Additionally, enforceability of the rights and remedies of the Owners of the 2013A Bonds, and the obligations incurred by the City, may become subject to the following: the federal Bankruptcy Code and applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting the enforcement of creditor's rights generally, now or hereafter in effect; equity principles which may limit the specific enforcement under State law of certain remedies; the exercise by the United States of America of the powers delegated to it by the Constitution and the reasonable and necessary exercise, in certain exceptional situations, of the police powers inherent in the sovereignty of the State and its governmental bodies in the interest of serving a significant and legitimate public purpose. Bankruptcy proceedings, or the exercise of powers by the federal or State government, if initiated, could subject the Owners of the 2013A Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise, and consequently may entail risks of delay, limitation or modification of their rights.

PASADENA WATER AND POWER

The City is a charter city of the State. Under the provisions of the California Constitution and Article XIV of the Charter, the City owns and operates both water and electric public utilities for the benefit of its residential and business community. PWP is under the management and control of the City Manager, subject to the powers and duties vested in the City Council, and is supervised by the General Manager who is responsible for design, construction, maintenance and operation of the water and electric utilities. PWP is responsible for the Electric System and the City's water system (the "Water System").

In addition to the Electric System and the Water System divisions, PWP is organized into five separate business units. This structure allows for a higher level of accountability as well as the creation of individual cost centers and profit centers. This information is used for tracking costs and supplying detailed information in rate design decisions. These business units are briefly described as follows:

General Manager's Office-Customer Relations & Legislative Business Unit – This Unit is part of the General Manager's Office and is responsible for customer relations, regulatory affairs, and strategic planning and long-term resources. This Unit is also responsible for environmental and legislative matters impacting the utility.

Finance, Administration and Customer Service Business Unit – This Unit develops and executes PWP's overall financial strategy and ensures its financial integrity. This Unit is responsible for the financial resources of PWP and for providing relevant information to the operating units for decision making purposes. This Unit plans and oversees the financial aspects, administrative support functions and all cross-functional operations and systems for PWP. The responsibilities of this Unit include the operating budget, capital budget and financing, financial analysis and planning, financial management, administration, billing, call center, meter reading and customer care services, risk management, information systems and technology and materials management.

Power Supply Business Unit – This Unit is responsible for effectively managing PWP's energy portfolio, including power generation, long-term power contracts, short-term electric energy and ancillary services transactions and natural gas procurement to provide competitively-priced energy to PWP's electric customers. This Unit is also responsible for energy scheduling and load dispatch operations to ensure reliable delivery of electricity.

Power Delivery Business Unit – This Unit is responsible for the design, construction, operation and maintenance of the local power distribution system to provide the safe and reliable delivery of electricity and is responsible for implementing the Power Master Plan.

Water Delivery Business Unit – This Unit is responsible for the procurement, production and delivery of water. This Unit operates and maintains the local water supply resources and distribution system.

The following are biographical summaries of PWP's senior management:

PHYLLIS E. CURRIE, General Manager. Ms. Currie joined PWP in 2001 as General Manager. She previously worked for the City of Los Angeles for 32 years in various capacities. Prior to coming to PWP, she was, and had been for seven years, Chief Financial Officer for the Los Angeles Department of Water and Power ("LADWP") where she managed its financial affairs, including LADWP's joint ventures and partnerships, such as the Southern California Public Power Authority (SCPPA) and the Intermountain Power Agency (IPA) in Utah. She led the development of financial strategies to position LADWP to compete in a deregulated industry. From 1984 to 1992, she was Assistant City Administrative Officer overseeing development of the annual operating and capital budgets, including debt finance. Ms. Currie earned a bachelor of arts degree in Political Science and a master's degree in Business Administration from the University of California at Los Angeles. She also completed the Program for Senior Executives in State and Local Government at the John F. Kennedy School of Government at Harvard University. She currently serves as the President of the California Municipal Utilities Association and recently completed a term as the Chair of the American Public Power Association.

ERIC KLINKNER, Assistant General Manager & Chief Deputy. Mr. Klinkner has been with PWP since 1995. He served as PWP's Manager of Power Resources and Business Unit Director for Power Supply and was appointed to his present position in August 2004. In his current position, he is responsible for regulatory affairs, strategic planning and long-term resource and environmental issues. Mr. Klinkner is also responsible for legislative issues impacting PWP and oversees the customer relations, marketing and customer communications functions. Mr. Klinkner previously worked at LADWP where he started in power resource planning. He has a master's degree in mechanical engineering from California State University-Northridge and is a state registered professional engineer.

SHARI M. THOMAS, Assistant General Manager for Finance, Administration and Customer Service. Ms. Thomas joined PWP in January 2006. She began her career with the City of Pasadena in 2002 as the Deputy Director of Finance. She previously worked for the City of Riverside for nearly 15 years in various financial positions. Ms. Thomas is currently responsible for financial planning and budgeting, cost of service analysis and rate setting, information technology for PWP and customer service. She is also responsible for risk management and settlements functions related to energy transactions and the materials handling and inventory management activities. She completed her bachelor of science degree with majors in Accounting and Finance in Minnesota and has also completed the University of Wisconsin's Advanced Governmental Finance Institute.

GURCHARAN BAWA, Assistant General Manager for Power Supply. Mr. Bawa has been with Pasadena Water and Power for 17 years working in the Power Production field managing regulatory and environmental issues. He most recently has been responsible for evaluating renewable energy resources and incorporating these assets into Pasadena's overall energy resource portfolio. He is also responsible for managing long term energy resources and contracts. He received his Mechanical Engineering degree from S.V.R. College of Engineering and Technology, Surat, India. He is a licensed Professional Engineer in the State of California.

JOE AWAD, Assistant General Manager for Power Delivery. Mr. Awad joined PWP in July 1998 as the Customer Service Manager. He is currently responsible for managing the power engineering program for design and construction of capital improvement and maintenance programs in

Power Distribution. He worked for 18 years for LADWP in engineering, marketing and customer service functions. Mr. Awad obtained his master's degree in Mechanical Engineering from the University of Michigan and is a Registered Professional Engineer in the State of California.

SHAN KWAN, Assistant General Manager for Water Delivery. Mr. Kwan has been with PWP since 1985. Prior to his appointment as Assistant General Manager for Water Delivery, Mr. Kwan was a principal engineer in the Water System. He worked in water distribution, plant and facilities, quality and supply and resource planning. Prior to his employment with PWP, he was a construction inspector for Caltrans. Mr. Kwan holds a bachelor's degree in civil engineering from University of California at Los Angeles and a master's degree in business administration from Claremont Graduate University.

THE ELECTRIC SYSTEM OF PWP

General

The Electric System of PWP began generating its own electric energy and distributing power in 1906. Electric service was previously supplied by Edison Electric Company, predecessor to Southern California Edison Company ("SCE"). PWP has continued to expand its electric distribution system to meet the demands of its residential, commercial, industrial and public sector customers. The Electric System provides service to virtually all of the electric customers within the limits of the City. For the Fiscal Year ended June 30, 2013, the customer base was comprised of 56,311 residential customers, 8,522 commercial and industrial customers, and 3 street lighting and traffic signals customers. The service area is approximately 23 square miles, with a current estimated population of approximately 140,000.

The Electric System includes generation, transmission and distribution facilities. The City also purchases power and transmission service from others. The Electric System's current 375 MW resource mix includes 175 MW of local steam and gas turbines, 15 MW small hydroelectric (Azusa Hydroelectric) and 185 MW of long-term purchase contracts (remote generation) from a variety of sources including hydroelectric, coal and nuclear generating units and a variety of renewable energy resources including wind, solar, geothermal and biogas projects. Although these resources are more than sufficient to meet the City's loads, a portion of the Electric System's energy supply is purchased when it is more economical, on the wholesale hourly, daily and month-ahead spot markets. See "– Purchased Power – *Bilateral (Spot Market) Energy Purchases.*"

Legislation affecting the electric utility industry is routinely introduced or enacted by the federal government and the California Legislature. In recent years, the enacted bills primarily regulate greenhouse gas emissions and provide for greater investment in energy-efficiency and environmentally friendly generation alternatives through more stringent renewable resource portfolio standards. PWP's generation and transmission operating and long-term plans are developed and executed in accordance with existing law and in response to pending legislation. See "DEVELOPMENTS IN THE CALIFORNIA ENERGY MARKETS" and "OTHER FACTORS AFFECTING THE ELECTRIC UTILITY INDUSTRY."

