the California ISO is up and running. While not a member of the California ISO, a Western manager serves on the ISO's governing board and our Sierra Nevada operations are closely linked.

Rate actions and power marketing

As part of our goal to provide customers with stable rates, Western committed to meeting rate targets for each of our major projects during the next five years. These commitments call for maintaining or cutting power rates. To that end, in FY 1998 Western submitted 7 power and 7 transmission rate actions to FERC for approval. Twelve of these were for rate decreases or extensions and two were for rate increases to meet project repayment needs. All were approved without exception.

We completed contracts to sell Federal power to 26 Native American tribes in the Upper Midwest as part of the Pick-Sloan Missouri Basin Program's Post-2000 marketing program. This complex and innovative effort involved current and new customers in partnerships to bring the benefits of the Federal power program to these Tribes.

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Procurement honors

We received DOE's Small Business Award in recognition of our commitment to contract with small and disadvantages businesses. Our reengineering efforts to reduce regulatory hurdles and barriers in government procurement processes resulted in two "Hammer" awards from Vice President Al Gore's National Performance Review.

Y2K readiness

In addition to ensuring all our mission-critical systems are ready for Year 2000, we are working with the Bureau of Reclamation and the U.S. Army Corps of Engineers—our hydropower suppliers—to ensure that both generation agency power and related systems are Y2K compliant in our service area.

Business process improvements

We continued implementation of a new, commercial, off-the-shelf financial management system. Western's Business Information Decision Support System, or BIDSS, is an Oracle-based, Y2K-compliant system that meets all regulatory requirements. Employee teams began examining the use of shared services to further reduce costs and streamline activities. Several program area evaluations have been completed. Additional studies will be completed in FY 1999.

New Corporate Services Office building

We brought to a successful conclusion the contract, through the General Services Administration, for a new building for our Corporate Services, or headquarters, office. The new building will reduce our lease costs by $850,000 annually. Groundbreaking was held on Sept. 23, 1998 and move-in is scheduled for late FY 1999.

Safety and accident prevention

We continued to exceed agency and industrywide safety goals, reducing accident and severity rates to an all-time low. Western's safety and maintenance managers also began work to refocus our safety efforts to ensure every employee is taking personal responsibility for working safely.

Renewable resources and energy services

We played a significant role in supporting the President's Million Solar Roofs initiative by installing 93 kV of photovoltaic panels at a number of Western sites. We published 20 articles about particular uses for renewable resources in the *Energy Services Bulletin*, a newsletter distributed six times a year to more than 3,500 utilities and individuals. We are developing tools to assist customers in researching and evaluating green power options. And we continue to provide technical assistance and technology transfer information to customers through our "Power Line" telephone service (1-800-POWERLN), our Internet Website (www.es.wapa.gov), the *Energy Services Bulletin* and our equipment loan program.

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IRP SUMMARY

Western completed a number of actions in Fiscal Year 1998 to support the Integrated Resource Planning requirements outlined in the Energy Policy Act of 1992. These included:

- Revising and distributing the IRP annual reporting spreadsheets for individual and cooperative/member-based associations to assist customers in compiling and submitting annual IRP progress reports.
- Providing IRP-related publications and information to customers through various sources, including Western's Energy Services Website (www.es.wapa.gov), articles in Western's *Energy Services Bulletin*, and assistance through Western's no-cost Power Line technical assistance hotline (1-800-POWERLN).
- Loaning various technical equipment, including infrared cameras and demand analyzers, to customers to help them assess and increase their efficiency levels.
- Providing varying levels of direct and indirect technical assistance to help customers with integrated resource planning and energy services, including workshops and training.

Western has received IRPs and small customer plans from all applicable power customers and is regularly receiving annual progress reports and small customer annual update letters.

Through the end of FY 1998, Western received all 178 IRPs from individual customers and IRP cooperatives and 122 small customer plans. These integrated resource and small customer plans represent 699 long-term firm power customers and customer members as shown here:

Region	Individual IRPs	IRP Cooperatives	Small Customer Plans
CRSP CSC	10	10 representing 77 customers/members	4
DSW	33	7 representing 20 customers/members	16
RM	17	9 representing 136 customers/members	22
SN	4	6 representing 17 customers/members	39
UGP	71	11 representing 192 customers/members	41

This was the first year that IRP annual progress reports were due from all firm power customers that submitted individual and/or cooperative IRPs. The table on page 24 presents a breakout of customer demand-side management and renewable resource activities and expenditures as reported in IRP annual progress reports. The table is not all-inclusive, as customer data was not available in all regions for all customers.

Highlights from the customers' annual reporting include:

- 558,000 kW saved across Western's service area through DSM measures
- 526 million kWh saved across Western's service area through DSM measures
- $58 million expended on DSM measures across Western's service area
- 1.2 million kW generated from renewable resources across Western's service area
- 3.8 billion kWh generated from renewable resources across Western's service area

In accordance with Section 204(h) of EPAct, Western is initiating a public process in 1999 to review and potentially revise IRP criteria. The impact of both new technologies and electric utility industry competition on IRP will be assessed as part of that public process.

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Customer IRP Reporting Results

(Based on customers reporting prior to Dec. 31, 1998)
Data represents IRPs only (small customer reporting is optional in this format).

	CRSP CSC	DSW	RM	SN*	UGP
DSM kW Savings	25,976 kW ▲	157,303 kW	51,832 kW ●	8,497 kW	314,496 kW
DSM kWh Savings	97,138,657 kWh ▲	56,119,428 kWh	12,845,252 kWh ●	41,558,290 kWh	318,066,514 kWh
DSM Expenditures	$2,840,693 ▲	$14,590,913	$4,046,995 ●	$5,659,427	$31,032,994
DSM Deviation	$332,809 more than planned	$9,752,188 more than planned	$1,209,050 less than planned	Not reported	$14,843,994 more than planned
DSM Program Types	• Domestic hot water measures • Commercial/ industrial cooling • Commercial/ industrial lighting • Interruptible loads	• Residential cooling/ventilation • Commercial/ industrial cooling • Commercial/ industrial lighting • Commercial/ industrial audits • Time-of-use rates • Power factor corrections • Pump measures • Transmission & distribution upgrades	• Residential appliance rebate programs • Commercial/ industrial cooling • Commercial/ industrial lighting • Commercial/ industrial motor • Pump measures • Peak management • Irrigation efficiency measures	• Residential cooling/ventilation • Residential refrigerator • Commercial/ industrial lighting • Commercial/ industrial motor • Irrigation efficiency measures	• Residential cooling/ventilation • Domestic hot water measures • Residential lighting • Residential heating • Commercial/ industrial lighting • Pump measures
Renewables ■ kW	42,482 kW	818,063 kW	21,000 kW	124,200 kW	148,022 kW
Renewables ■ kWh	294,585,280 kWh	2,592,019,699 kWh	83,415,022 kWh	168,000,000 kWh	733,797,207 kWh
Renewables Expenditures ■	$5,721,797	$909,746 ▲	Not reported	Not reported	$10,947,646
Renewables Deviation	$336,438 more than planned	$143,254 less than planned ▲	Not reported	Not reported	$3,208,342 more than planned
Renewables Program Types	• Small-scale/ low-head hydro • Geothermal • Solar photovoltaic • Large-scale hydro ■	• Solar photovoltaic • Solar thermal electric system • Municipal solid waste-to-energy • Large-scale hydro ■ • Small-scale/ low-head hydro • Purchased power	• Small-scale/ low-head hydro • Solar photovoltaic • Wind energy	Not reported	• Wind energy • Purchased power • Methane recovery • Large-scale hydro

* SN customers did not fully report DSM and renewables use and spending.

● Many CRSP and RM customers, including member-based associations did not include DSM items in their reports though these customers are pursuing some level of DSM.

▲ DSW renewables expenditures does not include large amounts spent by large customers but not provided in annual updates.

■ Does not include Western allocation.

