



LOS ANGELES DEPARTMENT OF WATER AND
POWER

POWER SYSTEM RATE ACTION REPORT

Chapter 2: Introduction and Background

July 2015



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INTRODUCTION AND BACKGROUND

2.1 PURPOSE AND OBJECTIVES FOR THE PROPOSED NEW RATES AND RATE DESIGN

The Los Angeles Department of Water and Power (LADWP or the Department) is the nation's largest municipal water and power utility and supplies power to nearly four million citizens of Los Angeles through the operation of over 7,640 megawatts (MW) of generation and close to 14,000 miles of power transmission and distribution lines.

The Board of Water and Power Commissioners (Board) is currently obligated under Charter Section 609(c)¹ and the Master Resolution to establish rates for power service (Power Rates) and collect charges in an amount which, together with other available funds, will be sufficient to:

- Service the Department's Power System indebtedness; and
- Pay the necessary expenses of operating and maintaining the Power System.

The obligation of the Department under the Charter and the Master Resolution is known as the rate covenant. Providing reliable infrastructure and meeting regulatory mandates are necessary expenses of operating and maintaining the Power System.

Power Rates are also subject to the approval of the City Council by ordinance (a rate ordinance). The Charter provides that such rates will, except as otherwise authorized by the Charter, be of uniform operation for customers of similar circumstances throughout the City taking into consideration, among other things, the nature of the uses, the quantity supplied and the value of the service.

LADWP has taken important steps to reduce the need for rate actions since the last base rate increase in 2012. However, given the nature of LADWP's obligations and commitments, the Department is at a point where rate increases are necessary to continue and improve system reliability, meet regulatory obligations and maintain a healthy financial standing.

The proposed rate action puts forward an updated rate design, including new rates that will enable the Department to comply with the rate covenant and other legal obligations. The objectives of the proposed rate action include:

- Maintaining affordable power rates;
- Continuing to encourage business development in Los Angeles;

¹ For full text see: http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:laac_ca

- Encouraging the growth of energy efficiency;
- Transforming infrastructure through increasing upgrades to provide reliable service; and
- Promoting the proliferation of local renewable energy supply.

The proposed new rates allow LADWP to meet all of these objectives while continuing to maintain competitive rates relative to peer utilities and benefiting the overall City of Los Angeles. This section outlines the following considerations of the updated rate design:

- Alignment with the Mayor's policy and goals;
- Establishing a pricing policy to transform electric power supply;
- Providing cost recovery for major Department programs;
- Legal considerations; and
- Cost of service alignment confirmation

2.1.1 Alignment with the Mayor's Policy and Goals

The Department operates with goals and visions that align with the Mayor's larger policy goals for the City of Los Angeles. Especially pertinent to the Power System are the Mayor's Budget Policy and Goals.²

On September 22, 2014, the Mayor of the City of Los Angeles issued his Fiscal Year (FY) 2015-16 Budget Policy and Goals to the General Managers of all City Departments. The Mayor outlined five "Priority Outcomes" that focus on the results that he believes matter most to the residents of Los Angeles. These outcomes are:

1. Make Los Angeles the best run big city in America;
2. Promote good jobs for Angelenos all across Los Angeles;
3. Create a more sustainable and livable City;
4. Ensure our communities are the safest in the nation; and
5. Partner with citizens and civic groups to build a greater City.

The Department's investments and initiatives outlined in the proposed financial plan and rates were developed with the Mayor's objectives in mind and strongly align with each Priority Outcome. For example, LADWP's significant investments in energy efficiency and customer solar programs help to make Los Angeles more sustainable (Mayor Priority Outcome 3), and the significant planned investments in infrastructure improvements promote economic development, stimulate job growth in the region and improve customer service (Mayor Priority Outcomes 1

² See <http://sanpedrocity.org/wp-content/uploads/2014/09/FY15-16-Budget-Policy-Letter.pdf>

and 2). For more examples of how LADWP's rates are guided by Priority Outcomes, see Chapter 2 - Appendix A.

2.1.2 Establishing a Pricing Policy to Transform Electric Power Supply

The proposed power rates are designed to recover costs associated with the sustainable transformation of the power supply portfolio in a manner designed to minimize the impact on ratepayers while also preserving core Department financial integrity. The proposed rate structure includes base and variable pass-through rate components and a transparent decoupling mechanism that matches costs to rates and ensures recovery of the Department's fixed and variable costs to operate the Power System. A detailed explanation of the Department's proposed rate structure and rates is found in Chapter 5.

In order to transform Los Angeles' power supply and forge a clean energy future, LADWP must replace over 70% of its existing power supply as well as rebuild and modernize much of its aging power grid infrastructure. This effort, much of which is legally obligated, requires significant capital investments, operations and maintenance expenditures, and power purchases which are all factored into LADWP's financial plan and proposed rates.

The power supply transformation plan includes³:

- Rebuilding local power plants to preserve oceanic life and comply with regulatory mandates;
- Increasing renewable energy supply to 33% by 2020 as required by State law;
- Transitioning to make Los Angeles coal free by replacing the 39% of coal-fired power supply that LADWP currently receives each year from the Navajo Generating Station (NGS) in Arizona and Intermountain Power Plant (IPP) in Utah;
- Growing customer opportunities programs to reach a 15% energy efficiency target, while also enabling local solar programs and sponsoring emerging technology initiatives; and
- Addressing increases in the price of fuel and increases in the cost of purchased power.

2.1.3 Providing Cost Recovery for Major Department Programs

Sustainability, reliability, and regulatory compliance are top priorities for the Power System. In order to maintain high quality service and electricity, the Power System must complete large, capital-intensive projects. LADWP complies with Federal and State mandates through projects that involve meeting a Renewable Portfolio Standard (RPS), replacement of aging infrastructure, and Once-Through Cooling (OTC) elimination. LADWP's capital improvement plan sets a rigorous schedule for maintenance and replacement of transmission and distribution

³ See Chapter 3 Section 3.3 for detailed information about the power supply transformation.

lines to reduce system disruptions. LADWP remains committed to improving sustainability through energy efficiency and local solar projects.

The Department’s last new electric base rates were approved in FY 2012-13; however, revenue requirements for major programs continue to increase. The proposed rates are designed to meet the obligations associated with operating the Power System. The Power System’s major programs include:

- Power System Reliability Program (PSRP): Comprehensive, long-term Power System reliability initiative;
- 33% Renewable Portfolio Standard (RPS): Compliance with State guidelines to have 33% of electricity powered by renewable resources;
- Repowering of Local Power Plants: Replacement of older generating units to eliminate ocean water intake in an effort to comply with OTC regulatory mandates;
- Transitioning off Coal: Divestiture of NGS and elimination of coal-fired generation at IPP; and
- Customer Opportunities Programs: Several programs including the Local Solar Program, incentives for local solar installation and PPA opportunities, and Energy Efficiency, a 15% energy reduction target enabled by energy efficiency programs.

The capital investment in these major programs is expected to increase at a compound annual growth rate (CAGR) of 7.7% from FY 2013-14 to FY 2019-20 as shown in Figure 1. More detail on why these programs are important can be found in Chapter 3, Power Rate Drivers.

Figure 1: Increase in Capital Costs for Major Power System Programs Between Last Base Rate Increase and Last Year of Proposed Rate Action (\$M)⁴

Category	FY 13-14	FY 19-20	Net Change	% Change	CAGR ⁵
Power System Reliability Program	\$256.45	\$542.20	\$285.75	111.43%	16.15%
33% RPS (Less Local Solar)	\$72.22	\$331.90	\$259.68	359.57%	35.67%
Repowering of Local Power Plants (Including OTC elimination)	\$375.93	\$183.70	(\$192.23)	-51.13%	-13.34%
Transitioning off Coal⁶	\$0	\$0	N/A	N/A	N/A
Customer Opportunities Program (Including	\$116.64	\$196.60	\$79.96	68.55%	11.01%

⁴ All budgeted costs and revenue requirement calculations are based on Financial Plan Case Number 19.

⁵ The Compound Annual Growth Rate (CAGR) represents an annualized growth rate over the period in question (in this case, five years).

⁶ The capital spend for this category is shown a “0” as most of these expenses are incurred by the Department in the form of power purchases at the Apex and other generating facilities.

Category	FY 13-14	FY 19-20	Net Change	% Change	CAGR ⁵
Local Solar)					
Total	\$848.94	\$1,230.00	\$381.06	44.89%	7.70%

All together, the total yearly expense of the Department is known as the “revenue requirement.” In general, the revenue requirement is the annual revenue required to fund the Department’s obligations and operations, maintenance, cash funded capital, administration, debt service cost and other expenses to provide safe and reliable service to LADWP’s customers. These major spending categories are required to meet the obligations defined under the rate covenant.

The Department’s annual revenue requirement is determined by the “cash-needs approach” and is comprised of the following:

- **Operating & Maintenance (O&M) Expenses:** The normal and recurring expenses incurred to run the Power System including, but not limited to, fuel, power, supplies, employee costs, and administrative costs, etc.
- **Cash Funded Capital Expenditures:** The amount of cash the Department will spend from its operating revenue in a given year on capital after deducting all other funding sources.
- **Debt Service Cost:** The principal as well as the interest on all outstanding debt for required payments to the Department’s creditors.
- **Planned Transfer to the City:** The planned revenue requirement also includes the cash needed to ensure LADWP satisfies criteria to fund a transfer payment to the City of Los Angeles equal to 8% of prior fiscal year Power System revenue.

The proposed rates are designed to meet the obligations associated with operating the Power System for the five-year period FY 2015-16 through FY 2019-20. This proposed revenue requirement funds critical Department activities, allows the Department to meet legal mandates, and maintains the current fiscal health of the organization.

2.1.4 Legal Considerations

The proposed rates consider many legal obligations set at the Federal, State, and local levels, which provide guidance for rate design and also mandate significant Department capital and O&M expenditures.

2.1.4.1 Legal Requirements Which Guide Rate Design

LADWP must consider applicable legal guidance in developing proposed rates for power service. Potentially applicable guidance includes:

- **City Charter Section 676, Rate Setting,** which states: “rates shall be of uniform operation for customers of similar circumstances..., as near as may be, and shall be fair and

reasonable, taking into consideration, among other things: (1) the nature of the uses; (2) the quantity supplied; and (3) the value of the service”; and

- Proposition 26, which declares that “a charge imposed for a specific government service or product provided directly to the payor shall not exceed the reasonable costs of providing the service or product to the payor.”

2.1.4.2 Legal Requirements Which Mandate Department Expenditures

The Department is also required to comply with many complex regulatory and legislative mandates associated with specific Power System programs. Many of these mandates are outside LADWP’s control and are direct drivers of the proposed rate action. The legal requirements with significant impact on the Department’s Power System costs include:

- Senate Bill (SB) X1-2 – California Renewable Energy Resources Act: State law has established Renewable Portfolio Standard (RPS) mandates for power utilities in the State, including the Department, requiring costly investments in new sources of generation or purchased power. These mandates require that the retail sales of power produced by eligible renewable energy resources must reach the following target percentages: 20% average for 2011 through 2013, 25% by 12/31/16, and 33% by 12/31/20;
- Federal Clean Water Act – Once-Through Cooling (OTC): A mandate that effectively obligates the Department to eliminate OTC from all in-basin thermal generators;
- California Assembly Bill (AB) 32 – Global Warming Solutions Act: A State law that requires utilities to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020, representing a 25% reduction in GHG emissions Statewide;
- California SB 32 – Amendment to the Public Utilities Code, Feed-In Tariff (FiT): A State mandate requiring the Department to develop a 75MW solar (FiT);
- California SB 1368 – Power Plant Emissions Performance Standards: A law that prohibits California utilities from entering into long-term financial commitments for base load generation unless the utility complies with the emissions performance standard;
- Environmental Protection Agency (EPA) – Coal Combustion Residuals (CCR) Regulations: An executive order mandating that by 2010, utilities reduce emissions to 2000 levels; by 2020, utilities reduce emissions to 1990 levels; and, by 2050, utilities reduce emissions to 80% below 1990 levels; and
- California AB 2021 – Energy Efficiency (EE): State legislation that requires utilities, such as the Department, to identify and develop all potentially achievable, cost-effective EE savings and establish annual energy reduction targets. It requires the State’s electric utilities to achieve cumulative savings of 10% of total energy consumption levels by 2020.

Detailed information on these laws and other mandates can be found in Chapter 2 - Appendix B.

2.1.5 Cost of Service Alignment Confirmation

In October 2012, the Los Angeles City Council approved LADWP's Incremental Electric Rate Ordinance No. 182273 to provide incremental rate increases for FY 2012-13 and 2013-14. In its action to approve LADWP's power rates, the Council made recommendations, including requesting that LADWP "conduct a new formal cost of service study in order to prepare for future power rate restructuring." In response to this recommendation, LADWP has completed a cost of service study for its Power System to evaluate the power cost of service and ensure that rates are cost based.