Valuation of Electric System Facilities

The following table sets forth the valuation of the Electric System facilities during the five Fiscal Years shown.

TABLE 3
ELECTRIC SYSTEM FACILITIES

	Fiscal Year Ended June 30,				
	2009	**2010**	**2011**	**2012**	**2013**[1]
Utility Plant	$534,697,206	$568,879,517	$569,017,087	$587,915,661	$617,981,283
Less Accumulated Depreciation	(264,808,429)	(281,561,663)	(286,950,419)	(304,465,739)	(320,986,700)
Construction in Progress	46,884,402	58,287,645	70,442,021	73,525,875	73,525,875
Total Facilities	$316,773,179	$345,605,499	$352,508,689	$356,975,797	$370,520,458

[1] The information for the Fiscal Year ended June 30, 2013 is based upon unaudited preliminary information as of June 30, 2013.
Source: Finance and Administration Business Unit of PWP.

Power Supply Resources

The Electric System increased its power production for several consecutive years primarily as a result of increased energy sales to the CAISO when called upon to meet regional demand.

In Fiscal Year 2012-13, PWP generated approximately 148 gigawatt hours ("GWh") from its local resources and purchased approximately 1,218 GWh from long-term contracts and the spot market. PWP's total supply decreased by 0.7% in Fiscal Year 2012-13 compared to the prior year. The system peak demand in Fiscal Year 2012-13 was 292 MW.

The following table sets forth the total power generated and purchased and peak demand during the five Fiscal Years shown.

TABLE 4
TOTAL POWER GENERATED AND PURCHASED: PEAK DEMAND (MWh)

	Fiscal Year Ended June 30,				
	2009	**2010**	**2011**	**2012**	**2013**[1]
Generated	119,556	123,757	106,147	147,749	168,485
Purchased	1,429,363	1,295,905	1,286,858	1,248,368	1,217,908
Total Supply	1,548,919	1,419,662	1,393,005	1,396,117	1,386,393
Sales and Losses	(263,288)	(186,966)	(194,491)	(228,681)	(187,505)
Net System Load	1,285,631	1,232,696	1,198,514	1,167,436	1,198,888
System Peak Demand (MW)	287	293	320	307	292

[1] The information for the Fiscal Year ended June 30, 2013 is based upon unaudited preliminary information as of June 30, 2013.
Source: Finance and Administration Business Unit of PWP.

The following table sets forth information concerning the City's power supply resources and the energy supplied by each resource during the Fiscal Year ended June 30, 2013.

TABLE 5
POWER SUPPLY RESOURCES

Source	Name-plate Capacity (MW)	Rated Capacity (MW)[1]	Actual Energy (GWh)[2]	Percent of Total Energy
Pasadena-Owned Generating Facilities:				
Steam (Broadway)	71	65	91.0	6.57%
Combustion Turbines (Glenarm)	124	110	76.6	5.52
Steam (Broadway) Green BioMethane		--	0.9	0.06
Combustion Turbines (Glenarm) Green BioMethane		--	--	--
Hydroelectric (Azusa)	3	2	2.1	0.15
Joint Power Agency/Remote Ownership Interests:				
Intermountain Power Project (IPP)	--	108	644.9	46.52
Palo Verde Nuclear Gen. Station (SCPPA)	--	10	82.8	5.97
Magnolia Power Project (SCPPA)	--	19	9.5	0.68
Magnolia Power Project (SCPPA) Green BioMethane		--	47.0	3.40
Hoover Project	--	20	51.4	3.71
Renewable Resources	--		206.8	14.92
Purchased Power[3]				
Bonneville Power Administration Contract	--	15	12.4	0.89
Market	--	--	161.0	11.61
Total		347	1,386.4	100.00%
Wholesale Sales and Losses	--	N/A	(187.5)	(13.52)
Net System Load	--	N/A	1,198.9	86.48%

Source: Finance and Administration Business Unit of PWP.
(1) Rated net capacities as of June 30, 2013. For Broadway and Glenarm – CAISO rated, for all others maximum contractual entitlement during summer peak.
(2) Preliminary data; gigawatt hours provided during the twelve-month period ended June 30, 2013.
(3) Entitlements, firm allocations and contract amounts.

City-Owned Generating Facilities

The Electric System's resource mix includes local steam and gas turbines, a hydroelectric plant and long-term purchase contracts from a variety of sources including hydroelectric, gas-fired, coal and nuclear generating units. In recent years, PWP has developed programs in response to regional power shortages, energy price volatility, and stricter emissions control requirements adopted by the SCAQMD. Currently, PWP owns and operates one natural gas steam generating unit (Broadway 3) at the Broadway facility, and four gas-fired combustion turbines ("GTs") located at the adjacent Glenarm facility. In addition to the Broadway and Glenarm facilities, the City owns the Azusa Hydroelectric Plant, which is interconnected to the SCE power distribution system. Each of these resources is more fully described below.

Broadway Power Plant. The Broadway Power Plant includes one steam generating unit at the facility, Broadway 3. This unit is connected to the CAISO control center via remote intelligent gateway and is certified to provide spin, non-spin, and replacement reserves. The current Broadway 3 generator is approximately 47 years of age and is expected to remain in service until 2016 when replacement

generation, the Repowering Project, is expected to be placed into service. See "*Repowering Project*" below.

Glenarm Power Plant. The Glenarm Power Plant includes four natural gas-fired combustion turbine unites. Two of the units, designated as Glenarm 1 and 2 generators (GT1 and GT2), are identical 23 MW (rated net output) gas-fired combustion turbine units built in 1975. Historically, operation of these units has been limited to high peak or emergency conditions.

On May 4, 2010, the GT1 power turbine was severely damaged by mechanical failure and a subsequent fire. The incident destroyed the power turbine and severely damaged the enclosure. There were no injuries to PWP personnel. Repair of GT1 was completed in August 2013 and the repaired unit is currently undergoing final tests. It is expected to be returned to full service by November 2013.

In October 2012, the GT2 power turbine was severely damaged by mechanical failure and a subsequent fire. The incident destroyed the power turbine and severely damaged the enclosure. There were no injuries to PWP personnel.

Investigations and inspections of GT2 have been completed and a final determination has not been reached whether the unit will be repaired. An agreement has been reached with the insurance provider(s) that provided a reimbursement of approximately $7.9 million to PWP for the "Actual Cash Value" (replacement value less depreciation) of the damaged unit. PWP will conduct a feasibility study regarding options to repair or replace GT2. Due to system constraints, the City has determined that it will need to maintain at least 200 MW of generation in aggregate at its Broadway and Glenarm sites.

The Glenarm Power Plant also includes two 45 MW simple-cycle combustion turbines located on PWP's Glenarm property (adjacent to Broadway) and designated as Gas Turbine Unit 3 and Unit 4 (GT3 and GT4). GT3 and GT4 turbines were added as part of PWP's Local Generation Repowering Project, and provide higher efficiency, superior operational flexibility, and 98% reduction in NOx emission rates. These units are primarily scheduled to economically meet PWP's intermediate and peaking loads. Excess capacity, operating under the CAISO Participating Generator Agreement, provides ancillary services and energy to the CAISO market. See "– Inter-Utility Sales Transactions – *CAISO-Participating Generator Agreement.*" When imports are limited due to tie-line outages, or when loads reach about 200 MW, at least one unit is put on line for reliability purposes. Due to their relatively high cost of generation, utilization of these units is typically limited to periods when energy and ancillary service prices are economically favorable to support such utilization. The value provided by these units is in their "optionality." "Optionality" refers to the ability to quickly adjust operating levels to changing market and load conditions.