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REPAYMENT SUMMARY

Status of Repayment as of September 30, 1998 [1]

(dollars in thousands)

	Cumulative 1997	Adjustments	Annual 1998	Cumulative 1998
Revenue:				
Gross operating revenue	14,485,503	15,911	864,792	15,366,206
Income transfers (net)	(413,387)	—	(92,286)	(505,674)
Total operating revenue	**14,072,115**	**15,911**	**772,506**	**14,860,532**
Other indirect revenue	—	(146)	146	—
Other indirect income transfers	—	151	(151)	—
Adjusted operating revenue	**14,072,115**	**15,916**	**772,501**	**14,860,532**
Expenses:				
O & M and other	5,215,879	2,077	288,284	5,506,240
Purchase power and other	3,799,574	(2,066)	196,487	3,993,995
Interest				
Federally financed	2,557,377	(1,007)	176,959	2,733,329
Non-Federally financed	109,025	495	11,264	120,783
Total interest	2,666,402	(512)	188,222	2,854,112
Total Expense	**11,681,855**	**(501)**	**672,994**	**12,354,347**
(Deficit)/surplus revenue	(7,603)	9,938	(30,934)	(28,598)
Indirect (deficit)/surplus revenue	—	5	(5)	—
Adjusted (deficit)/surplus revenue	**(7,603)**	**9,943**	**(30,939)**	**(28,598)**
Investment:				
Federally financed power	4,990,634	(7,644)	(33,826)	4,949,164
Non-Federally financed power	194,070	—	—	194,070
Nonpower	3,562,808	(432,104)	8,728	3,139,432
Total investment	**8,747,512**	**(439,748)**	**(25,098)**	**8,282,666**
Investment repaid:				
Federally financed power	2,319,904	2,563	131,370	2,453,837
Non-Federally financed power	31,081 [1]	—	2,095	33,176
Nonpower	35,169	1	—	35,170
Total investment repaid	**2,386,154** [1]	**2,564** [2]	**133,464** [2]	**2,522,182**
Investment unpaid:				
Federally financed power	2,670,731	(10,208)	(165,196)	2,495,327
Non-Federally financed power	162,989	—	(2,095)	160,894
Nonpower	3,527,639	(432,105)	8,728	3,104,263
Total investment unpaid	**6,361,358**	**(442,313)**	**(158,562)**	**5,760,483**
Fund balances:				
Colorado River Dam Fund	10,709	3,910	(3,018)	11,601
Working capital	1,000	—	—	1,000
Percent of investment repaid to date:				
Federal power	46.48%			49.59%
Non-Federal power	15.98%			17.01%
Nonpower	0.98%			1.12%

[1] 1997 figures restated due to rounding.
[2] Total investment repaid is $136 million.

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POWERPLANTS

FINANCIAL DATA

MANAGEMENT OVERVIEW

Outlook

Western remained focused on its goal of maintaining exceptional customer service by managing power delivery costs, maintaining the reliability and safety of the transmission system, and meeting our repayment responsibilities. Furthering this goal, we have also strengthened our partnerships with the generating agencies as evidenced by our success in coordinating funding agreements and construction and rehabilitation projects. We continue to be accountable and accessible to our customers and to provide services that individual customers find valuable.

Western is in the process of making significant changes in how we operate our business to comply with new Federal requirements and meet the competitive challenges in a deregulated environment. Western has made the commitment to voluntarily comply with the changes outlined in the Federal Energy Regulatory Commission Order Nos. 888 and 889. In response to these orders, we prepared and submitted an open access transmission service tariff to FERC in December 1997. Western has already developed a plan to separate system control (reliability) and transmission functions from our merchant (marketing) functions to facilitate open access for all transmission users. To continue to operate efficiently in this changing and dynamic marketplace, Western must remain committed, innovative, flexible and resourceful while continuing to provide exceptional customer service.

Western and the generating agencies have conducted comprehensive reviews of computer systems to identify those potentially affected by the year 2000 computer problems and have developed implementation plans to resolve the issue. We believe that with hardware and software modifications or upgrades, year 2000 will not pose any significant operational problems for our power-related computer systems. However, if this work is not completed in a timely manner, the year 2000 issue could have a material impact on power operations.

Additionally, Western year 2000 contingency plans have been developed and are scheduled for completion by June 1999. These plans will identify redundant communication methods for critical links, computer networks, local utility service disruptions, personnel call-in procedures and power system disturbances and failures. Risks of noncompliance to Western include loss of communications facilities, loss of Supervisory Control and Data Acquisition systems and relay failures. The generating agencies have similar contingency plans.

While Western and the generating agencies expect to be adequately prepared to manage the millennium rollover, there is no assurance that the other companies with which we conduct business will be compliant and operational. As a result, management has not yet assessed the year 2000 compliance expense and its related potential effect on net revenues.

Results of Operations

Fiscal year 1998 was an average water year (water flows) for Western's power systems. We did not have the superior water and inflow levels experienced by the power systems in FY 1997. Generation in FY 1998 was 41,447 GWh (down 5 percent) due to lower water inflows and decreased operating capacity. Lower generation along with power rate decreases combined to reduce total revenue received from sales of electric power. From a cash flow and investment repayment perspective, after adjusting for depreciation expense ($218.6 million), revenues at the consolidated power system level provided a net of $99.5 million for repayment in FY 1998. At the individual project level, current year revenues, net of increases in operating deficits ($21 million) and changes in prior year repayment data ($16.4 million) provided $136 million (up from $108.9 million) for repayment in FY 1998. The Pick-Sloan Missouri Basin Program and Colorado River Storage Project led the way with repayment amounts of $69.8 and $51.5 million, respectively, in FY 1998.

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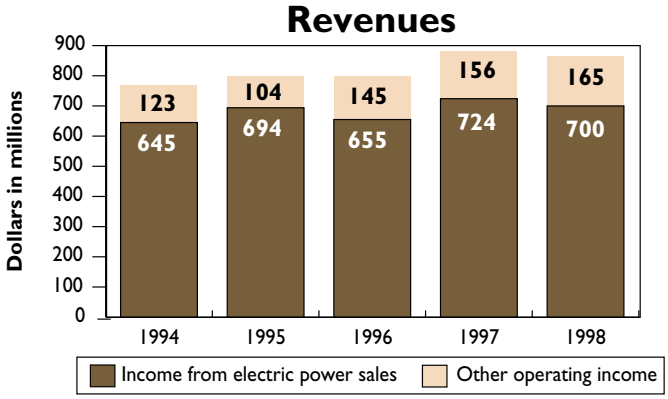
Revenues

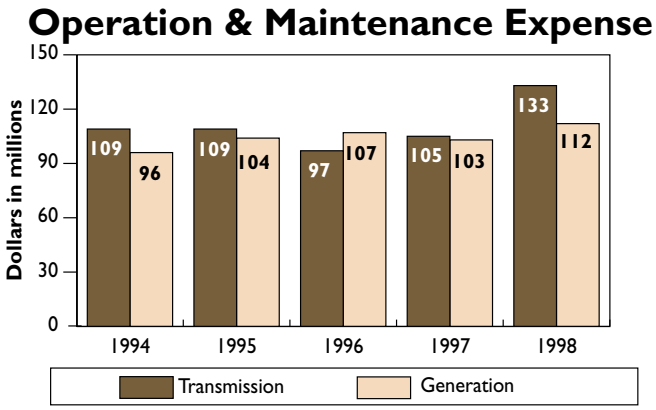
Operating revenues for FY 1998 totaled $772.5 million. This was down $19.3 million (2 percent) when compared to FY 1997 results. Overall, sales in electric power decreased by $23.3 million (3 percent). Although firm energy sales increased slightly, rate decreases (mainly for the Central Valley Project with $14.3 million) lowered firm power revenues approximately $26.1 million. Offsetting the reduction in firm power revenues were increases in non-firm power revenues due to higher spot market rates and other operating (transmission) income.



Expenses

Total operating expenses for FY 1998 were $703.4 million, up $177.3 million (34 percent) from FY 1997. The major driver was depreciation expense. Depreciation increased $123.9 million (131 percent) largely due to the impact ($87.8 million in the P-SMBP) of the U.S. Army Corps of Engineers' change in estimated service lives for assets.