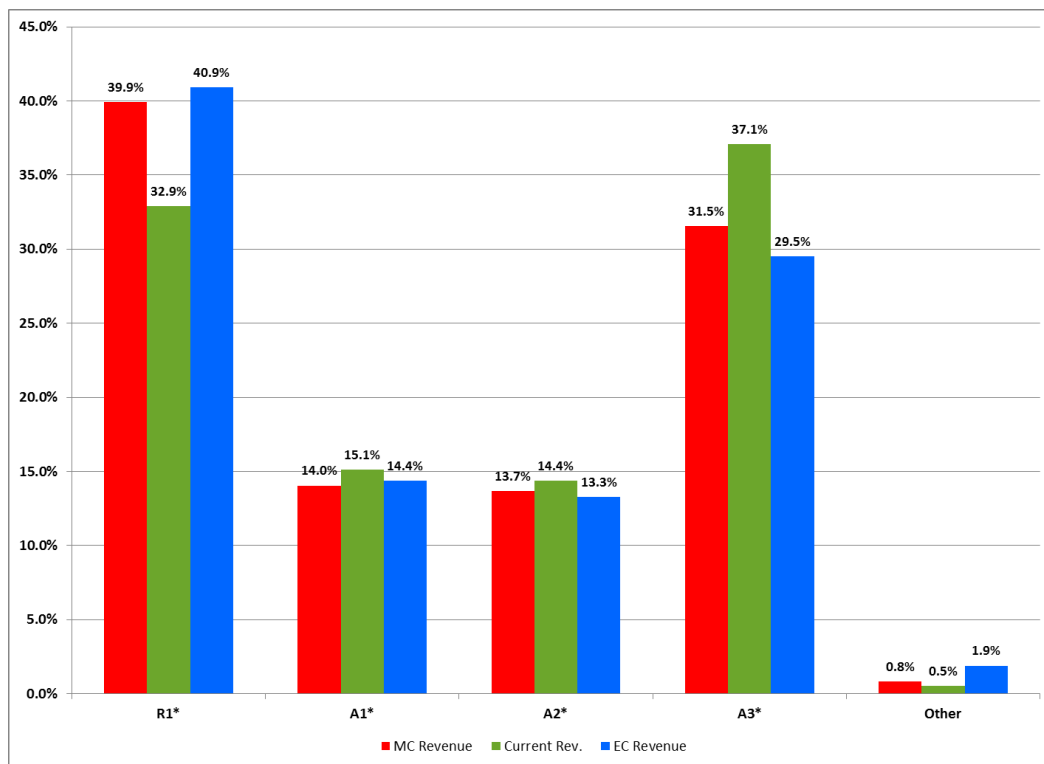
Cost of service analysis constitutes standard utility industry practice for setting power rates. LADWP has utilized the marginal cost study approach to evaluate the cost of providing service to various customer classes and provide guidance for rate design. Marginal cost principles are an accepted methodology for guiding both the allocation of costs to customer classes and the development of power rates. All the major California Investor-Owned Utilities (IOUs) and many Publicly-Owned Utilities (POUs) utilize marginal cost principles for rate design, particularly in the tier design for the residential customer class and time of use (TOU) rates for commercial customer classes.

Figure 2 below illustrates the results of the marginal cost of service study compared to the current revenue percentages for each customer class. The marginal cost revenue requirement percentage for the residential (R1) customer class is 39.9%, while the corresponding percentage of current revenues for FY 2012-13 is 32.9%. Conversely, based on marginal costs, the large commercial and industrial (A3) customer class would be allocated a lower revenue requirement of 31.5% as compared to providing 37.1% of the current total revenues. These results were supported by an embedded⁷ cost of service analysis, which produced similar customer class percentages as the marginal cost of service study. The results of the embedded cost of service analysis are also shown in Figure 2.

The marginal cost study results will guide the alignment of the revenue requirements among the customer classes. Marginal cost of service study principles and methodologies are discussed in more detail in Chapter 4 of this report.

⁷ Embedded Costs are also referred to as Average Embedded Costs.

Figure 2: Cost of Service Study Results



2.2 BENEFITING CUSTOMERS AND THE OVERALL CITY

A rate increase will benefit present and future citizens of Los Angeles. The proposed rate action will allow LADWP to provide Los Angeles with extensive energy efficiency programs, sustainable clean energy, reliable infrastructure, and improved customer service, thus improving the standard of living for citizens of Los Angeles. Electric power is a fundamental service on which most modern economic activity now relies; LADWP’s proposed investments to transform the City power supply will also ensure that the City and citizens of Los Angeles continue to have access to cleaner, reasonably priced sources of sustainable energy in the future.

Inductive economic impact analysis done by the Los Angeles Economic Development Corporation (LAEDC) suggests that Department expenditures for major projects in Los Angeles creates jobs and stimulates additional economic output⁸. The LAEDC estimated that, in FY 2011-12, Power System expenditures, totaling \$2.18 billion, supported 27,600 jobs and induced \$6.99 billion of additional economic activity and output. If the local characteristics of the current Los Angeles economy have remained similar to the assumptions made by the LAEDC, the average annual Power System spending, of \$2.65 billion per year over the five-year rate action,

⁸ See Los Angeles County Economic Development Corporation, An Economic Impact Analysis.

will support an average annual 33,321 jobs and induce an average annual \$8.39 billion in additional economic activity and output as shown in Figure 3.

Figure 3: Estimate of Economic Impact of Power System Expenditures⁹

Fiscal Year	Proposed Rate Period						Average Annual
	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	
O&M Expenditures (\$M)	\$957	\$1,010	\$1,019	\$1,043	\$1,074	\$1,120	\$1,053
Capital Investments (\$M)	\$1,431	\$1,598	\$1,594	\$1,538	\$1,593	\$1,659	\$1,596
Total Department Spending (\$M)	\$2,338	\$2,608	\$2,613	\$2,581	\$2,668	\$2,778	\$2,650
Direct Jobs	6,865	7,411	7,441	7,442	7,682	8,004	7,596
Indirect and Induced Jobs	23,186	25,305	25,353	25,071	25,909	26,985	25,725
Total Jobs	30,051	32,716	32,794	32,513	33,591	34,989	33,321
Economic Output (\$M)	\$7,568	\$8,215	\$8,239	\$8,194	\$8,463	\$8,816	\$8,385

2.3 MAJOR ACCOMPLISHMENTS SINCE THE LAST RATE ACTION

Since the last base rate action in FY 2012-13, the Power System has achieved significant accomplishments in many areas of operations that have resulted in cost savings efficiencies and infrastructure investment including, but not limited to:

- Working with the Ratepayer Advocate;
- A new labor agreement;
- Significant cost reduction plan savings;
- Major Power System investments:
 - Renewable Energy Supply;
 - Transitioning off Coal;
 - Repowering Local Power Plants;
 - Energy Efficiency;
 - Local Solar Programs;

⁹ Extrapolated per the ratios estimated by LAEDC for the 2012 Power System Work.

- Power System Reliability Program (PSRP);
- Reduction of greenhouse gas emissions;
- Electric Vehicle programs; and
- Additional business planning to avoid unnecessary rate increases.

This section discusses some of these accomplishments; however, given the nature of these accomplishments, many of the benefits are yet to be realized.

2.3.1 Ratepayer Advocate Input

The Department has been working closely with the Ratepayer Advocate (RPA), holding bi-weekly meetings since July 2013. In these meetings, many major aspects of LADWP's financial plans and actions that require Board approval have been reviewed. Specific topics discussed pertaining to the Power System include, but are not limited to:

- Major initiatives and capital projects;
- Monthly cash/variance reports;
- Financial plans that may potentially be used in the rate action;
- Quarterly Board packages for major program expenditures;
- Marginal cost study results;
- Power rate design options; and
- Various sensitivity cases to stress test the revenue requirement (LADWP has worked with the RPA to develop long-term fiscal outlooks and stress test the proposed plan against dozens of different scenarios).

2.3.2 Labor Agreement and Reduction in Labor Costs

2.3.2.1 Labor Agreement

In September 2013, IBEW union workers approved revisions to the labor contract, or Memorandum of Understanding (MOU), between their union and the Department. Under the proposal, the four-year package freezes salaries for three years and then limits a cost-of-living increase to 2.0% in the final year. It also includes provisions to permit LADWP and IBEW, by mutual agreement through the Joint Labor/Management Resolution Board, to reexamine various existing work rules and pay bonus structures, and it resolves a lawsuit filed by the LADWP pension board over payments to workers who transferred into the utility.

From October 2013 to September 2017, LADWP will save approximately \$456 million from the new contract as summarized in Figure 4.

Figure 4: Key Components of the Labor MOU

Key MOU Components	Four-Year Savings Estimate (\$M)
Defer Cost of Living Adjustment (COLA) from 10/1/13 to 10/1/16	\$385.0
Entry Level Salary Reduction for 34 Common Classes	\$15.0
Sick Time Medical Certification Requirement	\$12.0
Contracting Out Overtime Restriction - Reduction from 10% to 5%	\$3.0
Retirement Plan Tier 2 For All New Hires	\$41.0
Total Estimated Savings Over Four Years	\$456.0

It is estimated the contract will result in a \$5 billion savings over 30 years. The contract takes a 2% salary increase to cover employee health care costs. It makes a number of changes to the pension system, including moving the retirement age from 55 to 63 and capping payouts at 80% of the last three years average salary, resulting in an estimated savings of \$1.8 billion. The biggest savings, estimated at \$4.22 billion, will come from salary savings. Other savings will come from reduced payments to contract out and a change in sick leave.

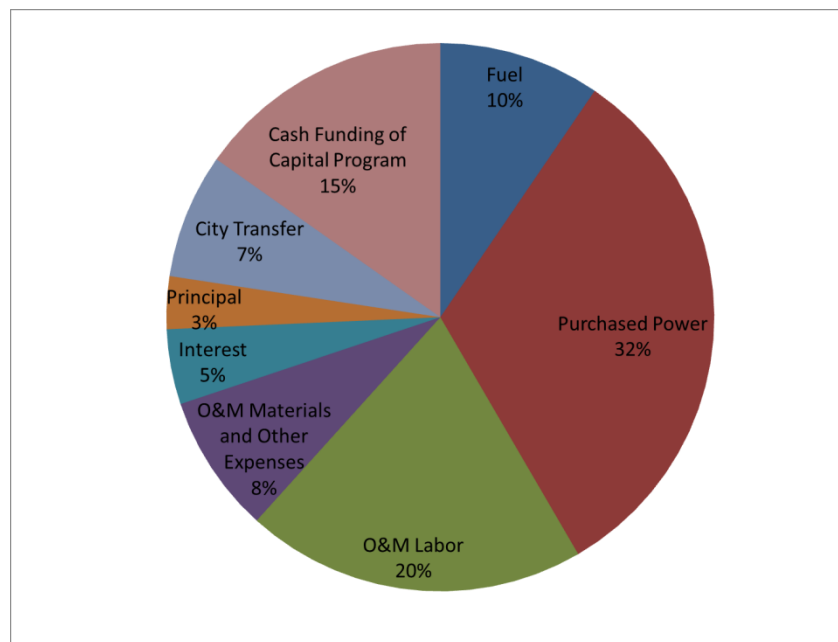
There will also be savings of \$180 million to \$210 million (from the settlement of reciprocity lawsuit) in the calculations of retirement benefits for employees who transfer into the LADWP system.

LADWP identified a unique opportunity to place new hires in a new Tier 2 pension that provides for a reduced pension calculation. Given its current workplace demographic, over the next four years this is estimated to save the Department \$41 million. Approximately 58% of the workforce will be eligible to retire in ten years. Therefore, savings will be significant as more and more new hires take the place of retiring employees.

2.3.2.2 Labor Costs

Recent wage and benefit increases have been somewhat mitigated by the new labor MOU. The Department has separately estimated the impact of inflation and benefit costs (benefits include both pension costs and healthcare costs) on basic operations. Collectively, wages and benefits represent \$744 million, or 20%, of the Power System’s \$3.70 billion revenue requirement for FY 2015-16. Figure 5 shows the current portion of the Power System’s revenue requirement represented by wages and benefits in operating and maintenance expenses, inflation (in the form of cost of living adjustments (COLAs)) and pension costs.