Azusa Hydroelectric Plant. The Azusa Hydroelectric Plant is a 3 MW hydroelectric plant located in the San Gabriel River Basin. The Azusa Hydroelectric Plant is interconnected to the SCE power distribution system. Energy is accumulated and delivered to the City by SCE through an agreement which provides for deliveries at rates up to 15 MW. The Azusa Hydroelectric Plant has historically delivered approximately 10 gigawatt hours ("GWh") of energy to the City annually. In 2003, extensive blockage of, and damage to the plant's conduit system was discovered, requiring the plant to be taken out of service. Repair and restoration of the plant was completed in 2004 and the plant returned to full service. However, deliveries in recent years have decreased to minimal volumes due to adverse water flow conditions. In August 2013, PWP completed the seismic retrofit of the penstock and by-pass pipe making these structures compliant with current seismic code.

Repowering Project.

Background. The Energy Integrated Resource Plan, which was adopted by the City Council in 2009 and updated in 2012, serves as a 20-year blueprint for PWP to deliver reliable, environmentally responsible electricity service at competitive rates. A key feature of the Energy Integrated Resource Plan is the replacement of the existing steam generating unit at the City's Broadway Power Plant, referred to as "Broadway 3" (see "THE ELECTRIC SYSTEM OF PWP – Power Supply Resources – Broadway Power Plant), with the Repowering Project. The Repowering Project will be located on the site of the City's existing Glenarm Power Plant, which currently includes four gas-fired combustion turbine units, adjacent to the Broadway Power Plant.

The objectives of the Repowering Project include the following:

- Maintain the City's ability to generate power locally when needed, to ensure sufficient power supply, and in order to make up for any shortfall due to import or distribution system constraints;

- Replace the 47-year old steam generating Broadway 3 unit that has achieved and exceeded its design life and provide for mandated capacity (*i.e.*, guarantee of availability) to generate power when required by California Independent System Operator ("CAISO");

- Provide a means to operate the Electric System efficiently and reliably by managing excessive generation and compensate for the intermittency of renewable resources; and

- Balance reliable electricity service and competitive and stable rates with consideration of environmental concerns, and reduced dependence on coal power.

Project Description. The Repowering Project consists of a combined cycle natural gas-fired powered generating plant with a full load rating of 71 MW (gross) and appurtenant facilities located in the City. The plant consists of a combustion turbine, once-thru steam generator capable of running dry, a selective catalytic reduction pollution control system, a steam turbine, two electric generators, control and administrative facilities, wet mechanical draft cooling towers, electric driven gas compressors, and a three-winding step-up transformer. The new unit will use the existing gas-insulated breaker of the existing steam unit after it is retired. The gas turbine will be manufactured by General Electric, the steam turbine by Shin-Nippon, and the once-thru steam generator by Innovated Steam Technology. The Repowering Project utilizes water injection with selective catalytic reduction for NOx control and an oxidizing catalyst for carbon monoxide control as required by South Coast Air Quality Management District ("SCAQMD") in order to meet the best available control technology/lowest achievable emission requirements. The air permit for the Repowering Project allows the unit to operate at 8,760 hours per year with 750 starts per year, 155 starts per month, and 5 starts per day. The existing Broadway 3 unit will be retired once the new combined cycle plant is commercially operable.

Fuel Supply. The generating plant will be fueled entirely by natural gas. The Southern California Gas Company provides transportation of natural gas to the generating plant site. The new unit will utilize the existing gas metering station located near the existing facility for its fuel supply.

Water Supply and Wastewater Discharge. The Pasadena Water Department will be the source of water supply for the Repowering Project. Water infrastructure serving the site consists of water mains located in the adjacent streets. Currently, there is a twelve-inch PWP-owned water main on East State Street, Fair Oaks Avenue and Glenarm Street. The existing water supply infrastructure will provide water supplies for plant operation, domestic uses and fire-fighting purposes.

Wastewater from the Repowering Project will be discharged to a local sewer line for conveyance to the Los Angeles County Sanitation District's ("LACSD") 16-inch Arroyo Seco Trunk Sewer, located in Garfield Avenue at the Pasadena Freeway. The wastewater will be treated at the LACSD Whittier Narrows Water Reclamation Plant located near the City of El Monte, or the Los Coyotes Water Reclamation Plant in the City of Cerritos. The Repowering Project will operate under the existing LACSD Wastewater Discharge Permit.

Permits, Licenses, and Approvals. The Environmental Impact Report for the Repowering Project was certified by the City Council in 2013 and the air permit has been secured from the SCAQMD. PWP believes that all other future permit, licenses, and approvals, and renewal thereof, will be routine in nature and will be granted in a timely manner.

Joint Powers Agency Generation and Fuel Resources/Remote Ownership Interests

General

The City has purchased ownership interests in the Intermountain Power Project ("IPP") of the Intermountain Power Agency, a political subdivision of the State of Utah ("IPA"). In addition, the City and other public agencies in Southern California are members of the Southern California Public Power Authority ("SCPPA"), a joint powers agency created for planning, financing, developing, acquiring, constructing, operating and maintaining electric generating and transmission projects for participation by some or all of its members. The City is a participant in the SCPPA portion of the Palo Verde Nuclear Generating Station ("PVNGS"), in the SCPPA Magnolia Power Project, in the SCPPA Milford Wind Corridor Phase I Project and in the SCPPA Prepaid Natural Gas Project. The City also has a remote ownership interest in the Hoover Hydroelectric Project and, through SCPPA, a Natural Gas Project relating to natural gas fields located in Wyoming and Texas. In most cases, staff unrelated to the City's bargaining units provide operating, maintenance, engineering, energy management and administrative services for such projects. Labor and related costs are charged to the related joint powers agency or other public agency. The City is informed that labor agreements are in place with each respective bargaining group but cannot give any assurances as to future agreements or the status of negotiations. Each of these resources is briefly described below.

Intermountain Power Agency

The following information has been obtained from the IPA and sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

IPA Intermountain Power Project Interest. The IPA has constructed and placed into commercial operation the IPP. The City has entered into certain power purchase contracts with the IPA and others to purchase certain entitlements of IPP and related facilities. The IPP consists of (a) a two unit, 1,800 MW net coal-fired, steam electric generation station and a switchyard located near Lynndyl, Utah; (b) the Southern Transmission System (see "– Transmission Resources" below); (c) two 50-mile 345 kilovolt alternate current ("kV AC") transmission lines from the generation station to a switchyard in the vicinity of Mona, Utah and a 144-mile 230 kV AC transmission line from the generation station to a

switchyard near Ely, Nevada (collectively, the "Northern Transmission System"); (d) a railcar service center; (e) a microwave communications system; and (f) certain water rights and coal supplies.

There are 36 utilities (collectively, the "IPP Purchasers") that purchase the output of the IPP generating station, consisting of the City, and the California cities of Los Angeles, Anaheim, Burbank, Glendale and Riverside (the "IPP California Participants"), PacifiCorp (which merged with Scottish Power), as successor to the obligations of Utah Power & Light Company, 22 members of IPA and Heber Light & Power Company, and six rural electric cooperatives serving loads in the States of Utah, Arizona, Colorado, Nevada and Wyoming. Pursuant to a Construction Management and Operation Agreement between IPA and LADWP, IPA appointed LADWP as project manager and operating agent responsible for, among other things, administering, operating and maintaining the IPP. The facilities of the IPP have been in commercial operation since May 1, 1987.

The City has two separate contracts with the IPA and certain Utah participants (the power sales entitlement contract and the excess sales contract, respectively, as further described below) which currently provide the City with a 108 MW (6%) entitlement in the facility. After accounting for transmission losses, the City receives approximately 103 MW of generating capacity. Approximately 750 GWh of energy are delivered to the City from IPP each year. See "TABLE 5 – POWER SUPPLY RESOURCES."

Transmission of the output from IPP to the City and the other IPP California Participants is provided by the Southern Transmission System (see "– Transmission Resources" below).