After omitting the effect of these one-time adjustments, operation and maintenance expenses increased only 1 percent. Similarly, administrative and general expenses increased by a modest 2 percent. Both results are in line with Western's strategic plan and cost objective of keeping O&M and AGE increases at or below the rate of inflation.



Capital expenditures

Net utility plant decreased $205.8 million (6 percent) to $3.4 billion. Completed plant and construction work in progress increased $27 million (1 percent) and $10.2 million (6 percent), respectively. Offsetting these increases was current year depreciation expense of $218.6 million. These results are consistent with and indicative of Western's decision to concentrate construction resources and efforts to rehabilitation and replacements. Similar results are anticipated in future fiscal years.

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PERFORMANCE MEASUREMENTS

The Chief Financial Officers Act of 1990 requires Federal entities to develop performance measures to assist managers in evaluating the efficiency and effectiveness of their programs. This requirement was further stressed in the Government Performance and Results Act of 1993. The performance measures outlined here are linked to Western's organizational objectives and management responsibilities and were selected from industry standard financial and operating ratios used by public power systems for comparison in assessing electric utility performance.

Financial performance measurements

The ratio of cumulative principal paid as a percentage of total Federal investment, including aid to irrigation, measures the percentage of repaid Federal investment at the end of each year. The FY 1998 ratio (30.45 percent) increased slightly from the FY 1997 ratio (27.28 percent). During FY 1998 Western repaid $133.9 million (up from $105.4 million) of Federally financed power (to a level of 49.59 percent) and $2.1 million of non-Federally financed power (to a level of 17.01 percent). Nonpower investment (irrigation assistance) has been repaid to a level of 1.12 percent with no repayment occurring in FY 1998. The combined Federal investment repaid ratio increased to 30.45 percent in FY 1998.

The variance in principal payments indicator measures the variance (-11.97 percent in FY 1998 vs. 142.74 percent in FY 1997) of actual from planned principal payments to the U.S. Department of the Treasury. The indicator is zero if the actual payment is equal to the planned payment. Western's power generation and transmission activities provided $136 million (up from $108.9 million in FY 1997) for repayment of unpaid investment during FY 1998. However, Western's actual FY 1998 principal payments were lower than planned principal repayment by $18.5 million causing the ratio to decrease to -11.97 percent.

Western tracks several measures, which allow Western to benchmark its efficiency and effectiveness against other utilities. The most recent industry statistics are listed in Selected Financial and Operating Ratios of Public Power Systems, 1996, dated March 1998, as prepared by the American Public Power Association. Statistics are calculated based on data from more than 400 of the largest publicly owned electric utilities in the United States.

O&M and AGE costs per firm kilowatt-hour (kWh) sold is a measure of the cost to operate and maintain the generation and transmission systems, based on firm energy sales, and is measured as a cost per kWh sold. The rate increased slightly in FY 1998 to $0.009/kWh as compared with $0.008/kWh in FY 1997 primarily due to a proportionately larger increase in O&M and AGE than in firm kWhs sold. The FY 1996 industry average was $0.045/kWh.

The operating rate measures the proportion of revenues received from electricity sales, rate adjustments, and other activities required to cover operating costs (which include O&M, AGE, purchased power, and purchased transmission) associated with producing and selling electricity. Western's FY 1998 rate of $0.627 increased from the FY 1997 rate of $0.544 primarily due to higher operating expenses ($53.4 million) and lower total operating revenues ($19.3 million). The FY 1996 industry rate was $0.765.

Western's revenue received from each kWh of electricity sold remained constant from FY 1997 to FY 1998 at $0.016/kWh. Lower revenues and decreased kWh sales in FY 1998 offset to keep the rate steady. The FY 1996 industry rate was $0.060/kWh.

The total power supply expenses (O&M, AGE, PP and PT expenses) per kWh sold measures all power supply costs, including generation and purchased power, associated with the sale of each kWh of electricity. Western's FY 1998 cost, as compared to FY 1997, increased slightly (from $0.011/kWh to $0.012/kWh) as power supply costs increased and kWhs sold decreased. The FY 1996 industry average was $0.036/kWh.

Operational performance measures

Western is committed to maintaining a safe, accident-free work place. This commitment is demonstrated by Western's establishment of a Safety and

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Consolidated Financial Performance Indicators

(Dollars in thousands)

	1998	1997
Investment repaid		
Ratio	30.45%	27.28%
Paid investment	2,522,182	2,386,154
Total investment	8,282,666	8,747,512
Variance in principal payments		
Ratio	(11.97)%	142.74%
Actual principal payment less planned principal payment	(18,495)	64,030
Planned principal payment	154,523	44,859
O&M cost per firm kWh sold		
Rate	$0.0090	$0.0080
O&M, AGE	286,813	248,652
MWh sold firm	31,942,464	31,215,156
Operating rate		
Rate	$0.6271	$0.5435
O&M, AGE, PP, PT	483,125	429,817
Revenue total	770,442	790,852

	1998	1997
Revenues per kWh sold		
Rate	$0.0158	$0.0162
Revenues (sales)	629,584	657,002
MWh sold	39,940,117	40,668,030
Total power supply expenses per kWh sold		
Rate	$0.0121	$0.0106
O&M, AGE, PP, PT	483,125	429,817
MWh sold	39,940,117	40,668,030

Note: Western's financial performance indicators exclude Central Arizona Project assets, liabilities and operating expenses. Western, as the marketing agent, transfers all CAP revenue collected to Reclamation, after deducting Western's associated costs.
Certain amounts in the FY 1997 performance indicators have been reclassified to conform to the FY 1998 presentation.

Health Committee dedicated to increasing awareness of safe work practices and the inclusion of safety goals in Western's Bonus Goals Program. Western is also committed to a safe, efficient and reliable transmission system and reports on a number of operational measures for occupational safety and health and transmission system efficiency.

Occupational safety and health performance measures, as adopted by DOE for occupational injuries and illnesses, are recognized throughout the electric utility industry and by statistical gathering entities to include the National Safety Council, the U.S. Department of Labor Bureau of Labor Statistics and the National Institute for Occupational Safety and Health. Industry statistics are provided on a calendar year basis. Accordingly, Western's measures have been calculated for the same time frame. The latest statistics currently available (CY 1997) are as provided by DOL Bureau of Labor Statistics website and DOE.

Lost workday case rate measures the lost-time injury frequency rate by multiplying the number of cases that involve days away from work by 200,000 (common base of 100 full-time workers), then dividing by the total hours worked. Western's CY 1998 rate of 0.8 increased slightly from the CY 1997 rate of 0.5. The CY 1997 standard industry rate was 1.3.

Total recordable case rate measures the recordable accident frequency rate by multiplying the number of recordable cases by 200,000 (common base of 100 full-time workers), then dividing by the total hours worked. Western's CY 1998 rate of 1.7 decreased from the CY 1997 rate of 1.9. The CY 1997 standard industry rate was 5.7.

The motor vehicle accident (frequency) rate measures the agency's accident frequency by multiplying the number of recordable accidents by 1 million (rate calculated per million miles driven), and then dividing by the recorded miles driven. This rate does not distinguish between "preventable" or "non-preventable" accidents. Western's CY 1998 rate of 1.4 shows a slight increase from the CY 1997 rate of 1.1. The DOE rate for CY 1997 was 2.5.

Transmission system performance is measured using the instantaneous difference between loads and generation. Performance for each control area is measured using North American Electric Reliability Council Control Performance Standards 1 and 2. The CPS1 and CPS2 performance stan-

Continued on the next page.

dards are new and were phased in during FY 1998. A Control Compliance Rating of "Pass" is achieved when a power system receives, for each month of the fiscal year, a CPS1 performance level of 100 percent minimum and a CPS2 performance level of 90 percent minimum.

