

## ELECTRIC SYSTEMS

FY 2005/06	FY 2006/07	FY 2007/08	FY 2008/09	FY 2009/10	Total
\$150,634,878	\$45,671,510	\$151,340,286	\$44,429,235	\$49,127,285	\$441,203,194

<u>Project Name</u>	<u>FY 2005/06 Adopted</u>	<u>Project Total/5 Year Total (1)</u>	<u>Description</u>
Transmission and Distribution	\$14,362,562	\$54,301,822	Enhance the reliability and capacity of the 69kV and the 12kV systems throughout the City. Two projects are planned to support the Roosevelt Park and Anaheim substations. Projects are also planned to support Cal Trans and Disney.
System Capital Project Management	57,824,000	186,066,700	Allows for electric systems planning/reliability infrastructure improvement projects such as a new generation project and the Lewis Extension project, which provides a second 230kV interconnection and additional substation and transmission capacity.
System Undergrounding	23,243,680	63,927,556	The program consists of the conversion of overhead power and communication lines to new underground electrical and communication systems. Projects are implemented using the criteria of geographical diversity, coordination with other City projects, City image, engineering options, and available funds.
Property Management	10,037,000	12,221,000	This program allows for the procurement and leasing of land for transmission, substations, easements, etc., to support the 69kV and 12kV systems.
San Onofre	6,293,102	8,511,930	Anaheim is a co-owner with a 3.16% share of this two-unit nuclear generating station.

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New Substations	\$20,500,000	\$42,383,000	Within the next two years, the new Roosevelt and Anaheim substations are planned to be built.
Substation Improvements	2,720,000	5,990,000	Upgrade/replace substation equipment such as transformers, circuit breakers, switchgears, and various switches in the ten existing 69/12kV substations.
System Expansion	3,078,065	17,717,216	Expansion of electrical facilities to serve new and/or upgraded residential, commercial, or industrial properties/developments, and related underground line extensions to meet forecasted growth.
Control Improvements	1,590,000	8,505,002	Fifty overhead switches, five underground vaults, and two substations have been identified for automation.
SCADA & Telecommunication	2,338,500	9,347,858	Fiber optics communications will be expanded in conjunction with the new substation projects. System Control and Data Acquisition (SCADA) communication infrastructure is being expanded to support distribution automation and substation automation projects.
Service Enhancement Projects	1,588,740	4,975,840	Projects include automatic meter reading, improvements in E-commerce, computer equipment replacement, replacement of the Customer Information System (CIS), document imaging, field mobile data, Automatic Call Directory (ACD) system, barcode system warehouse, AS 400 upgrade, work management system, and upgrading the Integrated Voice Response (IVR).

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Transformers/ Capacitors	\$1,751,868	\$9,144,507	Provide transformers, overhead, pad-mounted and submersible, and capacitor banks for all capital projects.
Telecommunica- tion Projects	1,181,773	4,380,256	This project implements design and construction of projects to upgrade and expand the fiber optic infrastructure to the Electric, Water and City facilities; purchases 800 MHz dispatch radios and implements spare fiber optic leasing activities.
System Protection	550,000	2,612,001	Upgrades of protective relays, which enhance reliability and provide necessary features to the protection, testing and monitoring of the system.
System Reliability Improvements	279,000	1,399,000	This program allows for electrical system planning/reliability studies including required California Environmental Quality Act (CEQA) studies.
Streetlight Requests	394,457	2,229,481	Install streetlights at the request of various City departments. Expenses are reimbursed by the department requesting the streetlights.
Geographic Information System (GIS)	247,681	1,376,945	An overall strategy of Electric GIS was developed and is being implemented. It includes the streamlining of data maintenance, development of integrated services in various formats, tangible projects, and special projects.

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Combustion Turbine	\$1,000,000	\$2,500,000	For pre-construction, including planning and design, environmental, engineering, and legal consultants for licensing through the California Energy Commission, and for financial consultants for bond financing for 170MW of additional peaking generation within the City.
San Juan 4 Generation Project	959,450	2,918,080	A lawsuit settlement requires Publicservice New Mexico (PNM) to upgrade several components of air emission improvements including low-Nox burners, compact hybrid particle collector, mist eliminators to improve SO2 emissions and activated carbon injection to reduce mercury emissions.
HRSG Economizer Bundle Replace- ment	695,000	695,000	Heat Recovery Steam Generator (HRSG) increases the electric output of the plant. Cracks in tubes of the HRSG that have 45 degree angles have been discovered. This project will replace the economizer tubes with ones that do not have 45 degree angles.

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