IPP has been financed entirely with debt issued by IPA, of which approximately $1.8 billion principal amount was outstanding as of July 15, 2013, with a final maturity date of June 30, 2024. Debt service, net of projected investment earnings, constitutes in excess of 50% of IPA's total annual costs of owning, operating and maintaining IPP and is the major factor in IPP's power and energy costs. PWP is currently responsible for approximately $106.5 million principal amount or 6.00% of the IPA IPP outstanding debt. The City is a the payee of a subordinate note receivable from IPA in the approximate amount of $52.7 million as of June 30, 2013 due to the City's prepayment of a portion of its share of IPA's debt. See TABLE 9 – "OUTSTANDING DEBT OF JOINT POWERS AGENCIES" herein for details of the City's share of this debt.

Details of the contracts relating to the IPP are as follows:

Power Sales Entitlement. The City has contracted with IPA to purchase a 79 MW (4.409%) entitlement of the IPP plant. This contract obligates the City to pay its proportional share of the plant costs (including debt and other fixed expenses), regardless of the amount of energy scheduled to the City, for the life of the IPP bonds. Originally, the City had an entitlement contract with IPA and a layoff which it entered into on February 1, 1983 with Scottish Power (now PacifiCorp as noted above), whereby the City purchased a 16 MW share from Scottish Power, which allocation was subsequently increased to 18 MW. Thereafter, in 1991, the layoff contract and the power sales entitlement contract with IPA were combined into one contract resulting in the City's current 79 MW capacity entitlement. The term of the combined contract extends until all bonds issued by IPA to finance the IPP are retired.

Excess Sales Contract. The City and the cities of Burbank and Glendale and LADWP (the "California Excess Sales Purchasers") contracted with 27 sellers (the "Utah Participants") and IPA (acting as agent for the sellers) to purchase a 273 MW (17.057%) entitlement of the IPP plant which was deemed in excess of the sellers' needs. The California Excess Sales Purchasers agreed to split the excess among themselves in proportion to their original entitlements. The City's current share of the excess is 29 MW (7.556%). This contract also provides for access to the Northern Transmission System, which was built

with IPA funds in order to deliver power from the IPP to the Utah Participants. The term of this contract extends until the IPA bonds are defeased or the sellers' load requirements meet certain specified conditions; however, the Utah Participants have the unilateral right to recall their original entitlements at any time.

IPP Coal Requirement. The annual coal requirement for the IPP generating station is approximately 5.5 million tons. LADWP, in its role as operating agent of IPP, buys coal under contracts to fulfill this supply requirement of the IPP. Coal is purchased under a diversified portfolio of contracts that are of short-, medium- and long-term in duration, with pricing based on such factors as the fixed priced, the market and cost of production. LADWP has reported that from now through 2015, coal presently under contract is sufficient, with the exercise of available options, to meet the IPP's annual coal requirements, with lesser amounts of coal under contract for an additional two years thereafter. The average cost of coal delivered to the IPP generating station in Fiscal Year 2011-12 was approximately $44.53 per ton. During the prior Fiscal Year, the average cost of coal delivered was approximately $38.04 per ton. LADWP has reported that it expects the costs to fulfill IPP's annual coal supply requirements after 2015 will be higher than its current contract costs due to the continual turnover of mining properties in Utah, difficult mining conditions at the remaining mines, increased mining costs due to regulatory oversight, and the continued increase in rail transportation costs, among other things. To be able to continue to operate the IPP in the event of a coal supply disruption, IPA attempts to maintain a coal stockpile at the IPP generating station that is sufficient to operate the plant at the IPP's current plant capacity factors for a minimum of 60 days. Transportation of coal to the IPP generating station is provided primarily by rail under agreements between IPA and the Utah Railway and the Union Pacific Railroad companies, and the coal is transported in IPA-owned railcars. Coal can also be transported, to some extent, in commercial trucks.

IPP Water Supply. IPA owns off-site water rights that yield approximately 45,000 acre-feet per year. This amount exceeds the annual water requirements of the IPP generating station and the Intermountain Converter Station. A reservoir at the IPP generating station, in combination with groundwater wells, can provide sufficient water to operate for approximately three months at average plant loads.

Permits, Licenses and Approvals. According to the IPA, the IPP has been designed, constructed and operated in compliance with all applicable federal, state and local regulations, codes, standards and laws, and all principal permits, licenses and approvals required to construct and operate the IPP have been acquired, including permits relating to air quality and rights-of-way on federally-owned land.

Emissions. The IPP generating station's boiler and flue-gas cleaning facilities have been designed and constructed to meet applicable federal and state emission regulations. The boilers have been designed to meet stringent regulatory emission limits for oxides of nitrogen. The flue-gas desulfurization equipment (scrubber) for each unit consists of a wet scrubber system using a limestone reagent designed and constructed to remove at least 90% of the sulfur dioxide before discharge to the atmosphere from a chimney 710 feet in height. The flue-gas particulate control (baghouse) equipment for each unit consists of three modular fabric filters utilizing reverse air for cleaning. The equipment has been designed and constructed to remove at least 99.75% of the particulate material.

Waste Management. Substantial federal, state and local legislation and regulations regarding various aspects of waste management are in effect. Federal laws as set forth in acts such as the Federal Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments and Reauthorization Act, impose strict liability for cleanup costs and damages regardless of time or location on generators, transporters, storers and disposers of hazardous waste. Many day-to-day activities connected with the

generation and transmission of electricity generate both non-hazardous and hazardous wastes. Intermountain Power Service Corporation, under the direction of LADWP, has established a waste management plan for the IPP. The plan is designed to assure that the IPP's present and future operations conform to applicable waste disposal regulations. LADWP has also assessed IPP properties for potential liability arising from past, latent contamination. LADWP has indicated that its waste management program complies with all federal, state and local statutes and guidelines and all applicable permit requirements.

Operating Experience. The IPP facilities have operated to date with a high degree of availability, exceeding the average of coal-fired generating units of comparable size. During the Fiscal Year ended June 30, 2013, the IPP operated at a net capacity factor of 75.4%. In the Fiscal Year ended June 30, 2013, the IPP generating station provided 644,908 MWh of energy to the City at an average cost for delivered power of $63.72 per MWh (excluding transmission costs).

Intermountain Generating Station upon termination of the IPP Contract. [The current power purchase contracts with the IPA are in effect until 2027. In order to facilitate the continued participation of the IPP California Participants, the IPA Board has issued the Second Amendatory Power Sales Contract that would supercede the current power sales contracts and allow the plant to replace the coal units with combined cycle natural gas units before 2027. The IPP Purchasers, including the City, are considering future plans for IPP and possible alternative uses at the facility location. The City of Los Angeles recently announced its intention to eliminate its dependence on electricity provided by coal-fired resources by 2025. The future of coal-fired generation is uncertain and the potential alternative uses for IPP are being considered.]

Southern California Public Power Authority

The following information has been obtained from SCPPA and sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

SCPPA Palo Verde Nuclear Generating Station ("PVNGS") Interest. The City has contracted with SCPPA for a 9.9 MW (4.4%) entitlement of 225 MW SCPPA PVNGS Interest (as defined herein). This resource provides the City with approximately 65-75 GWh of baseload energy annually. The City has entered into a power sales agreement with SCPPA which obligates the City to pay the cost of its share of capacity and energy on a "take-or-pay" basis. For the Fiscal Year ended June 30, 2013, PVNGS provided an estimated _____ MWh of energy to the City at an average cost for delivered power of approximately $_____ per MWh. SCPPA has issued bonds for PVNGS of which $47,460,000 aggregate principal amount was outstanding as of July 15, 2013. SCPPA has undertaken certain actions, including collections of amounts in excess of operating and maintenance expenses and current debt service on its bonds for PVNGS to reduce the cost of power from this project. The City, as well as the Cities of Azusa, Banning, Burbank, Colton, Glendale, Los Angeles, Riverside and Vernon and the Imperial Irrigation District ("IID") are PVNGS project participants.