Control criteria compliance is a measure used to determine if utility employees, control equipment and generation are responsive to the minute-by-minute load changes throughout the year. Good control performance is required to maintain system reliability and to reduce losses, as well as maintain equity among interconnected systems. Western's performance is well above both the minimum requirement and the industry average.

Western's performance for FY 1998 was 183.3 percent for CPS1 and 98.2 percent for CPS2, well exceeding the minimum requirement of 100 percent for CPS1 and 90 percent for CPS2. The industry averages were 181.7 percent for CPS1 and 97.5 percent for CPS2.

It should be noted that a portion of FY 1998 was rated under the old NERC control performance measures that were known as A1 and A2. Western's average FY 1998 and FY 1997 A1 and A2 performance was 97.2 percent, well above the required level of 90 percent and the industry average of 92.9 percent and 92.0 percent in FY 1998 and FY 1997, respectively.

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INDEPENDENT AUDITORS' REPORT

The Administrator
Western Area Power Administration
United States Department of Energy:

We have audited the accompanying combined statements of assets, Federal investment, and liabilities of the Western Area Power Administration (Western) as of September 30, 1998 and 1997, and the related combined statements of revenues, expenses, and accumulated net revenues, and cash flows for the years then ended. These combined financial statements are the responsibility of Western's management. Our responsibility is to express an opinion on these combined financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards; the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States; and Office of Management and Budget (OMB) Bulletin 98-08 as amended, *Audit Requirements for Federal Financial Statements*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of Western as of September 30, 1998 and 1997, and the results of its operations and changes in accumulated net revenues, and its cash flows for the years then ended in conformity with generally accepted accounting principles.

In accordance with *Government Auditing Standards*, we have also issued reports dated December 18, 1998 on our consideration of Western's internal control over financial reporting and on its compliance with laws and regulations.

The information presented in management's *Overview and Performance Measurements* is not a required part of the combined financial statements, but is supplementary information required by OMB Bulletin 97-01, *Form and Content of Agency Financial Statements*. We have considered whether this information is materially inconsistent with the combined financial statements. Such information has not been subjected to the auditing procedures applied in the audits of the combined financial statements and, accordingly, we do not express an opinion on it. The performance information included in management's *Overview and Performance Measurements* is addressed in our auditors' report on internal control over financial reporting in accordance with OMB Bulletin 98-08, as amended.

This report is intended for the information of the management of Western and the United States Department of Energy. However, this report is a matter of public record and its distribution is not limited.

KPMG LLP

KPMG LLP

Salt Lake City, Utah
December 18, 1998

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Combined Power System Statements of Assets, Federal Investment and Liabilities

September 30, 1998 and 1997
(In thousands)

	1998	1997
Assets		
Utility plant:		
Completed plant	$ 5,158,166	5,131,152
Accumulated depreciation	(1,899,421)	(1,656,408)
	3,258,745	3,474,744
Construction work-in-progress	185,069	174,885
Net utility plant	3,443,814	3,649,629
Cash	274,910	285,007
Accounts receivable	139,669	157,304
Other assets	207,281	131,244
Total assets	**$ 4,065,674**	**4,223,184**
Federal Investment and Liabilities		
Federal investment:		
Congressional appropriations	$ 8,883,807	8,692,119
Interest on Federal investment	3,352,524	3,179,470
Transfer of property and services, net	549,325	481,130
Gross Federal investment	12,785,656	12,352,719
Funds returned to U.S. Treasury	(9,345,727)	(8,820,931)
Net outstanding Federal investment	3,439,929	3,531,788
Accumulated net revenues	270,653	389,737
Total Federal investment	3,710,582	3,921,525
Commitments and contingencies (notes 5, 8, and 9)		
Liabilities		
Accounts payable	60,827	63,756
Other liabilities	294,265	237,903
Total liabilities	**355,092**	**301,659**
Total Federal investment and liabilities	**$ 4,065,674**	**4,223,184**

The accompanying notes are an integral part of these combined power system financial statements.

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Combined Power System Statements of Revenues, Expenses and Accumulated Net Revenue

Years ended September 30, 1998 and 1997
(In thousands)

	1998	1997
Operating revenues:		
Sales of electric power	$ 700,355	723,696
Other operating income	164,583	156,477
Gross operating revenues	864,938	880,173
Income transfers, net	(92,437)	(88,352)
Total operating revenues	**772,501**	**791,821**
Operating expenses:		
Operation and maintenance	245,398	208,165
Administration and general	42,884	41,999
Purchased power	152,978	149,038
Purchased transmission services	43,509	32,127
Depreciation	218,591	94,689
Total operating expenses	**703,360**	**526,018**
Net operating revenues	**69,141**	**265,803**
Interest on Federal investment:		
Interest on Federal investment	185,380	196,870
Allowance for funds used during construction	2,845	(18,278)
Net interest expense	**188,225**	**178,592**
Net revenues (deficit)	**(119,084)**	**87,211**
Accumulated net revenues:		
Balance, beginning of year	**389,737**	**302,526**
Balance, end of year	**$ 270,653**	**389,737**

The accompanying notes are an integral part of these combined power system financial statements.

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Combined Power System Statements of Cash Flows

Years ended September 30, 1998 and 1997
(In thousands)

	1998	1997
Cash flows from operating activities:		
Net revenues (deficit)	$ (119,084)	87,211
Adjustments to reconcile net revenues (deficit) to net cash provided by operating activities:		
Depreciation	218,591	94,689
Interest on Federal investment	179,711	169,827
Write-off of assets	11,120	—
(Increase) decrease in assets:		
Accounts receivable	17,635	(41,010)
Other assets	(60,517)	(15,537)
Increase (decrease) in liabilities:		
Accounts payable	(2,929)	(2,734)
Other liabilities	56,587	14,159
Net cash provided by operating activities	**301,114**	**306,605**
Cash flows used in investing activities - investment in utility plant	(57,101)	(59,949)
Cash flows from financing activities:		
Congressional appropriations	272,679	220,743
Funds returned to U.S. Treasury	(524,796)	(493,226)
Principal payments to upraters	(1,993)	(1,744)
Net cash used in financing activities	**(254,110)**	**(274,227)**
Decrease in cash	(10,097)	(27,571)
Cash at beginning of year	285,007	312,578
Cash at end of year	$ 274,910	285,007

Supplemental Schedule of Noncash Investing and Financing Activities

Transfer of construction work-in-progress to completed plant	$ 46,603	183,004
Capitalized interest during construction	(2,845)	18,278
Transfer of certain utility plant costs to other assets	14,036	—

The accompanying notes are an integral part of these combined power system financial statements.

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Notes to Combined Power System Financial Statements

September 30, 1998 and 1997

(1) Basis of Preparation of Combined Power System Financial Statements and Summary of Significant Accounting Policies

(a) General

Western Area Power Administration's (Western) combined power system financial statements include the individual power projects listed in note 2 to these combined power system financial statements. Western is the Federal power marketing administration authorized to market and transmit power generated from these power projects. Except for the Central Arizona Project (CAP) and the Pacific Northwest-Pacific Southwest Intertie, these power projects are part of multipurpose water resource projects and include certain transmission facilities of Western, an agency of the U.S. Department of Energy (DOE), and certain generating facilities of the U.S. Department of the Interior, Bureau of Reclamation (Reclamation); the U.S. Department of Defense, Army Corps of Engineers (Corps); and the U.S. Department of State, International Boundary and Water Commission (IBWC). The United States has no ownership in power facilities of the CAP, but Reclamation does have an entitlement to power from the project generating facility (Navajo Generating Station) and to transmission capacity from transmission facilities. CAP assets and the associated entitlement are not included in the combined power system financial statements.

Western markets and transmits power throughout 15 western states which is produced by hydropower plants operated by Reclamation, the Corps, and IBWC. Each are separately managed and financed, and maintain separate accounting records. Reclamation, the Corps, and IBWC operate and maintain generating facilities that are part of multipurpose water resource projects and, accordingly, allocate certain operating expenses and net assets among the projects' activities. Costs of the multipurpose projects are allocated to individual purposes (principally power, irrigation, municipal and industrial water, navigation, and flood control) through cost allocation processes (see note 5b). The accompanying combined power system financial statements include only those expenses and net assets which are expected to be recovered through the sale of power and other related income.