Figure 5: Power System FY 2015-16 Revenue Requirement Components¹⁰



COLA and Inflation

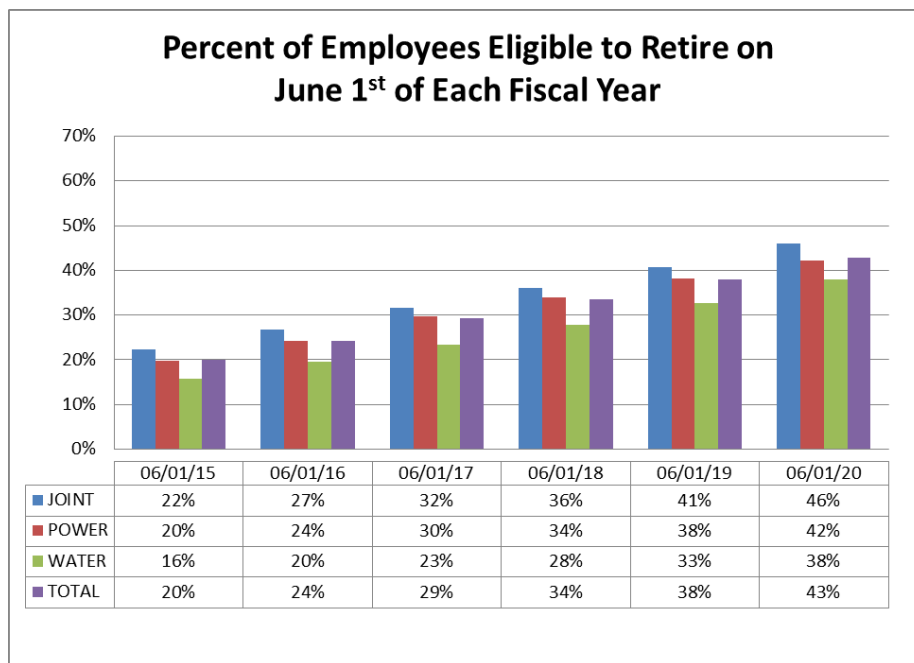
The Department forecasts inflation separately for labor and non-labor expenses. Recent wage and benefit increases have been somewhat mitigated by the new labor MOU with the COLA frozen for the first three years and 2% in the fourth year. However, after this period, the Department's financial plan assumes COLAs will return to the 2.9% level. It also assumes an inflationary impact of about 2.5% per year for non-labor expenses. While the wage cost of living increase for most of the Department's employees is limited until 2017, other employee related expenses, namely health care and pension costs, are expected to continue increasing at or above the level of inflation.

Retirement

Pending retirements present a significant challenge to the Department. As shown in Figure 6, 42% of LADWP's Power System workforce is eligible to retire within the next five years.

¹⁰ The City Transfer is 8% of LADWP's operating revenue but it represents 7% of the overall revenue requirement as indicated by this chart.

Figure 6: LADWP Retirement Eligible Personnel 2015-2020¹¹



To prepare for the expected retirements and associated loss of institutional knowledge, the Department is increasing recruiting efforts with the goal of having people in place and trained in advance of expected retirements in critical functional areas. The combination of a lengthy recruiting process and a long training period make it imperative that replacement personnel are identified well in advance of retirements. For the Power System, the majority of the new personnel will be assigned to and funded by the specific infrastructure replacement projects discussed in this report. In addition, new hires will enter the Department at a new Tier 2 pension level, which will provide LADWP with additional savings.

Pensions

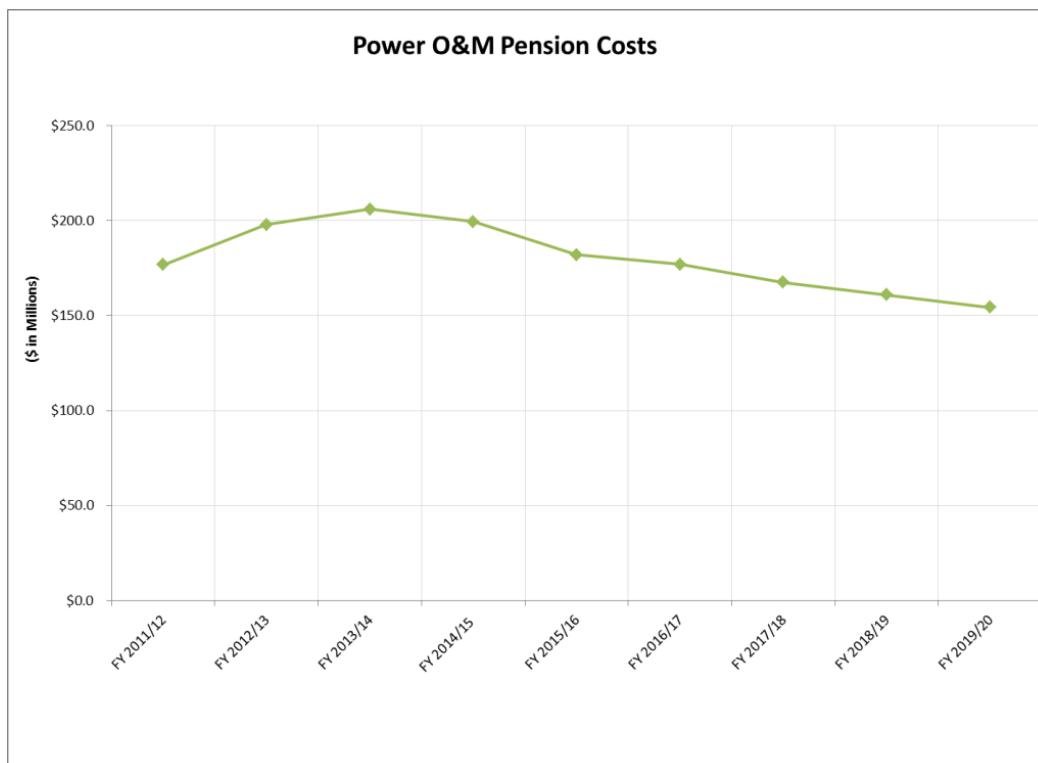
Pension costs contribute to the Department’s O&M expenses. Figure 7 below shows the pension expense included in Power System O&M expenses for FY 2014-15 through FY 2019-20.

As discussed previously, the Department is expecting significant savings by placing new hires in a Tier 2 pension category with lower long-term Department costs and by capping pension payouts at 80% of the average of the last three years’ salary. The new pension structure is estimated to save the Department \$1.8 billion. Beginning in FY 2011-12, LADWP has treated the unfunded pension liability as a regulatory asset, allowing the cost to be amortized over time

¹¹ Criteria for retirement eligibility are defined as “age 55 with over 30 years of service” or “age 60 with five or more years or service.” LADWP data estimated as of June 1st of each year.

rather than being collected in one year. Regulatory asset accounting will benefit LADWP by deferring the impact of pensions on customer rates without impacting the debt to equity ratio.

Figure 7: Power System O&M Pension Costs



Overtime

The original cost reduction plan also targeted significant reductions in overtime. Figure 8 outlines the overtime targets set in 2011, recent results, and future projections.

Figure 8: LADWP Overtime Performance and Targets (Excluding Daily Exempts) Budgeted Overtime as a Percentage of Total Labor Costs

	Average FY 08-09 through FY 10-11	Cost Reduction Plan Target	FY 11-12 through FY 13-14	Average FY 14-15 through FY 19-20
Water System	12.4%	10.0%	12.7%	9.8%
Power System	25.3%	22.0%	20.6%	17.5%
System Support/Shared Services	12.4%	10.0%	12.4%	9.1%

Outside Contracts

As noted in discussion of LADWP’s initiatives to respond to the Council’s recommendations, LADWP will evaluate each major project to determine the correct mix of outsourcing and internal personnel to complete the project in the most cost-effective way. The Power System has identified additional infrastructure improvement projects that could be implemented if incremental resources and funding are available through either new personnel, overtime, outside contracts or some combination of these sources. On an ongoing basis, the outside contracts will allow LADWP to continue addressing power supply and regulatory requirements while addressing infrastructure improvements at the same time.

Changes to the new MOU give the Department greater flexibility to contract out for labor and services. As shown in Figure 9, the Department anticipates outsourcing an average of 53.5% of the Power system work over the five-year rate period¹².

Figure 9: Power System Capital Work to be Contracted Out (%)

	Proposed Rate Period (Fiscal Year)					Five-Year Average
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	
Power System Capital Work Delivered by Outside Contracts (%)	50.8%	49.2%	52.9%	55.9%	58.1%	53.5%

2.3.3 Cost Reduction Plan Highlights

From February 2011 to June 2014, the Department implemented a multiyear, multimillion dollar, enterprise-wide cost reduction plan that focused on initiatives that would have an immediate and measurable impact on the Department’s expenses. This plan included change in areas such as labor, operations and capital expenditures to help keep rates reasonable.

In 2011, the Department examined its portfolio of recurring and non-recurring projects and related labor and non-labor expenses to identify areas to reduce costs in the short-term. The major components identified for the Department’s original cost reduction plan were as follows:

- Overtime reductions, vacancy and attrition-based labor cost savings;
- Non-Labor operations savings; and
- Capital cost savings.

¹² Excludes portion of System Support Division (SSD)/shared services work allocated to the Power System.

The cost reduction plan was developed to balance the need to maintain reasonable customer rates and financial stability with LADWP's major Water and Power System initiatives. LADWP exceeded its original \$459 million target by \$7.8 million. LADWP has saved an estimated \$467 million across the entire Department over the three-year period.

Figure 10: Cost Reduction Plan Current Results (Water and Power Systems)

Source	February 2011-June 2014 Savings (\$M)
Labor	\$230.0
Non-Labor	\$142.8
Capital	\$94.1
Total	\$466.9

Though the cost reduction plan was designed as a three-year program, various initiatives have sustainable effects that LADWP expects to realize in the future.

Additional Cost Savings Initiatives

In addition to exceeding the original cost reduction plan target, LADWP has implemented many other initiatives to control or reduce costs further. Highlights of these efforts include the following:

- **Overtime:** As part of the original cost reduction plan, LADWP established a 22% overtime target for the Power System. The approved budget for FY 2014-15 was 11.3%, and the projected level is expected to be 17.5% on average during the proposed rate period.¹³
- **Castaic Power Plant Improvements:** The Power System has modernized the Castaic plant to improve overall operating efficiency. The new turbines and other modifications have improved the generating unit output and pumping efficiencies, increasing capacity by approximately 80MW to 90MW for the entire plant. The current effort is focused on automated dispatch for Units 1 through 6 for improved Power System operations.
- **Solar Facilities on LADWP Property:** The renewable energy program maximized the use of LADWP property and existing electrical infrastructure by building two new 10MW solar power plants at the Pine Tree Wind Farm and Adelanto Converter Station, which are both in service. Solar panels are also being installed on several LADWP-owned buildings and other facilities.
- **Power System Reliability Program:** The Power System is implementing a new asset management plan to incorporate best practices on new and existing equipment. Through

¹³ Similar trends are projected for the Water System and SSD/shared services.

this program, LADWP expects to optimize expenditures for maintenance, reduce life cycle costs, and use best practices for overall equipment maintenance.

- **Capital Prioritization:** The FY 2014-15 update of the prioritization process for proposed capital projects to ensure best use of capital dollars has been completed. The ranking process was based on a variety of strategic objectives, including reliability, environmental stewardship, and maintaining competitive rates. The current effort to prioritize capital projects for FY 2015-16 is underway with expected completion by the end of March 2015.
- **Capital Project Controls:** An upgraded Work Management Information System is being deployed to streamline capital project controls and management. Additionally, the Power System is working on improvement of overall project management to ensure proper approval and review processes throughout the life cycle of a project. Training sessions have been held to comply with the processes outlined in the Power System Engineering Process Manual.
- **Real Estate Consolidation:** LADWP is in the process of acquiring a 17.35 acre property adjacent to the existing 35 acre Valley Center facility to consolidate operations. The consolidated property is expected to provide opportunities to optimize facilities/real estate and reduce staff.
- **Procurement Card Program:** Tighter internal controls are being implemented on procurement cards so that charges are only authorized on approved contracts, taking advantage of wholesale prices and competitive bidding processes.
- **Corporate Performance Improvement:** Process improvements and other cost savings opportunities have become a major strategic focus area for LADWP supported by several initiatives, including establishment of a small organization within LADWP responsible for promoting, monitoring, and reporting on performance improvement efforts.

2.3.4 Major Power System Investments

The progress made since the last rate action reflects a commitment to environmental sustainability and system reliability. The Department has made every effort to accelerate programs linked to reducing greenhouse gas emissions and to focus on empowering customers to make their own clean energy choices. The major investments LADWP has made since the last rate action include, but are not limited to, renewable energy supply, transitioning off coal, repowering local power plants, energy efficiency, local solar, and power system reliability.