The SCPPA PVNGS Interest consists of a 5.91% ownership interest in the Palo Verde Nuclear Generating Station, Units 1, 2 and 3, and certain associated facilities and contractual rights relating thereto, a 5.44% ownership interest in the Arizona Nuclear Power Project ("ANPP") High Voltage Switchyard and contractual rights relating thereto and a 6.55% share of the rights to use certain portions of the Arizona Nuclear Power Project Valley Transmission System. PVNGS is located on an approximately 4,000-acre site about 50 miles west of Phoenix, Arizona. PVNGS consists of three nuclear electric generating units (numbered 1, 2 and 3), with a design electrical rating of 1,333 MWs (unit 1), 1,336 MWs (unit 2) and 1,334 MWs (unit 3) and a dependable capacity of 1,311 MWs (unit 1), 1,314 MWs (unit 2) and 1,312 MWs (unit 3). PVNGS's combined design capacity is 4,003 MWs and its

combined dependable capacity is 3,937 MWs. PVNGS Units 1, 2 and 3 achieved firm operation in January 1986, September 1986 and December 1987, respectively. Each PVNGS generating unit has been operating under 40-year Full-Power Operating Licenses granted by the Nuclear Regulatory Commission (the "NRC"). In April 2011, the NRC approved PVNGS's license renewal application, allowing the three units to extend operation for an additional 20 years until 2045, 2046 and 2047, respectively. Arizona Public Service Company ("APS") is the operating agent for PVNGS. Transmission is accomplished through agreements with Salt River Project Agricultural Improvement and Power District ("Salt River Project"), LADWP and SCE.

In 1997 SCPPA began taking steps designed to accelerate the payment of all fixed rate bonds relating to PVNGS. Such steps consisted primarily of refunding certain outstanding bonds for savings and accelerating payments by the PVNGS project participants on the bonds issued by SCPPA for PVNGS. The restructuring plan has resulted in substantial savings to the City, and the delivered cost of energy produced by PVNGS decreased significantly on July 1, 2004. See "– Indebtedness and Joint Agency Obligations" below and TABLE 9 – "OUTSTANDING DEBT OF JOINT POWERS AGENCIES."

The owners of PVNGS have created external trusts in accordance with the PVNGS participation agreement and NRC requirements to fund the costs of decommissioning PVNGS SCPPA's direct share of costs is $154.5 million, of which the City's portion is $6.8 million or 4.4%. Under the current funding plan, which was established based on the original license expiration in 2027, the City estimates that its share of the decommissioning costs are fully funded. Such estimates assume 6.83% per annum in future investment returns and a 6.0% per annum cost escalation factor. No assurance or guarantee can be given that investment earnings will fully fund the City's remaining decommissioning obligations at current estimated costs or that the decommissioning costs will not exceed current estimates.

The NRC has broad authority under federal law to impose licensing and safety-related requirements for the operation of nuclear generation facilities. Events at nuclear facilities of other operators or impacting the industry generally may lead the NRC to impose additional requirements and regulations on existing and new facilities. As a result of the March 2011 earthquake and tsunami that caused significant damage to the Fukushima Daiichi Nuclear Power Plant in Japan, various industry organizations are working to analyze information from the Japan incident and develop action plans for U.S. nuclear power plants. Additionally, the NRC is performing its own independent review of the events at Fukushima Daiichi, including a review of the agency's processes and regulations in order to determine whether the agency should promulgate additional regulations and possibly make more fundamental changes to the NRC's system of regulation.

On March 12, 2012, the NRC issued the first regulatory requirements for all 104 operating reactors located in the United States based on the task force evaluations. The NRC issued three orders that modify operating licenses by requiring the following safety enhancements: (1) mitigation strategies to respond to extreme natural events resulting in the loss of power at plants, (2) ensuring reliable hardened containment vents, and (3) enhancing spent fuel pool instrumentation. The orders require prompt implementation of the safety enhancements and to complete implementation within two refueling outages or by December 31, 2016, whichever comes first. On January 4, 2013, the NRC issued guidance to enable U.S. nuclear power plant operators to perform the seismic and flooding hazard assessments. The City does not yet know the extent to which the changes in the regulations, programs, and processes of the NRC as a result of the recommendations of the task force will affect PVNGS operations. The financial and/or operational impacts on PVNGS may be significant.

In the event of noncompliance with its requirements, the NRC has the authority to impose monetary civil penalties or a progressively increased inspection regime that could ultimately result in the

shut-down of a unit, or both, depending upon the NRC's assessment of the severity of the situation, until compliance is achieved.]

Magnolia Power Project. The City is a participant in the Magnolia Power Project, a gas-fired generating facility with a nominally rated net capacity of 242 MW and auxiliary facilities located in Burbank, California. Through a contract with SCPPA, the City is entitled to a 6.1% (15.5 MW base capacity and about 19 MW peaking capacity) entitlement in the project through a long-term power purchase agreement with SCPPA. SCPPA has entered into power sales agreements with the City and the Cities of Anaheim, Burbank, Cerritos, Colton, Glendale and Pasadena pursuant to which SCPPA has sold 100% of its entitlement to capacity and energy in the Magnolia Project to such participants on a "take-or-pay" basis. The Magnolia Power Project commenced commercial operation on September 22, 2005. SCPPA issued bonds to finance the construction of the Magnolia Power Project, of which $337,095,000 aggregate principal amount was outstanding as of July 15, 2013 (of which $12,175,000 relates exclusively to the City of Cerritos). PWP has entered into a power sales agreement with SCPPA for an approximate 6.1% participation share in the Magnolia Power Project and is therefore responsible for 6.1% of the costs of the Magnolia Power Project.

Prepaid Natural Gas Project. In 2007, SCPPA undertook the Prepaid Natural Gas Project, in which the City is a participant. The Prepaid Natural Gas Project provides, through Gas Sales Agreements with the participants in the Prepaid Natural Gas Project, for a secure and long-term supply of natural gas. The original agreement provided the City with a supply of approximately 2,000 MMBtu daily or 730,000 MMBtu annually at a discounted price below spot market price (the SoCal Index) for a 30-year term. The projected discount of approximately 90 cents per MMBtu was expected to result in savings of approximately $657,000 annually, or approximately $19.7 million over the 30 year term.

On October 22, 2009, the Gas Sales Agreement with SCPPA was restructured to provide an acceleration of a portion of the long-term savings over the succeeding three years, reduce the remaining volumes of gas to be delivered and shorten the overall duration of the agreement. The restructured agreement provided additional savings of approximately $2,700,000 through 2012 with the remainder to be realized over the new term of the transaction. Total expected savings from the project are not impacted by the restructuring. The restructured agreement will terminate in 2035 compared to the original termination year of 2038. The volumes of gas to be delivered are reduced from approximately 2,000 MMBtu to 1,340 MMBtu daily at a projected discount of approximately 98 cents per MMBtu. As a result of this restructuring, approximately $165,000,000 worth of outstanding aggregate principal bonds were retired. As of July 15, 2013, SCPPA had outstanding $317,555,000 aggregate principal amount of bonds issued for the Prepaid Natural Gas Project. SCPPA will bill the City for actual quantities of natural gas delivered each month. PWP expects that these costs will be recovered through the energy charge component of the electric rates as they are incurred, just as costs for natural gas purchases are currently recovered.

Milford Wind Corridor Phase I Project The City entered into a Power Sales Agreement with SCPPA for 2.5% (approximately 5 MW) of the output (including capacity, energy and associated environmental attributes) of Milford Wind Corridor Phase I Project, a 203.5 MW nameplate capacity wind farm comprised of 97 wind turbines located near Milford, Utah. The facility is owned by Milford Wind Corridor Phase I, LLC, a limited liability company organized and existing under the laws of the State of Delaware. The facility went into commercial operation on November 16, 2009. Energy from the facility is delivered over an approximately 88-mile, 345 kV, transmission line extending from the wind generation site to the IPP Switchyard in Delta, Utah, an ownership interest in which transmission line, together with certain structures, facilities, equipment, fixtures, improvements and associated real and personal property interests and other rights and interests necessary for the ownership and operation of the generation facility and the sale of power therefrom, comprise a part of the Milford facility. The City is

able to accept the delivered facility energy utilizing its capacity rights in the IPP Switchyard that are provided under agreements relating to the IPP. The facility energy is then delivered over the Southern Transmission System of IPP to the Adelanto or Marketplace terminal in California utilizing the City's capacity rights in the IPP Southern Transmission System and other transmission systems. See "– Transmission Resources – Existing Transmission Resources – *Southern Transmission System*" below. The facility energy delivered at Adelanto or Marketplace is then transmitted to the City under certain transmission arrangements between LADWP or the CAISO and the City and certain transmission arrangements between the City and Southern California Edison Company. As of July 15, 2013, SCPPA has outstanding $213,645,000 aggregate principal amount of bonds issued primarily for the purpose of prepaying for a guaranteed annual quantity of energy from the facility for approximately 20 years. See also "Renewable Resources – Current Renewable Projects" below.