Accounts are maintained in accordance with generally accepted accounting principles (GAAP) and the uniform system of accounts prescribed for electric utilities by the Federal Energy Regulatory Commission (FERC). Accounting policies also reflect specific legislation and executive directives issued by Federal government departments. Western's combined power system financial statements are generally presented in accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 71, *Accounting for the Effect of Certain Types of Regulation.* The provisions of SFAS No. 71 require, among other things, that regulated enterprises reflect rate actions of the regulator in their combined power system financial statements, when appropriate. These rate actions can provide reasonable assurance of the existence of an asset, reduce or eliminate the value of an asset, or impose a liability on a regulated enterprise.

(b) Confirmation and Approval of Rates

The Secretary of Energy (Secretary) has delegated authority to Western's Administrator to develop power and transmission rates for the power projects. The Deputy Secretary of Energy has the authority to confirm, approve, and place such rates in effect on an interim basis. The Secretary delegated to FERC the authority to confirm, approve, and place such rates in effect on a final basis; to remand; or to disapprove such rates. Refunds with interest, as determined by FERC, are authorized if rates finally approved are lower than rates approved on an interim basis. However, if at any time FERC determines that the administrative cost of a refund would exceed the amount to be refunded, no refunds will be required. No refunds are anticipated in connection with rates approved on an interim basis through September 30, 1998.

(c) Operating Revenues

Operating revenues are recorded on the basis of power and services provided. Except for power projects using revolving funds, cash received is deposited directly with the U.S. Department of the Treasury (U.S. Treasury) and is reflected as "Funds Returned to U.S. Treasury" in the accompanying combined power system statements of assets, Federal investment, and liabilities. For power projects using revolving funds, cash received is deposited in the U.S. Treasury and remains available to the project for operation and maintenance expenses. Construction expenditures are primarily financed through Congressional appropriations. For revolving fund projects, cash collected in excess of expenditures is used for repayment of investment and interest to the U.S. Treasury.

Power and transmission rates are established under requirements of the power projects' authorizing legislation and related Federal statutes and are intended to provide sufficient revenue to recover all costs allocated to power and, in some projects, a portion of irrigation-related costs (see note 8b). Costs allocated to power include repayment to the U.S. Treasury of its investment in power facilities and interest thereon. Rates are structured to provide for repayment of investment in power facilities, generally over 50 years, while operation and maintenance costs and interest on Federal investment are recovered annually. Replacements to Federal investment are generally to be repaid over their expected service lives.

The projects' enacting legislation does not recognize annual depreciation based on actual service lives as a measure of the required repayment for investment in utility plant. This results in some assets being fully depreciated before costs are recovered whereas annual depreciation costs on other assets continue after such costs have been recovered through revenues. Western matches these costs and revenues by deferring the unmatched portion of the revenues as accumulated net revenues. Because Western is a nonprofit Federal power marketing agency, accumulated net revenues are committed to repayment of the Federal investment.

Income transfers, net, represent the amount of funds collected but subsequently transferred to Reclamation. This amount relates to the surplus generation billed from the Navajo Generat-

Continued on the next page.

ing Station by Western, on behalf of Reclamation's CAP and the Central Arizona Water Conservation District.

(d) Cash

For purposes of reporting cash flows, cash consists principally of the unexpended balance of funds authorized by Congress, customer advances, and revolving fund revenues at the U.S. Treasury.

(e) Utility Plant

Utility plant is stated at original cost, net of contributions in aid of construction by entities outside of the combined power system. Costs include direct labor and materials; payments to contractors; indirect charges for engineering, supervision, and administrative and general expense; and interest during construction (IDC). The costs of additions, major replacements, and betterments are capitalized, with the exception of replacements at the Boulder Canyon Project (BC Project), which are charged to operation and maintenance expense. Repairs are charged to operation and maintenance expense. The cost of utility plant retired is charged to depreciation expense and the net of removal costs and salvage credits are capitalized as part of the direct replacement asset. If there is not a replacement asset, the net of removal costs and salvage credits are charged to operation and maintenance expense. Plant assets of the combined power system are currently depreciated using the straight-line method over estimated service lives ranging from 10 to 89 years.

(f) Interest on Federal Investment

Interest is accrued annually on the Federal investment based on Western's interpretation of Federal statute and project legislation. Such interest is reflected as an annual expense in the accompanying statements of revenues, expenses, and accumulated net revenues with a corresponding increase in the gross Federal investment. Western calculates interest on Federal investment based on the annual unpaid balance owed to the U.S. Treasury using rates set by law, administrative orders pursuant to law, or administrative policies. Interest rates range from 2.5 to 12.4 percent depending on the year in which construction on the transmission and generation facilities was initiated or on the authorizing legislation.

As allowed under Federal law, interest is not accrued on Federal investment in irrigation facilities anticipated to be repaid through power sales (see note 8b).

(g) Interest During Construction

The practice of capitalizing IDC is followed for all generating and transmission facilities. Western calculates IDC based on the average annual outstanding balance of construction work-in-progress. Western's policy is to capitalize IDC through the end of the fiscal year in which assets are placed in service. IDC is recovered over the repayment period of the related plant asset through increased revenues resulting from higher investment. Applicable interest rates ranged from 6.9 to 12.4 percent for the years ended September 30, 1998 and 1997.

(h) Pension and Other Retirement Benefits

Statement of Federal Financial Accounting Standards (SFFAS) No. 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government* and SFFAS No. 5, *Accounting for Liabilities of the Federal Government,* direct the full cost reporting of employment benefits by employing entity. Under these statements, Western is required to record the costs to the Federal government of providing pension, life and health insurance, and other post-employment benefits (severance payment, counseling and training, workers' compensation benefits, etc.) "regardless of whether the benefits are funded by the reporting entity or by direct appropriations to the trust fund" (see note 9b).

(i) Income Taxes

The facilities and income included in these combined power system financial statements are exempt from taxation.

(j) Use of Estimates

Management of the combined power system has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these combined power system financial statements in conformity with GAAP. Actual results could differ from those estimates.

(k) Reclassifications

Certain amounts in the prior year's combined power system financial statements have been reclassified to conform with the fiscal year (FY) 1998 presentation.

(l) Fair Value of Financial Instruments

The carrying value for certain short-term financial instruments approximates fair value. Such financial instruments include: cash, accounts receivable, and accounts payable. The carrying value of debt instruments, which include advances from certain BC Project customers and from the state of Wyoming (see note 6), approximates fair market value.

(2) Power Projects and Authorizing Legislation

Western's combined power system financial statements include the financial position, results of operations, and cash flows of 15 separate power projects. The following is a list of the Federal power projects and related authorizing legislation. Transmission and generating facilities are operated as individual integrated power projects with the financial results combined in these combined power system financial statements:

Boulder Canyon Power System
Boulder Canyon Project Act of 1928, as amended

Central Arizona Project
Colorado River Basin Project Act of 1968, as amended

Central Valley Power System
Act of August 26, 1937, as amended

Collbran Power System
Act of July 3, 1952

Colorado River Storage Power System
Colorado River Storage Project Act of April 11, 1956, as amended

Dolores Power System
As a participating project of the Colorado River Storage Power System, it utilizes the same authorizing legislation

Falcon-Amistad Power System
Treaty between the United States and Mexico, February 3, 1944; Acts of October 5, 1949, June 18, 1954, and July 7, 1960

Fryingpan-Arkansas Power System
Act of August 16, 1962, as amended

Pacific Northwest-Pacific Southwest Intertie Project
Act of August 31, 1964

Parker-Davis Power System
Act of May 28, 1954

Continued on the next page.