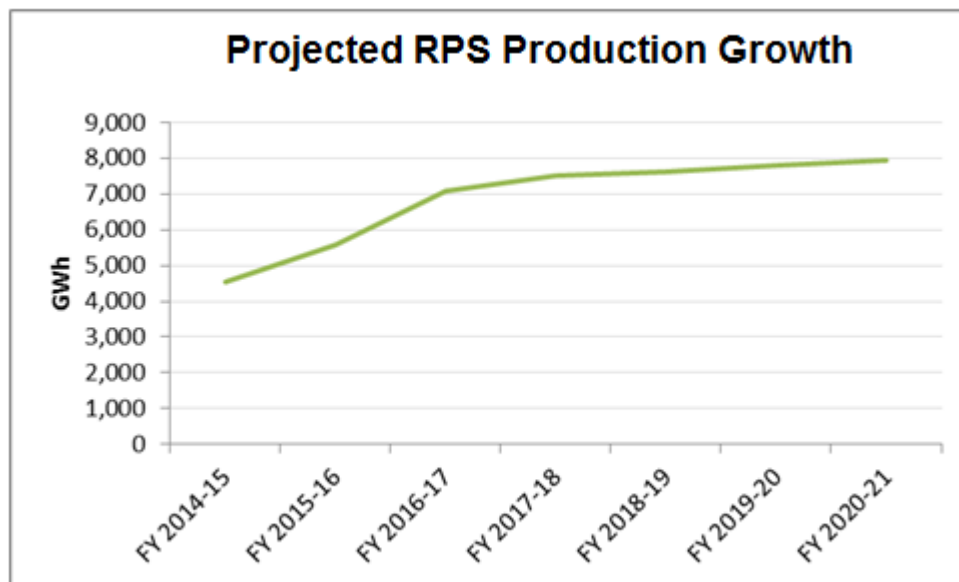
2.3.4.1 Renewable Energy Supply

Through California SB X1-2, the State of California has set Renewable Portfolio Standard (RPS) targets that electric utilities are obligated to meet. Those standards are:

- 20% average RPS for 2011 through 2013;
- 25% RPS by 12/31/16; and
- 33% RPS by 12/31/20.

Since the last rate action, the Department met and exceeded the 20% average RPS and is on track to meet the 2016 and 2020 calendar year targets. In calendar year 2012, 19.5% of the Department’s power generation portfolio was renewable; in calendar year 2014, that number increased to a total of 19.9%. To meet this standard, the Department has engaged a broad spectrum of renewable sources, including solar, wind, hydro, geothermal, and generic renewable energy market purchases. The Department’s existing renewable resources can provide an average annual 4,643GWh of power through a combination of Department owned facilities, purchase power agreements (PPA) and fuel purchases. The main components are wind, small hydro, solar, biogas, and geothermal resources. Figure 11 shows the forecasted increase of the Department’s secured RPS resources over the five-year rate action period.

Figure 11: Projected RPS Production Growth (FY 2014-15 through FY 2020-21)



The Department still has a long way to go to meet future RPS targets and transform the power supply for a sustainable Los Angeles. However, the Department is on track to meet or exceed State guidelines and is proactive in its approach.

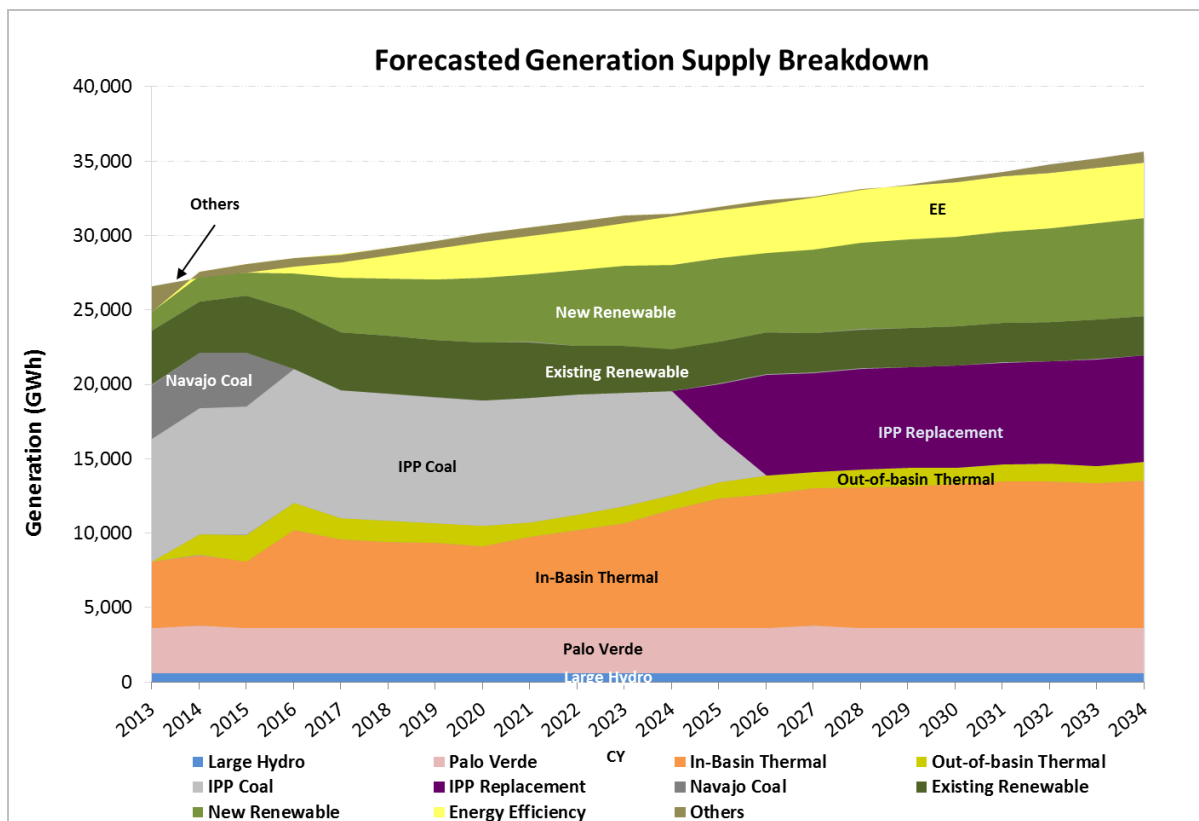
2.3.4.2 Transitioning Off Coal

California Senate Bill 1368 prohibits California utilities from entering long-term financial commitments for base load generation unless the source complies with greenhouse gas (GHG) emissions performance standards. The Department is currently receiving approximately 477MW of capacity from the Navajo Generating Station (NGS) in Arizona and 1200MW of capacity from IPP in Utah. The Department is divesting its stake in NGS prior to the conclusion of its contractual term in 2019. Also, in June 2015, the Board approved a contract amendment to eliminate coal-fired energy production at IPP by 2025. Through these actions, the City of Los Angeles will become the first major city in the United States to commit to becoming coal free.

Pursuant to the Department's accelerated NGS divestment plans, on June 26, 2015, the City of Los Angeles approved a transaction to divest LADWP's 21% interest in the facility by the end of 2016. The accelerated effort is a proactive step in reducing the Department's greenhouse gas contribution. A substantial portion of Navajo supply will be replaced by the Apex gas generating station combined with energy efficiency measures and additional renewable supply.

Forecasts for coal divestiture and the Department generating portfolio are outlined in the current 2014 Integrated Resource Plan (IRP). Figure 12 outlines the forecasted Department generation supply through 2034, illustrating the planned transition off of coal.

Figure 12: Generation Supply Breakdown¹⁴



2.3.4.3 Repowering Local Power Plants¹⁵

The Department is currently the owner and operator of four major power plants in Los Angeles Basin; Haynes Generating Station, located in Long Beach; Harbor Generating Station, located in Wilmington; Scattergood Generating Station, located in Playa del Rey; and Valley Generating Station, located in the San Fernando Valley. These generating stations have aging units that require replacement to bring on-line more efficient combined cycle units with lower NOX emissions.

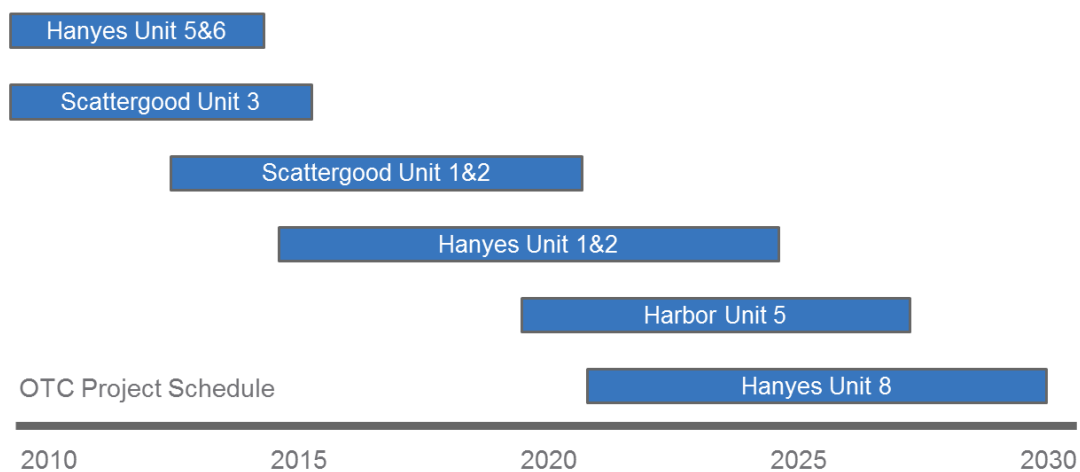
The EPA Clean Water Act mandates that the Department eliminate the intake of ocean water at coastal generating sites which is currently used in a process known as Once-Through Cooling (OTC). Ocean water is cycled through the cooling system of the generators and then deposited back into the ocean, which may have biological impacts. In compliance with the EPA's implementation of the Clean Water Act, the Department is undertaking an extensive effort to rebuild its in-basin thermal plants and eliminate all OTC.

¹⁴ IRP Case Number 3, early divestiture of the Navajo Generating Station.

¹⁵ See Chapter 2 - Appendix C for detailed project information on Once-Through Cooling compliance efforts and current repowering project status.

Each generator replacement timeline is carefully planned to ensure continued access to reliable base load generation for the duration of the compliance project. The Department is on track for completing their repowering efforts and portfolio wide OTC compliance by 2030. The Department has spent \$844.3 million since FY 2012-13 to repower generating stations. \$755.3 million will be spent on repowering and OTC over the next five years. To date, OTC has been eliminated from Harbor Units 1, 2, 3 and 4; Haynes Units 3, 4, 5 and 6. LADWP is on track to exceed compliance deadlines for several generation unit replacement projects as shown in Figure 13, which provides a high level timeline indicating the planned projects and status for each generator in need of replacement.

Figure 13: Once-Through Cooling Elimination Timeline¹⁶



Elimination of OTC continues to be a major program in the Department’s power supply transformation.

2.3.4.4 Energy Efficiency¹⁷

California State Assembly Bill 2021 requires publicly-owned utilities such as the Department to identify and develop all potentially achievable, cost-effective energy efficiency (EE) savings and establish annual targets. It requires the State’s electric utilities to achieve cumulative savings of 10% of total energy consumption levels by 2020. In 2014, the Board exceeded that mandate by adopting an energy savings target of 15% by 2020, enabled by an aggressive energy efficiency program portfolio¹⁸.

From FY 2009-10 to FY 2013-14, the Department has spent \$274 million on EE programs and has achieved 794GWh in net energy savings through several major EE initiatives.

¹⁶ The last phase of upgrades at the Haynes facility also includes replacement of the aging units 9 and 10 which do not currently use OTC. Upgrades at the Harbor facility also include replacement of the aging units 1 and 2 which do not currently use OTC.

¹⁷ See Chapter 2 - Appendix D for detailed EE program information.

¹⁸ See Chapter 2 - Appendix E for the Board Approved Resolution concerning EE targets.

Figure 14: Sample LADWP Energy Efficiency Programs

Small Business Direct Install Program	LAUSD Direct Install Program
Home Energy Improvement Program	Commercial Lighting Efficiency Offer
Low Income Refrigerator Exchange Program	Custom Performance Program
Consumer Rebate Program	LADWP Facilities Upgrade Program
City Plants Program	Energy Efficiency Technical Assistance Program

2.3.4.5 Local Solar Program

The Department has developed multiple options for customers to both install equipment and, in turn, benefit from distributed generation. Customers can sell power to the Department through the Feed-In Tariff (FiT). Customers can credit their bills while receiving an installation incentive through the Solar Incentive Program (SIP).

Solar Incentive Program (SIP): California Senate Bill 1 mandates that all California electric utilities implement a solar incentive program and capped Statewide expenditures at \$3.35 billion. Based on its size, the Department is obligated to offer \$313 million in incentives to its customers. As of FY 2013-14, 14,461 installations have been awarded \$254.3 million in incentives contributing to roughly 2.3% of the RPS composition.