Remote Ownership Interests

Hoover Hydroelectric Project Interest. The City has two power purchase agreements with the United States Department of Energy Western Area Power Administration for a combined total of up to 20 MW capacity from the generating units at the hydroelectric power plant of the Hoover Dam (the "Hoover Project"), located approximately 25 miles from Las Vegas, Nevada. The City's capacity is comprised of an 11 MW renewal and 9 MW resulting from the uprating. The actual capacity available from the Hoover Project varies, depending on hydrologic conditions, maintenance scheduling and other outages. Under normal hydrologic conditions, the City receives approximately 60 GWh of annual energy deliveries. On December 20, 2011, President Obama signed the Hoover Power Allocation Act of 2011 providing for the distribution of power from the Hoover Project through 2067. The Hoover Power Allocation Act of 2011 also mandated that each of then current power user give up 5% of its Hoover Project power resource so that a new pool is set aside for new allottees in the Hoover Project region. In the Fiscal Year ended June 30, 2013, the Hoover Project provided 51.382 GWh of energy to the City at an average cost for delivered power of $15 per MWh.

Natural Gas Project. The Natural Gas Project includes SCPPA's leasehold interests in (i) certain natural gas resources, reserves, fields, wells and related facilities located near Pinedale, Wyoming and (ii) certain natural gas resources, reserves, fields, wells and related facilities in (or near) the Barnett Shale geological formation in Texas. The capital costs of the entitlement shares purchased by certain participants were financed through SCPPA by the issuance of project revenue bonds. The City and the City of Glendale contributed capital to SCPPA for the payment of their respective shares of the capital costs of the Natural Gas Project. SCPPA has sold the entire production capacity of its member-related leasehold interests, on a "take-or-pay" basis (with the City and the City of Glendale having no obligation to pay any debt service). As of July 2013, the City does not take physical delivery of gas from the natural gas resources. Currently, the City receives proceeds from the sale of the gas at the production facilities. However, the City's agreement for sale of the gas can be rescinded at any time.

Purchased Power

In addition to City-owned resources and interests in the joint-venture generation projects, the City has long-term contractual arrangements for Electric System firm purchases, as well as enabling agreements, including Western Systems Power Pool ("WSPP") membership, which allow short-term power transactions in markets throughout the Western United States and Canada. Each of these resources is briefly described below.

Bonneville Power Administration Purchase Exchange Contract. The City executed a 20-year seasonal capacity for energy exchange agreement with the Bonneville Power Administration ("BPA") in May 1995 for up to an additional 15 MW of firm capacity (and attendant energy) in the summer. BPA

provides 15 MW of firm capacity and approximately 15 GWh of peak hour energy from May through September. Under the terms of the agreement, the City returns approximately 30 GWh of off-peak, non-firm energy from September through March. This contract provides capacity to the City through Fiscal Year 2014-15. The City is in negotiations with BPA to extend the agreement under similar terms.

Renewable Resource Purchases. The City has also entered into certain power purchase agreements in furtherance of its adopted renewable resource portfolio standard. See "– Renewable Resources" below.

Bilateral (Spot Market) Energy Purchases. Approximately 15-25% of PWP's annual energy needs are met through economic purchases of spot market power through short-term bilateral transactions. These transactions, which range in duration from one hour to one year, are made pursuant to the WSPP, of which the City has been a member since 1995. The WSPP is governed by a master enabling agreement with over 175 member utilities and power marketers that allows short-term transactions of one year or less for capacity, energy or transmission at negotiated market prices. This agreement replaced several obsolete agreements with individual utilities that typically had rate requirements above market price, while simultaneously providing access by the City to a much larger, growing market for bulk power transactions. In addition, this agreement allows for the purchase of firm capacity to meet spinning reserve requirements, providing the City with potential additional savings. In the event of excess electric and gas commodity and transmission capacity, the City enters into short-term bilateral sales transactions in order to offset costs.

Renewable Resources

General

The City of Pasadena has adopted a number of aggressive environmental goals, including a renewable portfolio standards (the "RPS") goal to supply 40% of its retail energy sales with renewable resources by 2020. Meeting the RPS goal is a key component of PWP's plan to reduce greenhouse gas emissions by 40% by 2020. These goals were adopted by the City Council as part of PWP's Energy Integrated Resource Plan.

Integrated Resource Plan

On March 16, 2009, the City Council approved, and in March 2012 updated, the Energy Integrated Resource Plan for PWP, a 20-year strategic power resource plan that establishes broad objectives and an overall direction for future policy, program and procurement decisions with respect to PWP's power supply resource portfolio. The Energy Integrated Resource Plan identifies PWP's preferred resource mix for satisfying its electric power requirements, consisting of energy efficiency, demand side management resources, renewable resources and other supply side resources over the 20-year planning horizon. Implementation of the identified preferred resource mix would include: (i) reducing PWP's reliance on its existing coal resources (IPP), (ii) replacing the aging steam generating unit at the Broadway generating facility and replacing it with a comparably sized new combined cycle plant, (iii) upgrading the existing Glenarm generating units in order to extend their operating lives, (iv) implementation of additional energy efficiency and load management programs, (v) increasing PWP's renewable resources consistent with the new RPS adopted by the City Council (see "– Renewable Resources – General" above), (vi) increasing PWP's customer-owned photovoltaic installations, (vii) establishing a feed-in tariff program in order to procure additional qualifying renewable resources located within the City and (viii) achieving CO_2 emission reductions of 40% by 2020. The Energy

Integrated Resource Plan is based on certain assumptions and forecasts and therefore is expected to evolve as it is implemented over the plan's 20-year time frame.

Current Renewable Projects

In order to meet the City's RPS targets as described under "Renewable Resources – General" above, the City will continue to procure additional renewable resources through SCPPA as well as independent negotiations with renewable resources providers. The following is a description of the City's current renewable projects: In addition to the long-term energy contracts described below, the City has entered into three bio-methane gas contracts for fuel to be burned in PWP local plants and Magnolia. Those contracts are described under "– Fuel Supply" below.

High Winds Wind Generation Facility. In 2003, the City Council approved a 25-year power sales agreement with SCPPA for the purchase of wind-powered electrical energy associated with a 6 MW (or approximately 17,500 MWh per year) share of the PPM (now Iberdrola Renewables ("Iberdrola")) High Winds wind generation facility. The High Winds Project is a 145.6 MW wind generation facility located in Solano County, California. Iberdrola is responsible for scheduling the wind energy as it is produced at the High Winds Project into the CAISO. Iberdrola re-delivers the associated energy on a firm 2MW basis to a delivery point in Southern California, providing PWP with a constant, reliable source of energy. The wind generation contract is in compliance with Senate Bill 1078 and the RPS. The contract increases PWP's renewable energy to approximately 17.5 GWh per year.

Landfill Gas Generator Projects. In 2004, the City Council approved a 20-year power sales agreement with SCPPA for the purchase of 6.67 MW of landfill gas generated electrical energy at the Ameresco, LLC, Chiquita Canyon Landfill Gas to Electricity generator project located in Valencia, CA. The project began operation in 2010 and produced approximately 41,500 MWh in Fiscal Year 2012-13.

In 2006, the City Council approved a 10-year power purchase agreement with Minnesota Methane (currently known as Fortistar Methane Group) for the purchase of 9.5 MW of landfill gas generated electrical energy at two separate locations, one in West Covina California, and the other at Tulare, California. These projects generated approximately 42,700 MWh of energy in Fiscal Year 2012-13.