Pick-Sloan Missouri Basin Power System
Flood Control Act of 1944, as amended

Provo River Power System
Finding of Feasibility by the Secretary of the Interior, November 13, 1935

Rio Grande Power System
Act of February 25, 1905

Seedskadee Power System
As a participating project of the Colorado River Storage Power System, it utilizes the same authorizing legislation

Washoe Power System
Act of August 1, 1956

(3) Other Assets

Other assets as of September 30, 1998 and 1997, consist of the following (in thousands):

	1998	1997
Moveable equipment, net	$ 55,366	50,264
Abandoned project costs, net	39,402	18,943
Miscellaneous deferred debits	28,761	14,067
Workers' compensation (see note 6)	26,701	7,420
Purchase power termination settlements (see note 6)	26,386	-
Stores inventory	16,850	20,902
Interchange energy	4,410	12,269
Energy banking deferral	4,250	2,481
Deposit funds available	2,948	1,955
Prepayments and advances to others	2,207	2,943
Total	**$ 207,281**	**131,244**

The abandoned project costs include the Celio-Mead transmission line of $18.3 million, which will be amortized over 22 years and Bonneville investigation costs associated with the Bonneville Unit of the Central Utah Project of $21.1 million which will be amortized over 10 years and recovered through power rates.

The energy banking deferral is an arrangement with certain customers in which excess power and/or transmission capacity is banked with the customers until additional power is needed by Western to meet contractual obligations. Western records an other asset for the banked power and/or transmission services provided at a contractually agreed-upon amount. The net revenue or expense associated with the banking activity is deferred as an other liability.

(5) Federal Investment and Cost Allocation

(a) General

Federal investment consists of Congressional appropriations (net of nonreimbursable expenses), accumulated interest on unpaid Federal investment, and the net transfers of property and costs from other Federal agencies. All power projects (except Dolores, Seedskadee, BC, and the operations and maintenance and purchased power programs of the Colorado River Storage Project (CRSP)) are primarily financed through Congressional appropriations for operation and maintenance, construction and rehabilitation, and purchased power expenditures. A portion of construction and rehabilitation, and purchased power expenditures are financed through other mechanisms such as advances from nonfederal entities; reimbursements from other Federal agencies; alternative methods such as net billing and bill crediting; or any combination thereof.

The Federal investment in the combined power systems' utility plant is to be repaid to the U.S. Treasury within 50 years from the time the facilities are placed in service. Replacements to Federal investments are generally to be repaid over their expected service lives. Operating expenses (excluding depreciation expense) and interest on the unpaid Federal investment should be paid annually. To the extent that funds are not available for payment, such unpaid annual net deficits become payable from the subsequent years' revenue prior to any repayment of Federal investment. Interest is accrued on cumulative annual net deficits until paid. Deficits for operating expenses, net of depreciation expense, begin to accrue interest in the year they occur. Interest expense deficits begin to accrue interest in the year following occurrence. As of September 30, 1998 and 1997, the cumulative unpaid annual operating expenses (excluding depreciation expense) and interest on Federal investment were approximately $37 and $16 million, respectively.

(b) Federal Investment in Multipurpose Facilities

The Federal investment in certain multipurpose facilities (primarily dams and appurtenant structures integral to the generation of

(4) Utility Plant

Major classes of utility plant and related accumulated depreciation as of September 30, 1998 and 1997, consist of the following (in thousands):

	1998			1997		
	Western	Generating agencies	Total	Western	Generating agencies	Total
Completed plant	$ 2,340,084*	2,818,082	5,158,166	2,327,209*	2,803,943	5,131,152
Accumulated depreciation	(835,250)	(1,064,171)	(1,899,421)	(725,357)	(931,051)	(1,656,408)
	1,504,834	1,753,911	3,258,745	1,601,852	1,872,892	3,474,744
Construction work-in-progress:	132,115	52,954	185,069	108,702	66,183	174,885
Net utility plant	$ 1,636,949	1,806,865	3,443,814	1,710,554	1,939,075	3,649,629

* Includes approximately $22.5 million and $28.6 million of intangible assets representing power rights as of September 30, 1998 and 1997, respectively.

During FY 1998, the Corps changed the useful lives on plant assets. This change in accounting estimate resulted in an increase of approximately $80 million in accumulated depreciation and depreciation expense in the accompanying combined power system financial statements as of and for the year ended September 30, 1998.

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power), required to be repaid from the sale of power, has been determined from preliminary cost allocation studies based on standards approved by Congress. Allocations between power and nonpower activities may be changed in future years; however, an allocation standard cannot be changed unless the change is also approved by Congress.

Final studies will be performed by Reclamation and the Corps, as appropriate, upon completion of each individual power project and are still pending for all but the Fryingpan-Arkansas Project (FryArk). The FryArk final study was completed by Reclamation in FY 1993. The BC Project and Parker-Davis Project are not subject to cost allocation studies since these projects' enacting legislation required the total costs of the dams and appurtenant structures to be repaid through power revenues.

As final cost allocation studies are still pending for many of the individual projects comprising the combined power system, potential exists for significant future adjustment in the Federal investment for the cost of multipurpose facilities allocated to power and the related accrued interest on unpaid investment. In 1997, Reclamation studied the implications of a cost reallocation of the Pick-Sloan Missouri Basin Program (P-SMBP) on existing water and power rates. Reclamation's study resulted in costs being reallocated to power. Reallocation of these costs to power range from zero to $416 million depending on the assumptions of the cost methodologies used. Such a reallocation change could substantially affect power rates at the P-SMBP.

(c) CRSP Interest Credit

All Western power projects take an annual interest credit for payments that are made monthly on obligations that are due annually to the U.S. Treasury. Before 1997, the CRSP, Dolores, and Seedskadee Projects had not incorporated this practice. During FY 1997, CRSP Customer Service Center personnel along with Western's legal counsel reviewed the provisions of the CRSP Act of April 11, 1956, and determined that an interest credit was appropriate. Beginning in FY 1997, the CRSP began to take an interest credit. Furthermore, in 1998, Western has computed an interest credit for the years 1964 through 1996 which amounts to $5.6 million, and applied it against interest expense.

(6) Other Liabilities

Other liabilities as of September 30, 1998 and 1997, consist of the following (in thousands):

	1998	1997
Customer advances	$ 165,955	168,537
Workers' compensation	30,080	10,475
Purchase power termination settlements	26,386	-
Miscellaneous deferred credits	21,879	18,241
Cooperative and reimbursable work	18,755	15,778
Accrued annual leave	12,282	9,528
Accrued payroll benefits	7,318	6,242
Interchange energy	4,410	4,663
Energy banking deferral (see note 3)	4,250	2,481
Deposit funds available	2,950	1,958
Total	**$ 294,265**	**237,903**

Customer advances primarily consist of two components. The first part is principal and interest payable to contractors/customers of the BC Project who provided financing for the cost of upgrading each of the generating units at Hoover Dam. The liability to such customers is being relieved through issuance of credits on the subsequent sale of power. The obligation is scheduled to be relieved over a period through and including the year 2017, with interest at rates ranging between 5.5 and 8.2 percent. The second component consists of the principal payable to the State of Wyoming which provided partial financing for the cost of improvements at the Buffalo Bill Dam and associated powerplants. The liability to the State of Wyoming is scheduled to be relieved over a period of 35 years beginning in 1996, with an approximate interest rate of 11.1 percent.

Workers' compensation consists of two elements: actuarial liability associated with workers' compensation cases incurred for which additional claims may still be made in the future (future claims) and a liability for expenses associated with actual claims incurred and paid by the Department of Labor (DOL), the program administrator, whom Western must reimburse. In conjunction with SFFAS No. 4 and No. 5, the DOL determined the actuarial liability associated with future claims using historical benefit payment patterns discounted to present value (37 years) using economic assumptions for 10-year U.S. Treasury notes and bonds. Western included $26.7 million (Corps' data not available) and $7.4 million (Generating agencies' data not available) as an other liability relating to future claims in the combined power system statements of assets, Federal investment, and liabilities as of September 30, 1998 and 1997, respectively.

