Background

Authorizing Legislation

The Boulder Canyon Project Act (43 U.S.C. 617, et seq.), enacted by the U.S. Congress in 1928 (The 1928 Act), authorized the Secretary of the Interior to spend up to $165 million to construct the Boulder Canyon Project, consisting of Hoover Dam and related works on the Colorado River. The Dam was built for the expressed purposes of (1) controlling floods, (2) improving navigation of the Colorado River and its tributaries, (3) regulating the Colorado River, while providing storage and delivery of the stored water for reclamation of public lands, and (4) generating electrical energy as a means of making the Boulder Canyon Project a self-supporting and financially solvent undertaking. Construction of Hoover Dam, formerly known as Boulder Dam, began in 1930 and was completed in 1935. The Hoover Dam powerplant began generating electricity in 1937 for sale to utilities and other power contractors in the states of Arizona, California, and Nevada.

The 1928 Act generally required the Project's power users to repay Federal advances with interest within 50 years of the Project's completion. The 1928 Act was modified in 1940 by the Boulder Canyon Project Adjustment Act (43 U.S.C. 618, et seq.), which authorized the Secretary of the Interior to promulgate and to put into effect power rates based upon repayments period from June 1, 1937 to May 31, 1987; to reduce the interest rate from 4 percent to 3 percent per annum on unpaid Treasury advances; to require annual payments to the states of Arizona and Nevada in lieu of taxes levied; and to defer without interest until June 1, 1987, the repayment of the $25 million allocated to flood control.

In August 1984, Congress passed the Hoover Power Plant Act (43 U.S.C. 618, et seq.) (The 1984 Act) which authorized an uprating program (to replace aging electrical generation equipment and increase the capacity of existing generating and associated electrical equipment), construction of new visitor facilities, and construction of a Colorado River bridge crossing. The 1984 Act authorized up to $77 million (at October 1983 price levels) for the uprating and visitor facilities program, but did not authorize funding for the Colorado River bridge crossing. The 1984 Act required the Project's power users to repay appropriated funds with interest over a 50-year period; and it resolved legal disputes over how electrical generation would be allocated and sold after 1987 by requiring the Secretary of Energy to (1) offer 30-year renewal contracts to each existing power contractor; (2) offer new 30-year contracts for the additional power resulting from the uprating program to purchasers in Arizona, California, and Nevada; and (3) continue the practice of setting power rates for these contractors based on the cost of production.

The 1984 Act further required the uprating program be initially funded with advances to the Bureau of Reclamation from certain Boulder Canyon Project contractors. Fund advances would be returned to these contractors through credits on their monthly power bills. The 1984 Act also required an additional charge of 4.5 mills per kWh be assessed on energy sales to Arizona and an additional charge of 2.5 mills per kWh be assessed on energy sales to California and Nevada; all revenue resulting from the additional charge (surcharge) is transferred to the Lower Colorado River Basin Development fund. The 4.5 mills are collected to operate the Central Arizona Project (CRBP Act of 1968) and the 2.5 mills (CRBC Act of 1974) to pay a portion of the construction, operation, maintenance and replacement of salinity control units.

In 2007 Public Law 106-461 authorized the Secretary of Interior to produce and sell products and publications relating to the Hoover Dam, and deposit sales revenues into the Colorado River Dam fund.

In 2011 the Hoover Power Allocation Act amended HPPA to increase the Schedule A contingent capacity at Hoover Dam proportionally based on the maximum dependable operating capacity , and then reduces the Schedule A summer and winter firm energy by 5% of the amount to be provided after October 1, 2017, to existing Schedule A contractors.

<u>Description of Hoover Dam</u>

Hoover Dam is the highest and third largest concrete dam in the United States. The dam, and power plant, is located in the Black Canyon of the Colorado River along the Arizona-Nevada border. Lake Mead, formed behind Hoover Dam, is the nation's largest manmade reservoir and can hold a two-year supply of the average flow of the Colorado River with its storage capacity of 28.9 million acre-feet based upon an elevation of 1,221 feet. Waters impounded in Lake Mead are released when needed for use by downstream water users and for flood control. The Dam provides for the delivery of stored water for irrigation and other beneficial consumptive uses, as well as for the generation of electrical energy. The Hoover Dam powerplant has 19 generating units including the 2 house units, an installed capacity of about 2,080,000 kW (kilowatts), and annual average power generation of about 4 billion kWh (kilowatt-hours).

Hoover Dam is about 36 miles southeast of Las Vegas, Nevada, and the road atop the Dam is located at exit 2 on NV-172 just off of well-traveled highway U.S. 93. The Dam attracts approximately 700,000 visitors annually and has a new visitors' center and parking garage which were substantially completed and opened to the public in June 1995.

Hoover Dam is operated by the Bureau of Reclamation (Reclamation), U.S. Department of Interior[1]. In Fiscal Year 2014, Reclamation's staffing for the Boulder Canyon Project consisted of 267 personnel (57 vacancies) in such functions as administration, engineering, communications and control, maintenance, operations, and construction. Reclamation is responsible for the operation, maintenance, replacement, and repayment of the Dam, and power plant..

<u>Power Marketing and Transmission</u>

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[1] See Appendix for map of Reclamation's Regional Organization.