Geothermal Project. In 2005, the City Council approved a 25-year power sales agreement with SCPPA for the purchase of 3.0 MW of geothermal generated electrical energy at the ORMAT geothermal generating project. Due to uncontrollable operational constraints the project and agreement were revised to a 2.1 MW share of the geothermal project producing approximately 17,500 MWh per year. The Ormat geothermal project is located in the service area of Imperial Irrigation District ("IID") in the Imperial Valley, California. The energy is delivered to the CAISO over the IID transmission system.

Milford Wind Corridor Phase I Wind Generation Project. As described above, the City is a participant in SCPPA's Milford Wind Corridor Phase I Project, a 203.5 MW wind generating facility located in Millard County, Utah and a power sales agreement with SCPPA for an approximately 5 MW (2.5%) share of the project. The project began commercial operation in November 2009. The project serves the goals established by the City's RPS for PWP and aids the City in achieving its environmental goals. This renewable resource helps PWP meet load without additional GHG emissions in alignment with Senate Bill 32 and Senate Bill 1368.

Windsor Reservoir Solar Project. On March 30, 2010, PWP issued a Request for Proposals for a rooftop photovoltaic solar project to be installed on City facilities. Of the 24 responses received, PWP chose to proceed with a 0.564 MW project to be installed by Martifer Solar, Inc. atop the PWP Water

Division's Windsor Reservoir. Completed and operational on May 31, 2011, the project generated approximately 920 MWh, or 0.08% of the Department's annual RPS requirements, of solar energy in Fiscal Year 2012-13. Through internal agreements, the renewable energy generated is purchased by the Power Division through bill credits to the Water Division. The credits benefit PWP's water customers through reduced operating costs of the Water Division.

Solar and Photovoltaic. PWP's solar program has been in existence since 1999 and has provided rebates to residential and nonresidential customers for the installation of grid-tied photovoltaic ("PV") systems. Annual funding for legacy customer PV programs between 1999-2007 averaged $100,000 and was focused on small residential systems due to the availability of state-funded incentives for systems larger than 30 kW. Typical residential PV systems range from 2-3 kW and provide 30%-80% of the customer's energy needs. Since 2008, the Pasadena Solar Initiative (PSI) program has offered incentives for PV systems up to 1 MW and provided 368 rebates to residential and 40 rebates to nonresidential customers, for a combined installed capacity of 4,532 kW. PWP's current incentives are based on either the expected performance (ranges from $0.85-$4.00 per watt) or actual performance (ranges from $0.0129-$0.632 per kWh). PWP's incentive rates per watt and Performance Based Incentives ("PBI")are indicated in the following chart:

Customer Class	Incentive ($/Watt)	PBI Rate ($/kWh)
Residential	$1.40	$0.212
Commercial	0.85	0.129
Non-Profit	1.60	0.242
Low-Income	4.00	0.632

Energy Efficiency Goals and Programs. Under the law, the City Council is charged with approving ten-year energy efficiency and peak demand reduction goals for PWP. The City Council adopted such goals in 2007, 2010 and 2013. The goals adopted in 2013 seek to achieve annual energy savings of 12,750 MWh and 2.3 MW demand reduction for each program year from Fiscal Year 2013-14 through Fiscal Year 2022-23, representing about 1% of annual energy sales and 0.7% of average annual peak demand forecast for the ten-year period. Compared to the goals adopted in 2010, the 2013 goal for energy savings is 23% lower and the 2013 goal for demand reduction is 40% lower on average over the respective ten year periods. PWP anticipates that total energy efficiency program expenditures will average $3.4 million to $4.5 million per year to achieve these goals, or about 2% to 2.5% of annual retail electric revenues. This represents a savings of approximately $1 million versus the funding that would be required to meet the prior energy efficiency goals adopted in 2010 for Fiscal Year 2013-14 through Fiscal Year 2016-17.

PWP currently offers a wide range of residential and business customer energy efficiency (EE) programs that are funded from PBC revenues. PWP's EE programs yielded an additional 13,337 MWh of energy savings per year and 2.5 MW of peak demand reduction during Fiscal Year 2011-12 at a cost of $3.4 million. Cumulatively sinc 2007, PWP's EE programs have saved 78,970 MWh and reduced peak load by 17.3 MW, exceeding the cumulative goals adopted by the City. Residential EE programs such as the Energy Star and Refrigerator Replacement Program are cost effective and very popular with residential customers. EE programs for nonresidential customers are composed of the Energy Efficiency

Partnering (EEP) and the new Water and Energy Direct Install Program (WE-DIP) and have encouraged EE conservation through incentives and technology facilitation.

PWP leverages its PBC funding through joint action with SCPPA that is coordinated through the SCPPA Public Benefits Committee. This has been particularly effective in procuring cost-effective efficient appliances and program services and consulting. The SCPPA Public Benefits Committee meets monthly to share information, develop and compare programs, prepare requests for proposals, and assess pending and new legislation or regulations.

Additional Projects. PWP is currently reviewing other potential options with respect to additional renewable resources, including possible solar photovoltaic facilities in the Antelope Valley are of Los Angeles County. PWP expects to procure additional renewable resources towards satisfying its RPS targets. It is expected that approximately 26% of PWP's energy portfolio will be supplied from renewable resources by December 31, 2013.

Fuel Supply

PWP's local generating units are primarily fueled by natural gas. The Southern California Gas Company provides intra-state delivery of PWP's natural gas supplies. Peak natural gas consumption is approximately 52,000 MMBtu per day. Gas commodity is subject to reserve leaseholds and prepayment agreements as described herein, purchased on a term basis in forward markets, and also at monthly and daily index rates. During peak months, gas requirements in excess of firm capabilities and long-term supply contracts are purchased at the Southern California Gas Company Citygate.

PWP has access to Canadian gas via firm transportation on the Nova, Transcanada, and Pacific Gas & Electric ("PG&E") expansion into the Southern California Gas Company system, netting about 3,989 MMBtu/day at Kern River Station in Kern County, California.

In addition, the City is a participant in SCPPA's Natural Gas Project, consisting of leasehold interests in natural gas fields located in Wyoming and Texas, and its Prepaid Natural Gas Project Gas Sales Agreements which provide a supply at prices below spot market price through 2035. These supplies are expected to account for an average of approximately 1,940 MMBtu/day or approximately 33% of PWP's average daily natural gas consumption. The City is currently selling the gas produced by its interests in the SCPPA Natural Gas Project rather than utilizing it in energy production at the Magnolia Power Plant or its local generation. Such sale is rescindable at any time. See "– Joint Powers Agency Generation and Fuel Resources/Remote Ownership Interests – Southern California Public Power Authority – *Prepaid Natural Gas Project*" and "– Remote Ownership Interests – *Natural Gas Project*."

In 2011, the City entered into three bio-methane contracts with EDF Trading North America, LLC, WMRE of Ohio-American, LLC and Sequent Energy Management, L.P. The bio-methane will be burned at the Magnolia Power Plant as well as at the City's local generation in order to generate renewable energy. The volume of bio-methane expected to be delivered from these contracts is 739,125 MMBtu annually which equates to approximately 74,000 MWh annually or 6% of the City's energy portfolio for purposes of satisfying its RPS. Pending legislation regarding certain limitations as to the eligibility of bio-methane as a renewable resource may impact future requirements for PWP to obtain additional resources. See "DEVELOPMENTS IN THE CALIFORNIA ENERGY MARKETS – State Legislation – *Renewable Portfolio Standards*."

Transmission Resources

General

In January 2005, the City became a Participating Transmission Owner ("PTO") in the CAISO and placed certain transmission facilities and entitlements to transmission service on certain facilities under the CAISO's operational control. Pursuant to the CAISO Tariff and applicable Federal Energy Regulatory Commission ("FERC") precedent, FERC approved a Base Transmission Revenue requirement ("TRR") and a Transmission Revenue Balancing Account Adjustment ("TRBAA") for the City to recover the costs of these facilities and entitlements.

The City has been filing annual updates to its TRBAA with FERC since becoming a PTO. The TRBAA is the mechanism by which transmission revenue credits associated with transmission service from the CAISO are flowed through to transmission customers. The TRBAA amount is used as an offset to the Transmission Revenue Requirement of a Participating Transmission Owner. The TRBAA does not change the Base TRR nor does it flow through transmission cost increases to PTOs. Any change to the Base TRR requires that a petition must be filed with FERC.