Feed-In Tariff (FiT): The FiT program is designed to encourage the development of distributed generation by offering customers the opportunity to sell energy to the Department at local load centers. There are two major FiT programs - the FiT100 and the FiT50. The FiT100 program is a fixed allocation of distributed solar PPA offers. The FiT50 is a bundled solar program for bidding on the Beacon Solar Project. Since the inception of the program, the Department has achieved several major milestones:

- 130MW of projects reviewed;
- 56MW of projects active;
- 117MW of projects waitlisted;
- 11 FiT projects commissioned totaling 5.4MW;
- 8.2MW of contracts executed and awaiting construction;
- FiT Hotline answers most live calls and responds to messages within 24 hours; and
- FiT50: Board Awarded 22MW to SunEdison and 28MW to Hecate.

2.3.4.6 Power System Reliability Program

In 2014, the Power System Reliability Program (PSRP) was developed by the Department to evolve the Power Reliability Program (PRP) using a more comprehensive approach to maintain system reliability in the short and long-term through the timely replacement of aging

infrastructure. The PSRP is an integrated approach to planning capital expenditures for system reliability designed to minimize future outages; it includes all major LADWP power generation and delivery assets affecting reliability. The PSRP focuses on prioritizing the most sensitive capital expenditures that will impact reliability by targeting critical replacement of aging infrastructure. The PSRP is designed to hold O&M costs at current levels while reducing the system wide age of critical assets. It also utilizes metrics and indices to help prioritize infrastructure replacement and expenditures across the supply chain.

The development of the PSRP is a major step in integrating system reliability projects and prioritizing projects given a Department limited budget. Its goal is to maximize reliability within the spending constraints of the Department.

2.3.5 Greenhouse Gas Emissions Reductions

On June 2, 2014, the U.S. Environmental Protection Agency (EPA) proposed a plan to cut carbon pollution from power plants - the Clean Power Plan, which aims at maintaining an affordable, reliable energy system, while cutting pollution and protecting health and the environment. Specifically, the Clean Power Plan proposes state-specific goals for carbon dioxide emissions from the power sector, as well as guidelines for states to follow in developing plans to achieve the state-specific goals.

A major accomplishment for the Department is the reduction of greenhouse gas (GHG) emissions as a product of Department environmental programs. Through the growth of renewable generation sources, the expansion of energy efficiency and customer solar programs, and several other key environmental initiatives such as electric vehicles, demand response, and smart metering, LADWP has made significant progress in reducing its environmental footprint.

GHG emissions levels for 2013 were 14.3 million metric tons (MMT), which is 20% below 1990 levels. This is largely due to the historical elimination of power from the Mojave and Colstrip coal plants, completed repowering of units at Harbor, Haynes and Valley generating stations with cleaner natural gas-fired replacements, and increasing the Department's renewable portfolio from 3% in 2003 to 20% of overall sales, on average, over the period 2011-2013. GHG emissions levels for 2013 show an increase compared to 2012 in which LADWP achieved a 22% GHG emissions reduction below 1990 levels. The reason for the 2012 decrease in GHG emissions levels was due to an anomaly. At the end of 2011, LADWP experienced a major cable failure resulting in damage to equipment at IPP, which took one unit off-line for six months. Since half of LADWP's IPP energy was unavailable, other cleaner burning resources were used. The IPP damage has since been repaired, and the GHG emissions levels for 2013 returned to anticipated quantities¹⁹.

¹⁹ See 2014 Integrated Resource Plan: See 2014 IRP: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-integratedresourceplanning/a-p-irp-documents?_afrctrl-state=10dc8885y3_4&_afrcLoop=113042341268089

The proposed divestment of coal fired generation from NGS and elimination of coal-fired generation at IPP will be a major step in reducing GHG emissions. The accelerated divestment of NGS at the end of 2016 and elimination of coal-fired energy deliveries from IPP in 2025 will put the Department ahead of plan by reducing emissions an extra 5.59MMT of CO₂ per year, ahead of schedule.

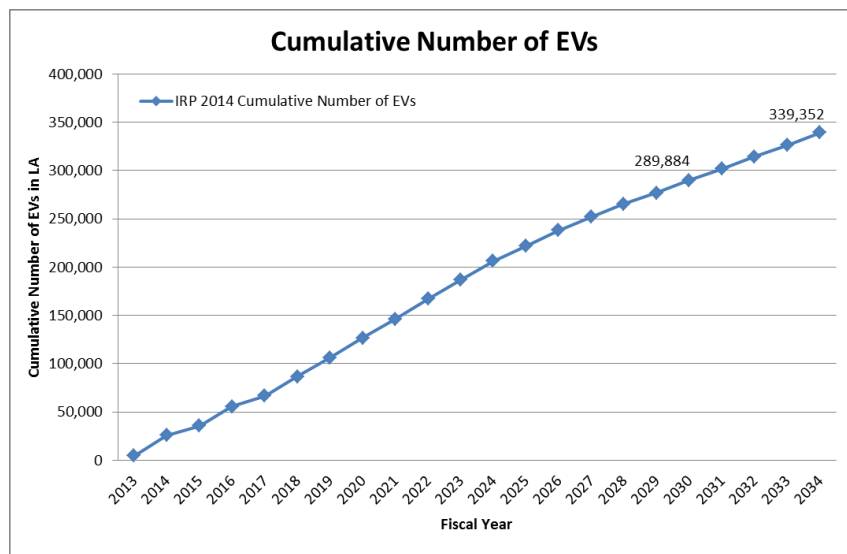
2.3.6 Electric Vehicles (EV)

The Department anticipates that the electrification of cars will be a significant step toward reducing greenhouse gas emission in Los Angeles and is therefore a major component of the Department's strategic plan. Rebates available to residential and commercial customers are covered by the program "Charge-Up LA! - Home, Work, and On The Go."

- The residential program provides rebates of up to \$2,000 to customers for home chargers and installation costs. The first residential program extended from May 2011 to June 2013. The second round of rebates began in August 2013 and will end June 2015. LADWP has awarded over 1,400 rebates to date.
- Commercial customers can receive up to \$750 for hardwired wall-mounted EV chargers and up to \$1,000 for stand-alone pedestal chargers. The rebate does not cover the cost of installation. One EV charger rebate is available to commercial customers who have a minimum of five parking spaces available to employees, customers, visitors, and/or tenants. One additional EV charger rebate is available for each additional 20 parking spaces. The first round of rebates was budgeted for \$2 million, half of which was paid for by the Department of Energy as part of the Smart Grid Demonstration Program. The second round of rebates is also budgeted at \$2 million and is funded by the proceeds for a clean air grant.
- LADWP has worked with customers to upgrade Los Angeles' 350 existing public charging sites, and EV chargers have been installed at high profile locations, such as the LA Convention Center and LAX. To date, LADWP has installed over 300 Level 2 chargers on City properties.

The Department anticipates a significant increase in the number of electric vehicles in the coming years as illustrated in Figure 15.

Figure 15: Cumulative Electric Vehicle Forecast FY 2012-13 to FY 2033-34



2.3.7 Integrated Resource Plan

The Integrated Resource Plan (IRP) is a valuable tool for long-term planning and for reducing fluctuations in Department expenditures due to future uncertainty. One of the major goals of the IRP is to identify a portfolio of generation resources and other Power System assets required to meet the City’s future energy needs at the lowest possible cost and risk, consistent with the Department’s environmental priorities and reliability standards. Many states and regulatory agencies require development of an IRP prior to approval of procurement programs or electric rate increases. This document goes beyond traditional integrated resource planning and incorporates additional planning elements to form a comprehensive Power System plan. It is intended that the IRP will drive the priorities, financial planning, and budgeting effort for the Power System as it considers a 20-year planning horizon to guide the Department as it executes major new and replacement projects and programs. The overriding purpose is to provide a framework to assure the future energy needs of Department customers are met in a manner that balances the following key objectives:

- Superior reliability and supply of electric service;
- Competitive electric rates consistent with sound business principles;
- Responsible environmental stewardship exceeding all regulatory obligations; and
- Focus on the customer as a primary driver of Department programs.

In an effort to solicit feedback and review from stakeholders in the community, the 2014 IRP includes an Advisory Committee and Public Outreach Process. This helped to establish the goals and objectives of the IRP analysis while incorporating public comment.

The Department finalized the IRP²⁰ in December 2014. The IRP is published every other year, with true-ups in off years. The 2014 IRP is the most recently completed document since the plan was last published in 2012.

2.3.8 Keeping Rates Competitive and Financial Planning

One of LADWP's main strategic goals is to maintain an overall rate advantage while funding essential utility needs. Developing the proposed rates is a balancing act between the need to plan for a long-term power supply, provide reliable quality service, and continue to meet regulatory requirements and the desire to maintain reasonable customer rates. In addition, contractual obligations for wages, benefits and pensions and the impact of inflation must be considered.

The Department has generally positioned itself well to meet its spending obligations in a sensible and cost effective manner. The Department is expecting \$1.60 billion annually in capital expenditures, \$1.05 billion annually in O&M expenditures, and a net increase of \$3.75 billion in principal debt over the next five years. The bulk of these expenditures are costs related to critical infrastructure reliability programs or are legally mandated programs, such as Renewable Portfolio Standard (RPS) requirements.

This section discusses some of LADWP's efforts to control costs and avoid unnecessary rate increases.

2.3.8.1 Access to Bond Markets

As discussed throughout this report, LADWP has made significant investments in the Power System and requires additional investments in the future. Most of these investments are typically financed through borrowed funds, making it imperative that LADWP have regular and continued access to capital markets at reasonable interest rates. The Department has identified maintaining low cost access to inexpensive capital markets as a core business objective; therefore, maintaining sound financial metrics, and thus quality bond ratings are critical. To keep good ratings, the Department must demonstrate to credit rating agencies quality financial metrics with a low risk profile.

2.3.8.2 Refinancing and Refunding

The Department has taken advantage of its quality credit ratings by engaging in refinancing and refunding activities. Refinancing and refunding activities can take advantage of economic conditions and good interest rates to provide significant savings to the Department. In the current interest rate environment, refinancing and refunding has saved the Department \$302.5 million in debt service and interest expenses over the lifetime of its bonds, or \$273.0 million in present value dollars since 2009 as outlined in Figure 16.

²⁰See 2014 IRP: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-integratedresourceplanning/a-p-irp-documents?_adf.ctrl-state=10dc8885y3_4&_afLoop=113042341268089

Figure 16: Refinancing and Refunding Savings²¹

Year	Power System Savings(\$M)	Present Value of Savings(\$M)
2009	\$13.28	\$7.63
2010	\$5.93	\$5.00
2011	\$107.33	\$102.12
2012	\$34.36	\$25.38
2013	\$111.74	\$104.73
2014	\$29.89	\$28.13
Total	\$302.54	\$272.99

2.3.8.3 Regulatory Assets

Beginning in FY 2011-12, LADWP has treated several programs, including Energy Efficiency programs as well as the unfunded pension liability, as regulatory assets, allowing the cost to be amortized over the life of the programs' assets rather than being collected in one year in accordance with Generally Accepted Accounting Principles (GAAP). Regulatory asset accounting will benefit LADWP by deferring the impact of these programs on customer rates without impacting the debt to equity ratio. With the growth of the programs, this classification has helped to minimize the immediate rate impact of applicable programs.

2.3.8.4 Fuel Costs and Natural Gas Hedging

A major Department expenditure each year is fuel. The Department must purchase and account for significant volumes of fuel and related fuel costs (as well as its exposure to fuel price volatility) in its budget and recover those costs in its rates. The prices for various fuels are largely outside the Department's control and fluctuate as a result of market forces.

Fuel costs are driven primarily by free market forces and can fluctuate significantly year to year, and within a year. This sort of volatility has a major effect on the customer rates, as fuel costs passed through by the Variable Energy Adjustment factor. The Department proactively mitigates the risk of price volatility through financial hedging programs.

The Department's gas hedging program, which began in 2002, was implemented against the backdrop of extreme volatility in natural gas prices to maintain stable net income levels and supply reliability. Prior to FY 2008-09, LADWP was active in its natural gas hedging program and had hedged up to 50% of its budgeted volume requirements using dollar cost averaging method for up to ten years forward. No new physical or financial hedges were entered into from 2009-2013 due to several factors including (1) falling gas prices, (2) a rate adjustment that allowed pass-through (without caps) of all fuel costs; (3) expected increased production volume from the natural gas reserves in Pinedale, Wyoming and the anticipation of long-term fixed-price biogas contracts as part of its Renewable Portfolio Standards (RPS) program. However, since

²¹ See Chapter 2 - Appendix F for yearly bond refinancing information.

gas prices remain the largest driver of unplanned rate volatility, the Department recognized that a properly structured hedging program was in the customer’s interest. The Department has recently begun physical hedging, and, though dormant for a while, the Department plans to reestablish a financial hedging program to help mitigate the price volatility of the natural gas it purchases²².