The Western Area Power Administration (Western), Phoenix Area Office, U.S. Department of Energy, is responsible for marketing and transmitting Boulder Canyon Project power. Western has a contract with each of the Project's 15 power users through September 30, 2017, and the contracts provide for: (1) the electric service to be furnished; (2) billings, repayment, and schedule of rates; (3) determination of revenue requirements, repayments periods, and rates; (4) resale of electric energy; (5) conservation and renewable energy program; (6) delivery conditions; and (7) contract capacity and energy entitlements.

The 1984 Act sets forth the amount of power sold to customers after June 1, 1987; and Western's 1986 General Regulations provide for a Base Charge for Project power, made up of a firm energy component and a contingent capacity component. The energy component is expressed in mills per kWh (e.g., 6.31 mills/kWh in Fiscal Year 2014) and is applied to each kWh made available to each contractor. The capacity component is expressed as a dollar per kW per year charge and is billed on a dollar per kW per month basis (e.g., $1.07/kWh in Fiscal Year 2014). The capacity component is applied each billing period to each kW of related output which each contractor is entitled by contract. The billing method, beginning in FY 1996, has been changed and is based on forecasted rates, followed by year-end adjustments to actual and resulting debits or credits to Contractors as appropriate.

Customers are entitled to receive approximately 4.527 billion kWh of firm energy each year. If generation at Hoover Powerplant is less than that, Western can purchase energy to make up the shortfall at the request of individual customers on a pass-through cost basis.

Power Customers

Boulder Canyon Project power is sold to 15 customers[2] which include:

- 10 municipalities in California
  (Cities of Anaheim, Azusa, Banning, Burbank, Colton, Glendale, Los Angeles, Pasadena, Riverside, and Vernon.)

- 1 municipality in Nevada
  (City of Boulder City)

- 1 state agency in Arizona
  (Arizona Power Authority)

- 1 state agency in Nevada
  (Colorado River Commission)

[2] See Appendix A-ES-3 for map of Power Sales Customers.

– 1 irrigation district in southern California
  (Metropolitan Water District of Southern California)

– 1 investor-owned utility in southern California
  (Southern California Edison Company)

The 11 municipalities accounted for 23.2 percent of energy sales in Fiscal Year 2014, and the other 4 customers accounted for 76.8 percent of the sales. About 55 percent of the energy sales were made to the customers in California.

Project Implementation Agreement

Reclamation, Western, and the 15 Contractors entered into a Project Implementation Agreement (Implementation Agreement, or Agreement), effective February 17, 1995, to resolve 11 issues: (1) replacements, (2) Visitor Facilities, (3) amending 10 CFR 904, (4) multi-project benefits and costs, (5) E&OC and Coordinating Committee, (6) billing and repayment, (7) working capital, (8) audits, (9) principal payments, (10) annual rate adjustment, and (11) uprating credits.

The Agreement recognized Reclamation and Western are required and desire to manage the Project's plans, programs, costs, and revenues in a manner that results in the power output of the Project being delivered to the Contractors at the lowest possible cost consistent with sound business principles. The parties to the Agreement also desired to establish a forum for the exchange of information and to share views regarding Contract administration – including the criteria, policies, and procedures by which the Project will be operated, maintained and kept in good repair.

Financial Data

BOR is the record keeper for financial reporting purposes. Key financial data for the Boulder Canyon Project includes the following:[3]

	As of September 30, 2014 ($ in thousands)		
	Western	Reclamation	Total
Assets	$15,280	$386,740	$402,020
Federal Investment Liabilities	0	34,123	34,123
Total Fed Inv/Liab.	$15,280	$420,863	$436,143

	Fiscal Year 2014 ($ in thousands)		
	Western	Reclamation	Total
Operating Revenues	$1,078	$217,403	$218,482
Operating Expenses	4,386	193,718	198,104
Net Operating Revenue			20,378
Net Interest Expense			5,150
Net Revenues			15,228
Begin Year Fund Balance			20,815
Fund Balance, End of			$36,043

[3] See Appendix A-ES-4 for Financial Statements, Fiscal Years 1987-1994

Year

The above financial data reflect the FY 2014 Boulder Canyon Project assets totaled $436 million. The assets include but are not limited to the dam, dam appurtenances, generating machinery, equipment, cash and accounts receivable. Federal Investment denotes $2 million of appropriated funds invested in the Project. Liabilities of $32 million consist largely of amounts owed to the uprating Contractors for funds advanced to the Project.

Operating Revenues of $218 million in FY 2014 consisted primarily of sales of electric power to the 15 power customers. Expenses of operating the dam and transmitting the power totaled $198 million. Revenue from the 15 power Contractors is recorded on Reclamation's records. (Revenues and expenses are inflated by approximately $123 million due to payoff of U.S. Treasury loan balances for the Visitor Center and Air Slots. The Visitor Center generated revenues of $13.5 million. These revenues were the result of visitation being at 656,651. Expenses incurred to operate the Visitor Center were approximately $9.7 million with a net operating income of $3.8 million. The Boulder Canyon Project's overall total net revenue in FY 2014 was $36 million (i.e., revenue in excess of expenses.)

In FY 2013 the Bureau of Reclamation converted their financial system. Prior to FY 2013 the system was known as Federal Financial System (FFS) which was proprietary based. The newly converted system, Finance & Business Management System (FBMS) has been operational since October 1, 2013 and is SAP based.