In August 2011, the City filed a petition with FERC to revise its Base TRR to recover the cost increases the City has been experiencing since FERC approved its initial Base TRR. In December 2011, FERC approved the City's petition and increased the City's TRR by approximately $2.0 million effective October 1, 2011.

Existing Transmission Resources

Transmission resources are an integral component of the City's plan to provide economical and reliable electric service to its customers. The City currently has several firm capacity transmission agreements to deliver over 200 MW of remote generation to the T.M. Goodrich Receiving Station in the City, and to provide access to major hubs of the western wholesale power market. The transmission network allows the City to obtain low-cost energy supplies when available, enable bulk sales and exchanges of energy during low-load periods, and take advantage of price differentials between various locations on the Western Electricity Coordinating Council ("WECC") power grid through wheeling, arbitrage sales and energy swaps. Depending on the generation source, the energy is transmitted through a combination of the transmission resources listed in the following table.

TABLE 6
FIRM TRANSMISSION SERVICE AGREEMENTS

Transmission Line Path	Owner/Party	Capacity[2]
Sylmar-T.M. Goodrich	SCE/CAISO[1]	336 MW
Pacific-Northwest DC Intertie	Pasadena	72 MW
Northern Trans. System (NTS)	IPA/Utah	98 MW
Southern Trans. System (STS)	SCPPA	141/110 MW
Adelanto-Sylmar	LADWP	136 MW
Mead-Phoenix	SCPPA	33 MW
Mead-Adelanto	SCPPA	75 MW
McCullough-Victorville	Pasadena	25 MW
Victorville-Sylmar	LADWP	26 MW
Hoover-Sylmar	LADWP	26 MW

Source: Power Supply Business Unit of PWP.
(1) The CAISO became the control area operator and scheduling agent for this line commencing with CAISO operations.
(2) Transmission lines with different import/export ratings.

Southern California Edison. The City has a transmission contract with SCE for rights to 200 MW of firm transfer capacity from LADWP's Sylmar Substation to the T. M. Goodrich Receiving Station in the City through SCE, as well as an interconnection agreement with SCE for interconnection of the T.M. Goodrich Receiving Station to the SCE system. Beginning on March 31, 1998, the CAISO became the scheduling agent for the transmission contract. The City joined the CAISO in 2005 as a Participating Transmission Owner in order to facilitate the transmission of resources without further contracting with the SCE power distribution system and as a PTO, the City continues to have full access to this transmission at the CAISO tariff rate. A successor to the City's interconnection agreement with SCE for interconnection of the T.M. Goodrich Receiving Station to the SCE system was put into place on August 3, 2010, resulting in increased capacity rights to 336 MW from 200 MW.

Pacific Northwest DC Intertie. Spanning 850 miles from Celilo in northern Oregon to Sylmar, California, the Pacific Northwest DC Intertie is a double-pole, ±500 kV transmission line. The Pacific Northwest DC Intertie conveys energy to the City from BPA and other Pacific Northwest utilities. PWP is entitled to 69 MW (2.25%) of the total 3,100 MW capacity of the southern portion (south of the point where the line crosses the Nevada-Oregon Border ("NOB") of the Pacific Northwest DC Intertie). Because of the load diversity and excess hydroelectric energy in the spring, the Pacific Northwest DC Intertie provides the City many opportunities for energy imports.

Northern Transmission System. The Northern Transmission System consists of two 50-mile long 345 kV AC transmission lines which connect the IPP to the Mona Substation in Utah and the Gonder Substation in Nevada. The City has entitlements of up to 104 MW of capacity on these transmission lines as a result of the IPP Excess Sales Contract with the Utah Participants. IPA allocates 2.4735% of its outstanding debt to the Northern Transmission System. As of July 15, 2013 this allocation was approximately $43.9 million. The City's maximum share of this obligation is 7.6%.

Southern Transmission System. The Southern Transmission System ("STS") is a double-pole, ±500 kV DC transmission line spanning 488 miles from IPP in central Utah to the Adelanto Substation in Southern California, together with an AC/DC converter station at each end. It is operated and maintained by the LADWP under contract with IPA. In connection with its entitlement to the IPP, the City acquired a contractual entitlement to 141 MW (5.9%) of the total 2,400 MW capacity of the STS through a

transmission system contract with SCPPA. (As the result of an upgrade to the STS which was completed in December 2010, the capacity of the STS was increased from the previous 1,920 MW to 2,400 MW). The term of the City's contractual entitlement extends for the life of facility, or until all SCPPA bonds issued to finance the STS are defeased. As of July 15, 2013, SCPPA had outstanding $708,515,000 principal amount of its bonds issued to finance the STS (including the STS upgrade project). The City has entered into a transmission service contract with SCPPA which obligates the City to pay the cost of its share of the transfer capability on a "take-or pay" basis.

Adelanto-Sylmar Transmission Line. The Adelanto-Sylmar Transmission Line is a continuation of the Southern Transmission System. The City has a contract with LADWP for 141 MW of transmission capacity from either Adelanto or Victorville to Sylmar.

Mead-Phoenix Transmission Project. The Mead-Phoenix Transmission Project consists of a 256-mile, 500 kV AC transmission line, which was placed into commercial operation on April 15, 1996, extending between a southern terminus at the existing Westwing Substation (in the vicinity of Phoenix, Arizona) and a northern terminus at Marketplace Substation, a substation located approximately 17 miles southwest of Boulder City, Nevada. The line is looped through the new 500-kV switchyard constructed in the existing Mead Substation in southern Nevada with a transfer capability of 1,923 MW (as a result of certain upgrades completed in 2009). By connecting to Marketplace Substation, the Mead-Phoenix Transmission Project interconnects with the Mead-Adelanto Transmission Project (as described below) and with the existing McCullough Substation. The Mead-Phoenix Transmission Project is comprised of three project components. SCPPA has executed an ownership agreement providing it with an 18.3077% member-related ownership share in the Westwing-Mead project component, a 17.7563% member-related ownership share in the Mead Substation project component, and a 22.4082% member-related ownership share in the Mead-Marketplace project component. Other owners of the line are Arizona Public Service Company, M-S-R Public Power Agency, Salt River Project and Startrans IO, L.L.C. The commercial operation date for the project was April 15, 1996. The City has entered into a transmission service contract with SCPPA which obligates the City to pay the cost of its share of the transfer capability (13.8%) on a "take-or-pay" basis. The term of this contract extends for the life of the facility, or until all SCPPA bonds issued to finance the project are defeased. As of July 15, 2013, SCPPA had outstanding $38,390,000 principal amount of its bonds issued to finance its interest in the Mead-Phoenix Transmission Project. Through its contract with SCPPA, the City is entitled to receive 33 MW of this line's 1,923 MW transfer capability.

Mead-Adelanto Transmission Project. This arterial line consists of a 202- mile, 500 kV AC transmission line extending between a southwest terminus at the existing Adelanto Substation in southern California and a northeast terminus at Marketplace Substation, a substation located approximately 17 miles southwest of Boulder City, Nevada. By connecting to Marketplace Substation, the line interconnects with the Mead-Phoenix Transmission Project and the existing McCullough Substation in southern Nevada. The line has a transfer capability of 1,291 MW. SCPPA has executed an ownership agreement providing it with a total of a 67.9167% member-related ownership share in the project. The other owners of the line are M-S-R Public Power Agency and Startrans IO, L.L.C. The commercial operation date for the project was April 15, 1996, which coincided with the completion of the Mead-Phoenix Transmission Project. The City has entered into a transmission system contract with SCPPA which obligates the City to pay the cost of its share of the transfer capability (8.6%) on a "take-or-pay" basis. The term of this contract extends for the life of the facility, or until all SCPPA bonds issued to finance the project are defeased. As of July 15, 2013, SCPPA had outstanding $126,170,000 principal amount of its bonds issued to finance its interest in the Mead-Adelanto Transmission Project. Through its contract with SCPPA, the City is entitled to 70 MW of this line's transfer capability.