The main objective of LADWP’s hedging program at this time is to mitigate commercial risk by reducing the volatility in the price of natural gas used in the production of electricity to serve retail customers. The program is not designed to necessarily reduce the cost of fuel. LADWP’s budgeted spending on natural gas is on the order of \$200 million per year, based on the current price and usage outlook, but the amount could be substantially more if prices increase. The Department recognizes that customers appreciate a degree of certainty in their bills enabled by hedging.

A program-wide audit done by the Department’s consultant recommended a hedging framework that enables an integrated approach for developing and evaluating hedging strategies. Per the recommendations of the Department’s consultant, the Department is moving toward a combination of physical and financial hedging gas contracts for approximately 50% of the required volume over ten-year periods.

2.3.9 High-Level Benchmarking

In February 2015, the Department completed an initial high-level benchmarking study. The study identified areas where LADWP is comparable or better than industry performance and where LADWP has opportunities for improvement. Key findings of the benchmarking study for the Power System are summarized in Figure 17.

Figure 17: Power High-Level Benchmarking Results

Benchmarking Area	Quartile	Notes
Total O&M Costs per Customer	2 nd	The Power System total O&M costs per customer are in the 2nd quartile. This is comprised of Generation, Transmission, Distribution, Customer Service, and Administrative and General (A&G) O&M functional costs including labor and benefits. This metric is one of the LADWP’s most significant operational metrics.
Distribution O&M Costs	4 th	LADWP’s lower capital spending may be a contributory factor driving this metric into the 4 th quartile. This metric is expected to benchmark better in the future with increases in Distribution capital investments (e.g., PSRP). These higher levels of Distribution O&M may have favorably impacted reliability as evidenced by 1 st and 2 nd quartile SAIFI and SAIDI benchmarks, respectively.

²² The hedging program is authorized through sections 10.1.1, 10.5.3 and 23.135 of the Los Angeles Administrative Code, as well as governed by various internal LADWP policies and internal controls.

Benchmarking Area	Quartile	Notes
Customer Service O&M Costs per Customer	1 st	LADWP benchmarks favorably in the 1 st quartile when compared to peer sets comprised primarily of IOUs.
Reliability (SAIFI and SAIDI)	1 st /2 nd	LADWP ranks in the 1st and 2nd quartile for both metrics, which demonstrates a high degree of system reliability relative to peers nationwide. These results are especially noteworthy given LADWP's historically low capital spending particularly in the distribution area relative to peer utilities.
Transmission and Distribution Line Losses	4 th	Energy losses of 13.1% are higher due to significant transmission line losses for generation plants located in remote areas from which approximately 60% of all LADWP's energy is generated. LADWP's lower distribution voltage relative to peers may also be driving this metric higher. Efforts are underway to mitigate any potential "non-technical" line losses such as non-billed customers, fraud and energy theft.
Key Financial Metrics	N/A	LADWP's key financial metrics are in line with industry peer sets.

The high-level benchmarking summary provides a roadmap that will help identify areas for further study and analysis. Some of the processes to study will include, but may not be limited to overtime, outside contracting and salary/pension/healthcare costs. Processes that may present opportunities for improving financial and/or Departmental performance will undergo business process mapping studies. These studies will compare industry best practices and identify next steps for LADWP to move toward best practices.

2.4 CUSTOMER OPPORTUNITIES PROGRAMS

The purpose of this rate increase is to recover increasing O&M and capital costs incurred by the Power System and provide reliable electricity to the citizens of Los Angeles. Though on an average basis, rates may increase, LADWP provides many customer savings programs to mitigate increases in total bills through conservation efforts.

A sample list of programs that are available to LADWP customers include:

- **Low Income Refrigerator Exchange Program:** This program delivers free new energy efficient refrigerators to low-income and senior/lifeline LADWP customers who have refrigerators meeting a certain criteria. These older, inefficient refrigerators are a major source of electricity consumption as they run all day, every day and are not built to current Energy Star standards. The program ensures that the old refrigerators stay offline and cannot burden the grid by picking them up and recycling them when a new one is delivered.
- **Home Energy Improvement Program:** This is a free direct install program which targets residential customers. It offers a full suite of free products and services to improve

energy efficiency in the home by upgrading or retrofitting a home’s envelope and core systems. Targeted systems include energy efficient upgrades such as lighting systems.

- Local Solar Programs: The Solar Incentive Program and the Feed-In Tariff Program offers customers the opportunity to leverage distributed generation to either reduce costs or sell power back to the Department.

2.5 RESPONSE TO CITY COUNCIL RECOMMENDATIONS

On September 25, 2012, the Los Angeles City Council adopted an amended committee report with ten recommendations associated with LADWP’s Incremental Electric Rate Ordinance. LADWP has made significant progress toward addressing the recommendations by working collaboratively with the Ratepayer Advocate, Chief Legislative Analyst, and Chief Administrative Officer. Programs or other activities have been developed to address all of the recommendations. While some activities are ongoing, LADWP has made significant progress in each area. However, the nature of some of the recommendations and the activities to address them are long-term.

Also, the Department has submitted several reports outlining the status of implementation activities for each recommendation; the last report was provided to the City Council in June of 2014. The current status for each item is shown in Figure 18 below.

Figure 18: Council Recommendations Response Status Highlights²³

Item	Recommendations	Comments
a.	Conduct negotiations with labor to find common ground that allows for greater flexibility to contract out effectively and bring salaries and benefits closer to other power utility providers.	New labor MOU has been implemented through 2017.
b.	Reevaluate and consider replacing the surcharge-based restructuring approach with fully structured rates once legal considerations allow.	LADWP has determined that the conditions underlying the current “surcharge based approach” have not changed such that it should be replaced. Changes to the structure of the surcharge are proposed to reflect current market conditions; the Department’s proposed rate structure is outlined in Chapter 5.
c.	Conduct a new formal cost of service study in order to prepare for future power rate restructuring.	A new cost of service study has been completed. ²⁴

²³ See Chapter 2 - Appendix G for the full response to Council Recommendations.

²⁴ The new cost of service study is discussed in detail in Chapter 4.

Item	Recommendations	Comments
d.	Conduct a benchmarking assessment to review the cost per project for the repowering program and the Power Reliability Program to ensure cost reasonableness.	The core benchmarking work was completed during the development and procurement phase of the Scattergood Unit 3 repowering project. The Department will embark on another benchmarking and cost estimate for the next repowering project, Scattergood Units 1 and 2. The Power Reliability Program has been renamed the Power System Reliability Program and grown to include the entirety of the system supply chain, including generation assets.
e.	Identify opportunities to contract out and explore the potential savings, including the benchmarking of staffing and outsourcing levels against utility peers.	The Department has completed its initial high-level benchmarking and identified areas where LADWP's performance is good or better than industry norms and where opportunities for improvement may exist. This high-level study provides a "roadmap" for follow-up in-depth studies in certain areas that may be conducted in the future.
f.	Review overtime expense allocation, as well as the Departments contractual requirements that have an impact on overtime.	Overtime requirements were modified as part of the new IBEW MOU.
g.	Complete a rigorous review of the Department's hedging plan to lock in fuel prices.	The Department contracted a consultant to conduct a comprehensive review of LADWP's hedging program, and several of their findings and recommendations have been implemented by the Department. The Department reinstated the gas hedging program and targets 50% of their required gas volume to be hedged.
h.	Establish a plan for energy efficiency that maintains expenditure levels at an achievable and cost-effective level.	The Department has adopted a 15% Energy Reduction target enabled by aggressive energy efficiency programs. ²⁵
i.	Seek greater Department efficiencies by pursuing process improvement efforts across a range of area and processes.	Identification of efficiency opportunities is underway as a regular part of business.
j.	Submit a semi-annual report to the Mayor and the City Council regarding the status of the Renewable Portfolio Standards program and its impact on rates.	The Department submitted a comprehensive report to the City Council regarding the RPS program. This report provides a current update in Chapter 3 – Section 3.3.2.

A detailed update of each recommendation is included in Chapter 2 - Appendix G.

²⁵ The Department's Energy Efficiency plan is discussed in detail in Chapter 2 - Appendix D.

2.6 RECENT RATE ACTION HISTORY

LADWP electricity rates have historically been lower than most of its POU and IOU peers in California. A benchmarking analysis comparing LADWP to its utility peers reveals that LADWP's electricity prices from 2009 to 2014 were lower than average and lower than those of nearly all of its POU and IOU peers in California.

In 1998, in response to the deregulation of the electric utility industry for IOUs in California, the Department voluntarily froze its power rates and significantly reduced costs and headcount. Rates remained frozen for eight years; during this period, LADWP's rates became among the lowest in the State.

During the rate freeze time period, the power delivery infrastructure continued to age without any meaningful replacement program. After the rate freeze expired, the Department began the process of developing a financial plan for FY 2007-08 to FY 2009-10 to raise revenues to fund the increasing costs of operations, infrastructure upgrades, and other reliability improvements, and to meet new legal and regulatory mandates. On April 9, 2008, the City Council approved Ordinance No. 179801 for a multiyear revenue/rate increase as follows:

- 2.9% - May 19 2008;
- 2.9% - July 1, 2008; and
- 2.7% - July 1, 2009.

In that rate action, the Council approved the establishment of the Reliability Cost Adjustment (RCA) factor to start funding long delayed upgrades for the Power System's infrastructure reliability. LADWP invested \$2.7 billion in infrastructure improvements during FY 2006-07 through FY 2009-10.

In 2010, the Department was facing continued rising costs to achieve continuing aggressive regulatory and legal mandates; to maintain and upgrade the Power System infrastructure; and to meet all other critical needs necessary for operating and providing reliable service. A rate increase for FYs 2010-11 and 2011-12 was planned to continue to provide the funds needed to address these rising costs. However, due to the economic conditions at the time and the impact an increase in rates would have on City residents, the Department suspended any new base rate increases for those two fiscal years. In order to offset the loss of anticipated revenue, the Department reduced capital expenditures by \$900 million, postponing reliability improvement programs and preventive maintenance while ensuring funds were still available to meet mandatory regulatory requirements.

The Department subsequently proposed incremental rates for FY 2012-13 and FY 2013-14, which the City Council approved within two ordinances²⁶ after RPA review and adjustments on October 23, 2012.

These incremental rates were used to finance a variety of critical programs and mandated Department expenditures. The rates funded major capital projects involving repowering as well as expanded energy efficiency programs and steps to meet the intermediate RPS target.

Figure 19 summarizes LADWP’s power rate actions from 2003 to 2015.

Figure 19: Recent Rate Action Timeline



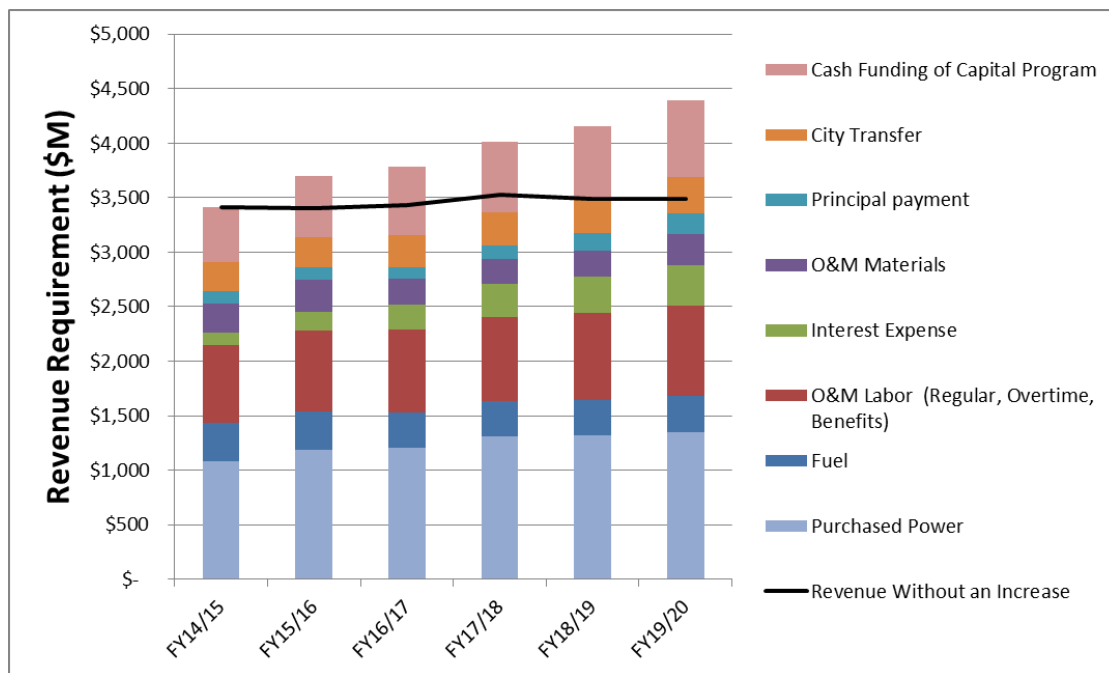
2.7 WHY A RATE INCREASE IS NEEDED NOW?