The recovery of these future claims will be deferred for purposes of the rate-making process until such time the future claims are actually submitted and paid by the DOL. Therefore, the recognition of the expense associated with this actuarially-determined liability has been deferred as an other asset in the combined power system statements of assets, Federal investment, and liabilities in accordance with SFAS 71 (see note 3) to reflect the effects of the rate-making process. Western's cumulative unpaid expenses associated with actual claims incurred are $3.4 and $3.1 million as of September 30, 1998 and 1997, respectively.

During FY 1998, Western renegotiated certain long-term contractual obligations with third party power providers. Under the terms of the settlement agreements, payments will be made through the year 2014. The recovery of these payment obligations will be deferred for purposes of the rate-making process until such time the obligations become due. Therefore, the recognition of the expense associated with the settlements has been deferred as an other asset in the combined power system statements of assets, Federal investment, and liabilities in accordance with SFAS 71 to reflect the effects of the rate-making process.

(7) Lease Commitments

The organization has several cancelable operating leases, primarily for office and warehouse space that expire over the next 15 years. The General Service Administration is the lease holder and in most cases only 120-day notice is required to terminate. In the event the space is government owned, a 180-day notice is required. These leases generally contain renewal options for periods ranging from 3 to 5 years and require the organization to pay all executory costs such as maintenance and insurance. Rental expense for operating leases was approximately $3.2 million for the years ended September 30, 1998 and 1997.

(8) Commitments and Contingencies

(a) General

Western, Reclamation, the Corps, and IBWC are involved in various claims, suits, and complaints which are routine to the nature of their business. These Federal government organizations are also fully self-insured for claims pertaining to unemployment, long-term disability, and health and life insurance. Liabilities for these claims, as reported in the accompanying combined power

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system financial statements, are based on reported pending claims, estimates of claims incurred but not yet reported, actuarial reports, and historical analysis. The above entities are contingently liable with respect to claims beyond those actuarially projected. It is management's opinion that such claims will not have a material adverse effect on the combined power system financial statements.

The accompanying September 30, 1998, combined power system statement of assets, Federal investment, and liabilities includes investment in completed plant for the Hoover Dam visitor facilities. Presently, the total cost of the facilities, including IDC, is approximately $124 million and contingent upon the settlement of the following claim.

The construction contractor for the Hoover Dam visitors center and parking structure submitted a $32.3 million breach of contract claim to Reclamation on July 28, 1995. The Contracting Officer issued a final decision on the claim on September 21, 1995, stating that the claim, as submitted, was denied. Subsequently, the contractor filed a breach of contract lawsuit against Reclamation with the Court of Federal Claims on October 4, 1995.

The testimony by both parties before the court has concluded. Post-trial briefings are being prepared and will be submitted to the court. Closing arguments remain to be made to the court. At this point, the court estimates up to 12 months to prepare a decision.

In January 1996, Western issued a notice to terminate a purchase power contract with the City of Tacoma (Tacoma). The effective date of the termination was February 1, 1997. Tacoma sued Western in U.S. District Court, alleging that Western violated the Administrative Procedure Act by: (1) exceeding its authority under the Reclamation Laws and Energy Act; (2) failing to consider the effects that terminating the purchase power contract would have on the economic well being of Tacoma and its utilities; (3) exceeding its authority under the contract; and (4) failing to consider all relevant factors in making the decision to terminate the contract. Western believes that it acted properly in terminating the contract, in accordance with the terms of the contract. After Western terminated the contract, Tacoma amended its complaint by adding claims for breach of contract. Tacoma now seeks damages of $144 million.

(b) Irrigation Assistance

Federal statute requires the use of the combined power systems' net revenues to repay the U.S. Treasury a certain portion of Reclamation's project capital costs allocated to irrigation purposes determined by the Secretary of the Interior to be beyond the ability of the irrigation customers to repay. Although these costs may be paid through power sales, such costs do not represent an operating cost of the combined power system. Such payments were zero and $2 million for the years ended September 30, 1998 and 1997, respectively. The most current power repayment studies prepared by Western indicate that approximately $3.1 billion of existing non-power Federal investment will be repaid from future power revenues.

(c) Financing of BC Project Improvements

In 1987, Reclamation initiated a project designed to increase (uprate) the generating capacity of the BC Project. Certain customers of the project agreed to provide funding for the cost of the improvements, primarily through the issuance of long-term bonds. In some cases, proceeds from the issuance of the bonds exceeded the amounts required to fund the cost of the improvements.

For purposes of measuring the liability related to the Uprating Program, Reclamation reports only the total amount of the advances received from customers in the accompanying combined power system statements of assets, Federal investment, and liabilities (see note 6). Bond issuance costs are being included in the determination of annual interest expense to be recognized over the term of the debt repayment. Net proceeds from the issuance of the debt, in excess of the amount advanced to Reclamation, have similarly been excluded from the assets of the BC Project. Presently, interest expense on the liability is measured based on the total outstanding bonded indebtedness. Interest income from excess proceeds reduce interest costs subject to arbitrage regulations. Until any remaining excess funds are applied against outstanding debt, the total interest cost of financing the Uprating Program will be subject to uncertainty.

(d) Colorado River Storage Project

In October 1992, Congress passed the Grand Canyon Protection Act of 1992 (the Act). The purpose of the Act was to "protect . . . and improve the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were established."

The Act relieves CRSP power customers of repayment obligations for costs equivalent to certain expenses of environmental impact studies, associated purchased power, and other miscellaneous expenses related to the Glen Canyon Dam. However, in connection with this legislation, Congress included a provision that such costs could become the responsibility of the power customers if the overall provisions of the Act cause net offsetting receipts to decrease from FY 1993 through FY 1997. In FY 1998, power customers began receiving credit to outstanding obligations equal to their spending on the aforementioned environmental expenses.

The Secretary of the Interior, in concert with Reclamation management, has determined the reimbursability of all environmental costs incurred from 1993 through 1996. The reimbursability of environmental costs is driven by net offsetting receipts. The Commissioner's Office of Reclamation is in the process of determining the net offsetting receipts amount for 1997 which will be used to calculate the reimbursability of environmental costs for 1997. Western and Reclamation will continue to account for these costs under current interpretations until the Commissioner's Office of Reclamation releases the net offsetting receipts figures for 1997. Any future obligation related to the final allocation of these costs will be reflected in the period in which such obligations become evident.

For the years ended September 30, 1998 and 1997, Western and Reclamation combined, incurred $3.8 and $7.9 million, respectively, in environmental costs which were deemed nonreimbursable. Accordingly, such costs have been charged against Congressional appropriations in the accompanying combined power system statements of assets, Federal investment, and liabilities.

(e) Power Contract Commitments

Western has entered into various long-term agreements for power and transmission purchases to meet its contractual obligations. For the years ended September 30, 1998 and 1997, purchased power expenses totaled $153.0 and $149.0 million, respectively; and purchased transmission service expenses totaled $43.5 and $32.1 million, respectively. Western's long-

Continued on the next page.

term commitments for power and transmission, subject to the availability of Federal funds and contingent upon annual appropriations from Congress, have various termination dates and are as follows (in thousands):

Year ended September 30:	Purchased power	Purchased transmission	Total
1999	$ 68,162	1,737	69,899
2000	39,319	1,737	41,056
2001	33,604	1,737	35,341
2002	33,536	1,737	35,273
2003	33,919	1,255	35,174
Thereafter	131,743	3,055	134,798
Total	**$ 340,283**	**11,258**	**351,541**

(f) FERC Order No. 888

FERC issued its final rule on open access transmission service, Order No. 888, on May 10, 1996, and followed with Order No. 888-A on March 14, 1997. Western is not a public utility under Sections 205 and 206 of the Federal Power Act and is not specifically subject to the requirements of FERC Order Nos. 888 and 888-A. Western is a transmitting utility subject to Section 211 of the Federal Power Act as amended by the Energy Policy Act of 1992. The Secretary of Energy adopted a power marketing open access transmission service policy in October 1995 which stated that the DOE supported open access transmission service and the Power Marketing Administrations would comply with the principles set forth in the final FERC rule to the extent consistent with applicable law.