This report highlights major actions that LADWP has taken to reduce the need for interim rate actions up until this point. However, the Department is at a point where a rate increase is required to improve power system infrastructure, continue to meet regulatory requirements and develop a sustainable electric supply while maintaining a healthy financial standing. This new rate action allows LADWP to meet its objectives and obligations while continuing to maintain competitive rates relative to peer utilities.

Current revenues will be inadequate to fund the major Power System programs as summarized by a graphical representation of the income statement in Figure 20.

²⁶ Ordinance Nos. 182273 and 182288.

Figure 20: Current Revenue Shortfall (Given No Rate Increase)



* All amounts based on income statement and capital funding include depreciation, net interest expense, and retained earnings.

To meet the Power System’s revenue requirement, revenues will have to increase \$180 million, on average, per year through the period of FY 2015-16 through FY 2019-20 as reflected in Figure 21.

Figure 21: Year-Over-Year Rate Driver Breakdown of Proposed Retail Rate and Revenue Requirement Increase Compared to Full Year FY 2014-15

Program	Rate Driver	Regulatory (or Other External) Requirement	Average Annual Revenue Requirement Increase (\$M)	System Average Annual Increase (Cents/kWh)	Average Annual Percentage Increase (%)
Power System Reliability Program	Power System Reliability		26	0.11	0.68%
Power Supply Transformation Program	Coal Replacement	✓	17	0.07	0.48%
	Once- Through Cooling	✓	4	0.02	0.09%
	Renewable Energy	✓	36	0.15	0.96%
	Subtotal – Increase		57	0.24	1.53%

Program	Rate Driver	Regulatory (or Other External) Requirement	Average Annual Revenue Requirement Increase (\$M)	System Average Annual Increase (Cents/kWh)	Average Annual Percentage Increase (%)
Customer Opportunities Program	Energy Efficiency	✓	60	0.26	1.54%
	Customer Solar Programs	✓	18	0.07	0.46%
	Subtotal – Increase		78	0.33	2.01%
Fuel Costs			18	0.08	0.46%
Total Average Annual Increase			\$180	0.76	4.68%

A rate increase is needed beginning FY 2015-16 to fund critical programs and mandates without risking significant deterioration of the Department’s financial profile. However, if incremental revenue is not provided, the Department would likely not be able to meet its mandated regulatory and legislative obligations without significant reductions in the personnel and wages and benefit costs associated with more discretionary programs such as power reliability and customer service. Further consequences of a revenue shortfall could include:

- Failure to meet financial metrics; and
- Not accruing the total revenue requirement to fund system reliability and energy efficiency programs.

The above consequences would be apparent to the credit rating agencies and likely lead to a downgrade or at a minimum, have the Department’s bond ratings put on credit “watch” with negative outlook. A downgrade to the Department’s Power System bond rating ensures consistently more expensive rates in the long-term.

2.7.1 Financial Metrics

The fiscal health of an organization is often indicated by financial metrics. Financial metrics reflect spending, debt, and revenues to give a snapshot of overall financial performance. The Department must closely manage and monitor the Power System’s key financials throughout the five-year rate period to avoid the deterioration of these metrics.

The Department faces a significant challenge in maintaining financial stability while funding both ongoing operations and the additional capital and O&M expenditures. Without a rate increase, the Department credit ratings could be downgraded, resulting in higher borrowing costs and, given the mandates the Department is required to meet, higher customer rates.

Without a rate increase, O&M costs continue to rise and impact important financial metrics:

- Debt Service Coverage (DSC): This is a ratio that divides the funds available for debt service by the sum of long-term principal and total interest payments. It is the amount of cash flow available to meet annual interest and principal payments on the Department's debt.
- Capitalization Ratio: Defined as the long-term debt level divided by the sum of long-term debt plus equity. Companies with extraordinarily high capitalization ratio are considered to be a higher risk. Companies with a high capitalization ratio may also find it difficult to secure additional bond issues in the future.
- Operating Cash Target²⁷: Minimum target for operating cash reserves (often defined as days cash on hand or a total cash target amount).
- Full Obligation Coverage Rate: Measure of the ability to pay debt service and fixed charges (net off-balance sheet debt service for LADWP); $(\text{Funds Available for Debt Service} + \text{Fixed Charges} - \text{City Transfer}) / (\text{Debt Service} + \text{Fixed Charges})$.

2.7.2 Projected Expenditures

The Department has generally planned its financial obligations in a sensible and cost effective manner. For example, the Department owns or has contracted with a portfolio of renewable assets that are fairly diverse (both technologically and geographically), including cost-effective wind and biogas, and generally takes advantage of existing LADWP transmission. To eliminate OTC, the Department has initiated an ongoing effort to repower its in-basin generation in a manner that will increase the flexibility and performance of the system.

Although necessary and well-conceived, the costs of legal compliance and maintaining reliability are significant, requiring an ever-increasing need for additional debt financing:

- Capital expenditures are projected to average \$1.60 billion annually over the five years of the proposed rate plan;
- During the rate request period, long-term debt will increase by \$3.75 billion from \$10.45 billion in FY 2014-15 to \$14.20 billion in FY 2019-20; and
- O&M expenditures are projected to average \$1.05 billion annually over the five years of the proposed rate plan.

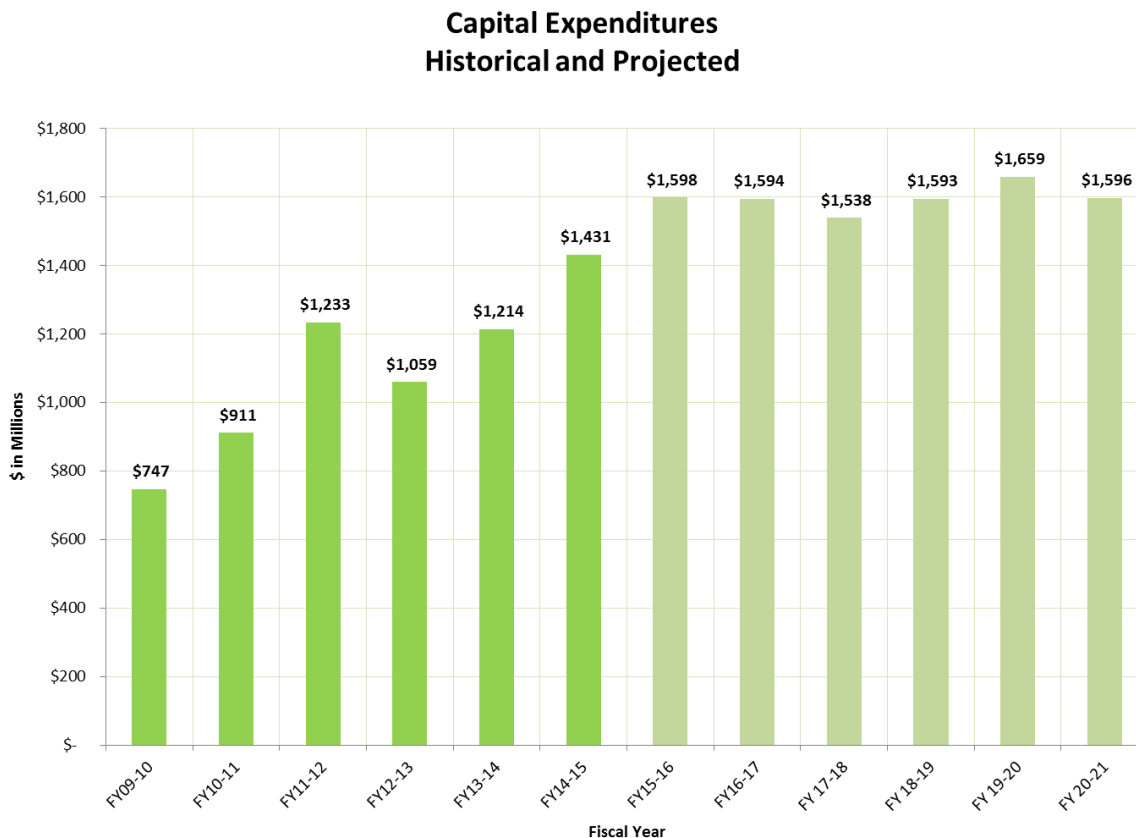
2.7.3 Capital Spending Requirements

As previously discussed, funding Department initiatives to replace aging infrastructure, transform the power supply to meet external mandates, and enhance customer opportunities programs will drive significant increases in Department capital spending. As shown in

²⁷ For the Power System, this is the cash balance resulting from the financial plan and proposed rates plus the \$500 million Debt Reduction Trust Fund (DRTF) which, combined, provide the Department with at least 170 days operating cash.

Figure 22, proposed capital spending will average \$1.60 billion annually over the proposed five-year rate period compared to \$1.17 billion on average for the previous five years (FY 2010-11 through FY 2014-15), representing a 37% average increase.

Figure 22: Capital Expenditures Historical and Projected



2.7.3.1 Additional Debt

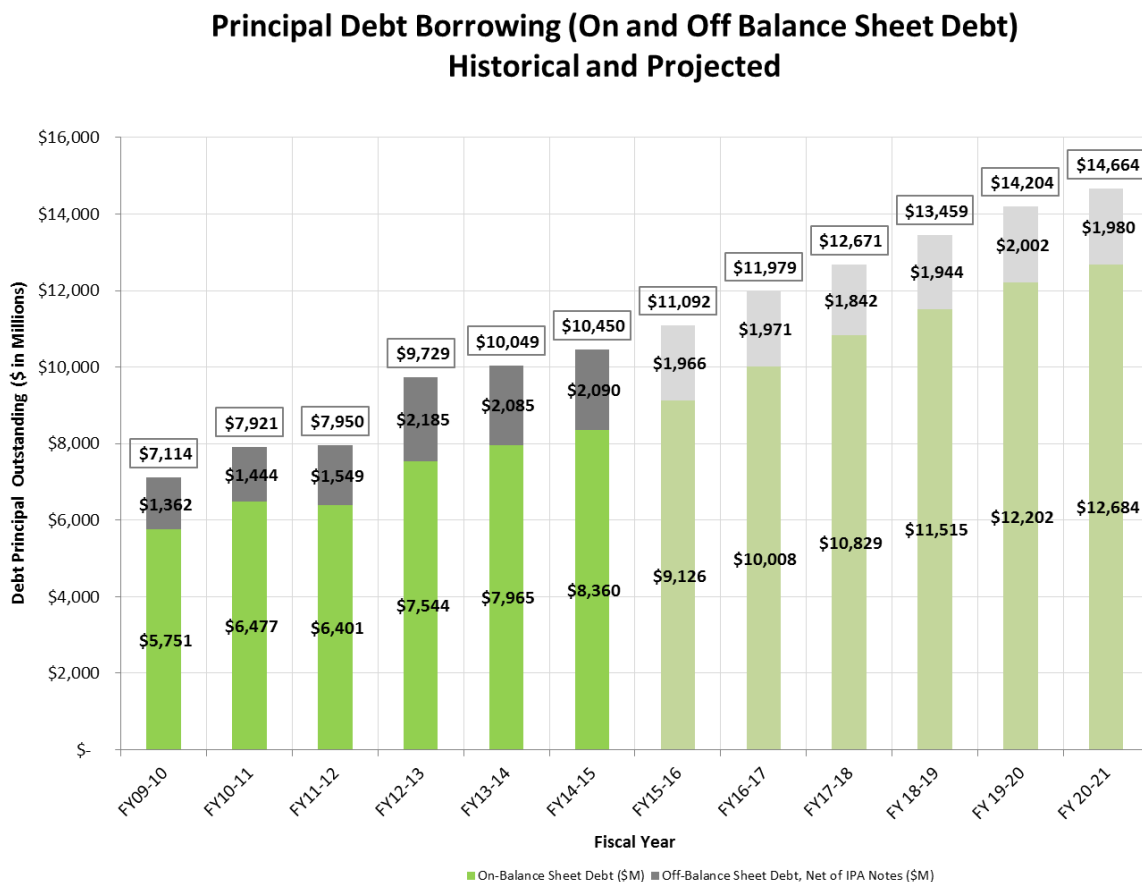
The Department must find the financial resources to fund the capital requirements discussed above. While some funding will come from the increased revenues produced by the proposed rates, the majority will be financed through new debt. As noted above, the Department’s on balance sheet debt will grow by \$3.75 billion over the five years of the proposed rate plan.