Western published a final Tariff in the Federal Register on January 6, 1998. The Tariff provides for nondiscriminatory access on the unused capacity of transmission facilities under the jurisdiction or control of each of Western's Regional Offices not required for the delivery of long-term firm capacity and energy to customers of the Federal government. Nothing in the Tariff shall alter, amend, or abridge the statutory or contractual obligations of Western to market and deliver Federal power resources and to repay the Federal investment in such projects. Each project has either filed long-term rates for transmission service under the Tariff or will operate under approved rates for sales of short-term transmission service until a new long-term rate adjustment process is completed.

In conjunction with Order No. 888, as amended, FERC also issued Order No. 889, as amended, which requires utilities to develop Open Access Same-Time Information Systems and establish standards of conduct. In the summer of 1998, Western began a process to comply with the requirements of Order No. 889 to separate merchant functions and transmission reliability functions. Western implemented its standards of conduct on February 1, 1999.

Western expects no adverse effects from complying with FERC Order Nos. 888 and 889, as amended. Western is participating in the development of Independent System Operators, Regional Transmission Groups, and other industry organizations to protect the interests of the Federal government. Western expects to continue selling firm power and energy to existing customers at cost based rates that repay each project. Western has no stranded costs at this time and does not expect to have any in the foreseeable future. The greatest risk, if any, from deregulation of the electric utility industry is the potential for Congress to pass new legislation impacting Western's marketing or rate-setting practices. However, with a Federal agency, this is an inherent risk that is always present.

(9) Other

(a) Washoe Project

The most recent Washoe Project Power Repayment Study indicates the project requires a rate of at least 62 mills per kWh to cover annual operating expenses (excluding depreciation expense) plus interest to repay the Federal investment in project facilities allocated to power. In FY 1998, Western sold the output of the Stampede powerplant at an average price of 15.08 mills per kWh.

Washoe Project facilities cumulative unpaid annual operating expenses plus interest totals approximately $4.0 million and the net unpaid Federal investment totals approximately $4.4 million as of September 30, 1998. This compares with cumulative unpaid annual operating expense plus interest of $3.8 million and net unpaid Federal investment of $4.4 million, after a $4.3 million prior-year adjustment for changes in Reclamation's cost allocation percentages, as of September 30, 1997. Western has proposed in the Central Valley Project (CVP) 2004 marketing plan to integrate the Washoe Project with the CVP to ensure Washoe's repayment.

(b) Pension and Other Retirement Benefits

Western, Reclamation, the Corps, and IBWC employees participate in one of the following contributory defined benefit plans: the Civil Service Retirement System (CSRS) or Federal Employees Retirement System (FERS). Agency contributions are based on eligible employee compensation and total 7 percent for CSRS and up to 11.5 percent for FERS. These contributions are submitted to benefit program trust funds administered by the Office of Personnel Management (OPM). Western contributions (generating agencies contributions were not available) for the two plans amount to $8.0 million and $7.1 million for the years ended September 30, 1998 and 1997, respectively.

The contribution levels as legislatively mandated do not reflect the full cost requirements to fund the CSRS pension plan (approximately 24.2 percent). Other post-retirement benefits administered and partially funded by the OPM are the Federal Employees Health and Benefits Program (FEHB) and the Federal Employee Group Life Insurance Program (FEGLI). FEHB is calculated at $2,529 per employee, and FEGLI is based on .02 percent of base salary for each employee enrolled in these programs. In addition to the amounts contributed to the CSRS and FERS as stated above, Western recorded operation and maintenance expense for the pension and other retirement benefits in the combined power system statements of revenues, expenses, and accumulated net revenues of $10.1 million (excluding the Corps contributions which were not available) for the year ended September 30, 1998 and $6.7 million (excluding the generating agencies contributions which were not available) for the year ended September 30, 1997. This amount reflects the contribution to be made on behalf of Western and the generating agencies by OPM to the trust funds. In 1997, Western recorded other income to offset the expense. During 1998, the amount was recorded in Congressional appropriations which reflects the DOE mandate to recover such costs through power rates.

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Name/Title	Telephone
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DSW operations manager	602-352-2645
Tyler Carlson	
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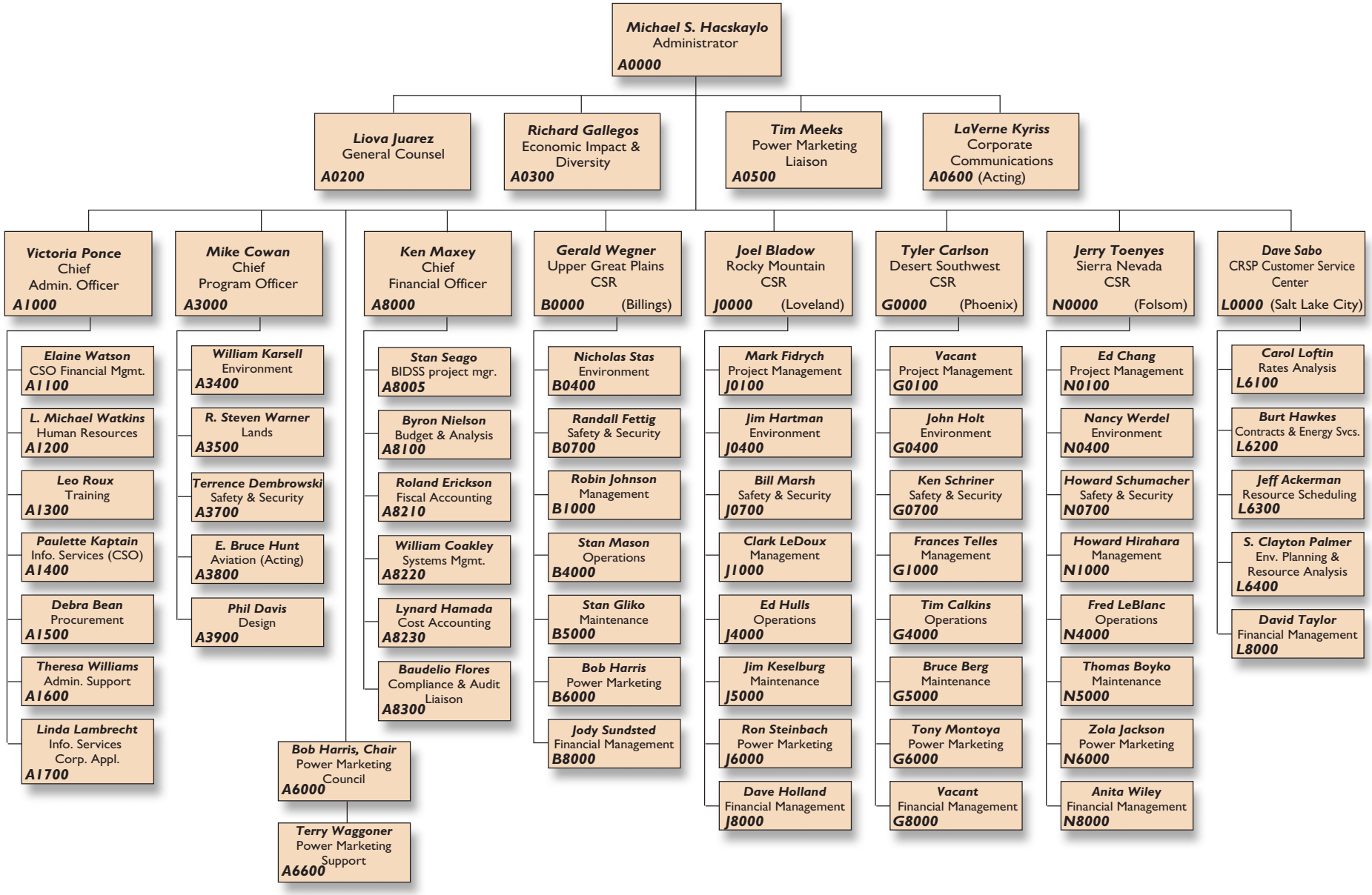

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Western
AREA POWER
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