A challenge for the Department will be to maintain its strong financial performance and current bond ratings in spite of rising debt. The Department also currently holds about \$2.1 billion in off balance sheet net debt driven by costs related to investing through SCPA, IPP, the Southern Transmission System and RPS pre-payments. This form of financing allows the Department to share costs with other municipal utilities and other entities while maintaining healthy financial metrics and capitalization ratios to ensure bond market access at favorable interest rates to fund its own capital and O&M expenses. While this debt is not classified as a liability and is excluded

from the calculation of the Department’s financial ratios, it does contribute to additional debt service costs.

Figure 23 summarizes the Power System’s on and off balance sheet debt.

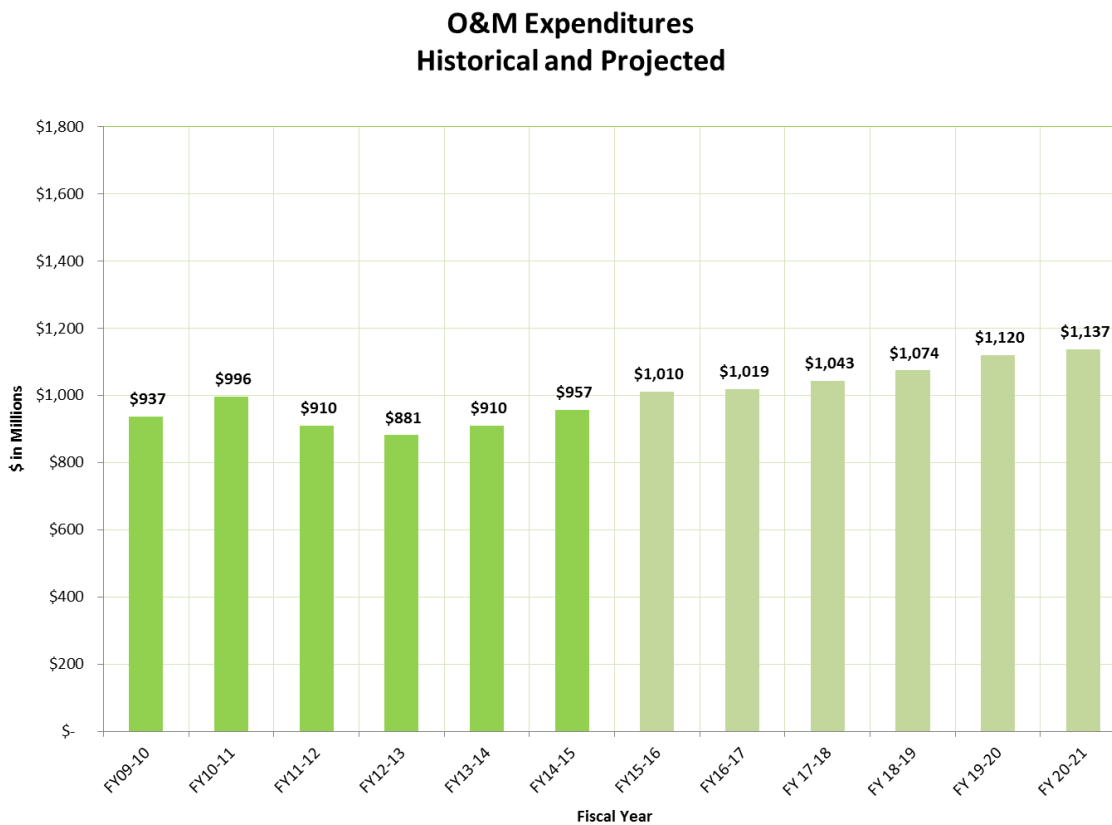
Figure 23: On and Off Balance Sheet Debt, Historical and Projected



2.7.4 Operations and Maintenance Expense Requirements

O&M expenditures will also increase a modest amount. The forecast of O&M expenses, shown in Figure 24, averages \$1.05 billion per year for FY 2015-16 through FY 2019-20. In the figure, a noticeable decrease in O&M spending can be seen in FY 12-13. This was due in part to vendor contract expiration and uncertainty related to the time period for which future contracts could be funded. The proposed five-year rate increase is intended to counteract these situations and allow the Department to realize cost savings through longer term contracts and complete the necessary maintenance to ensure reliable service.

Figure 24: O&M Expenditures Historical and Projected



The proposed increases in capital spending and O&M expenses are required to begin implementing a more sustainable infrastructure and power supply for the future of Los Angeles.

In order to reduce O&M costs, LADWP has also taken significant steps to reduce the higher than normal level of uncollectible revenue that has temporarily resulted from the recent new customer information system (CIS) implementation. Efforts to increase revenue collection include, but are not limited to:

- Implementing on-line, self-service payment options;
- Reviewing bill accuracy;
- Reducing estimated bills to 5% of total bills (which is the current target level);
- Decreasing call wait times to pre-implementation levels; and
- Reducing collection thresholds (amount past due and length of time past due before collection efforts begin).

As system remediation allows, additional payment and other self-service options will be added and budget billing (i.e., level pay) will be introduced. Customer outreach and education plans about programs and services will also be expanded. These efforts are designed to reduce the

level of uncollectibles from 1.56% in FY 2014-15 to 1.00% in FY 2019-20 of total operating revenue.

2.7.5 Rating Agency Considerations

The major credit rating agencies – Standard and Poor’s (S&P), Fitch Ratings (Fitch), and Moody’s – continually assess the credit of entities and ascribe ratings to their bonds. S&P, Fitch, and Moody’s currently rate the Power System at AA-, AA-, and Aa3, respectively. Rating agencies assign credit ratings to specific debt instruments, and their underlying issuers, and indicate the likelihood of default for a given instrument. These ratings are used by the marketplace to help indicate the value of the bond relative to other debt instruments. For a bond of a given term and character, a higher credit rating will typically be associated with a higher bond value and thus a lower interest rate for the borrower.

Financial performance and metric evaluation criteria have been established by these three agencies. Credit ratings are based on:

- An assessment of an entity’s financial risk profile (indicated by financial ratios); and
- A more qualitative business risk profile that takes into account additional factors (such as regulatory and operational restrictions and mandates that may impact its long-term financial position).

2.7.5.1 Financial Risk Profile

Each of the major rating agencies uses a comprehensive approach to assess the risk profiles of a specific debt instrument. Financial ratios that address profitability, capital structure/leverage, and cash flow provide critical points of reference for assessing financial risk. Medians for these ratios provide an illustration of where a specific issuer “fits” relative to its peers within a specific industry.

Public Resources Advisory Group (PRAG) undertook a review of the Power System’s financial metrics in June 2013 and found that there was some potential for relaxing the financial metrics for the Power System, which in turn helps to reduce the revenue requirement and customer rates.²⁸ Based on PRAG’s advice, the Board adopted these financial metrics for FY 2014-15 and used them to develop the current financial plan and proposed rates. Figure 25 shows the adopted financial targets.

²⁸ See Chapter 2 - Appendix H for the full PRAG report recommendations.

Figure 25: Financial Metric Targets

Metric	Current Target (As of May 2014)	Previous Target (Sept 2012)
Operating Cash Target/Days Cash on Hand	170 Days	\$300 million ²⁹
Full Obligation Coverage Rate	1.70	N/A
Debt Service Coverage	2.25	2.25
Capitalization Ratio	Less than 68%	Less than 68%

The Department's financial plan and proposed rates are designed to ensure access to bond markets at the lowest reasonable cost. Figure 26 provides the financial metrics targeted in the Department's financial plan and proposed rates for the next five fiscal years. The Department's projected cash on hand, debt service coverage ratio, and capitalization ratio are shown in Figure 27, Figure 28, and Figure 29.

Figure 26: Financial Metrics of the Proposed Five-Year Rate Plan

	Target	Current Year	Proposed Rate Period					Five-Year Average
		FY 14-15	FY 15-16	FY16- 17	FY17- 18	FY 18-19	FY 19-20	
Operating Cash Target (Days Cash on Hand)	170	170	170	170	170	170	170	170
Full Obligation Coverage Rate	1.70	1.70	1.80	1.70	1.73	1.79	1.85	1.77
Debt Service Coverage	2.25	2.62	2.67	2.66	2.50	2.35	2.32	2.50
Capitalization Ratio (%) ³⁰	<68.0	60.67	62.48	64.27	65.70	66.74	67.70	65.38

²⁹ Sufficient operating cash to support operating costs for approximately 170 days.

³⁰ LADWP continues to evaluate the impact of its capital programs on its capitalization ratio to maintain financial metric targets and ensure that the current bond rating could be maintained.

Figure 27: Operating Cash Target

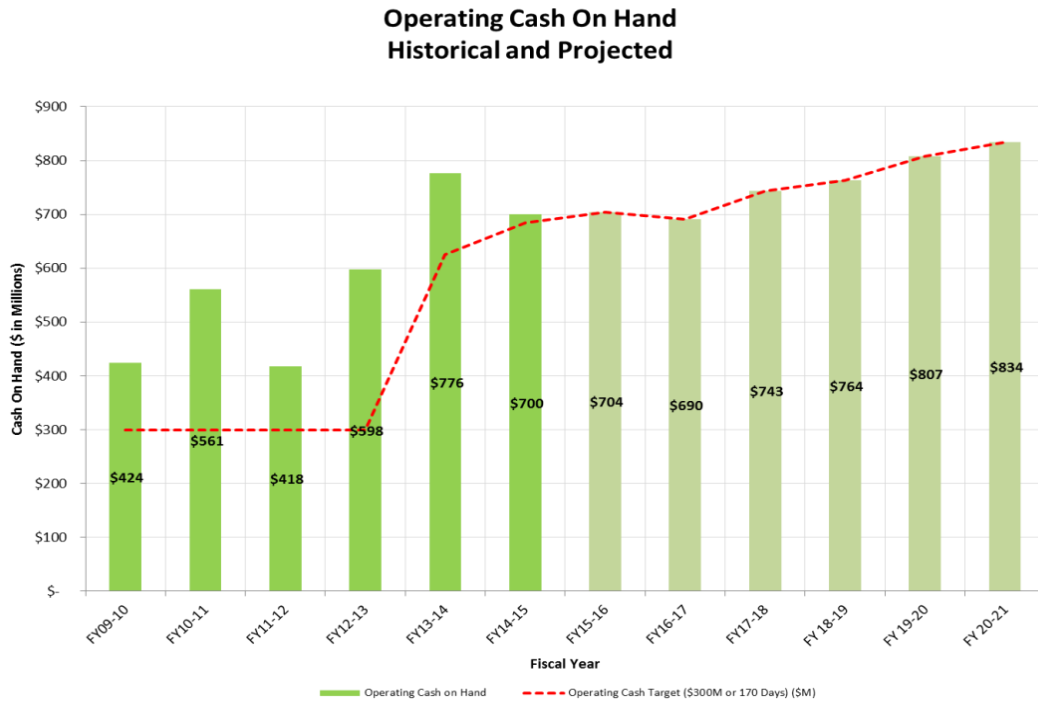


Figure 28: Full Obligation Coverage Rate and Debt Service

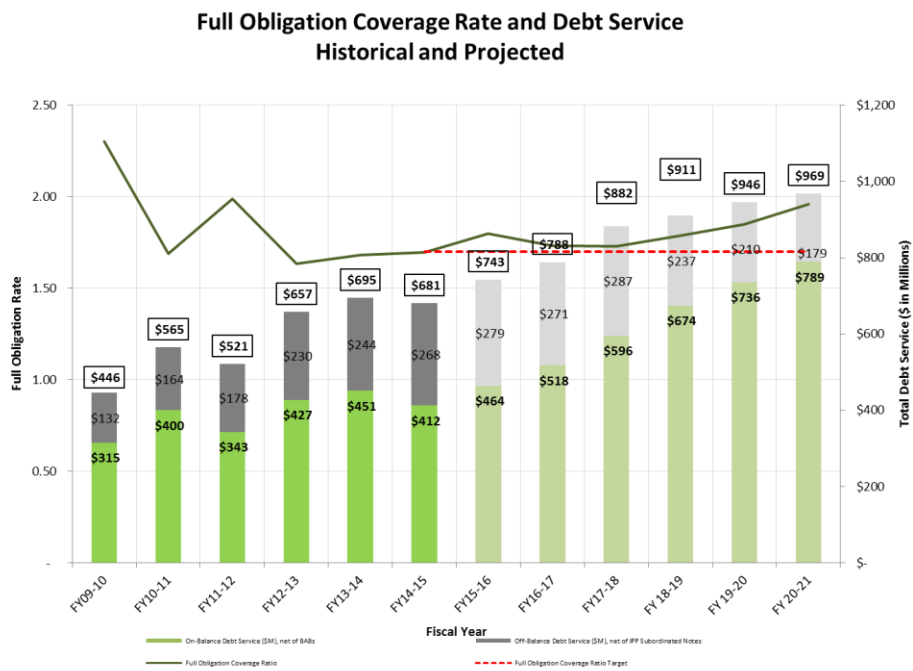
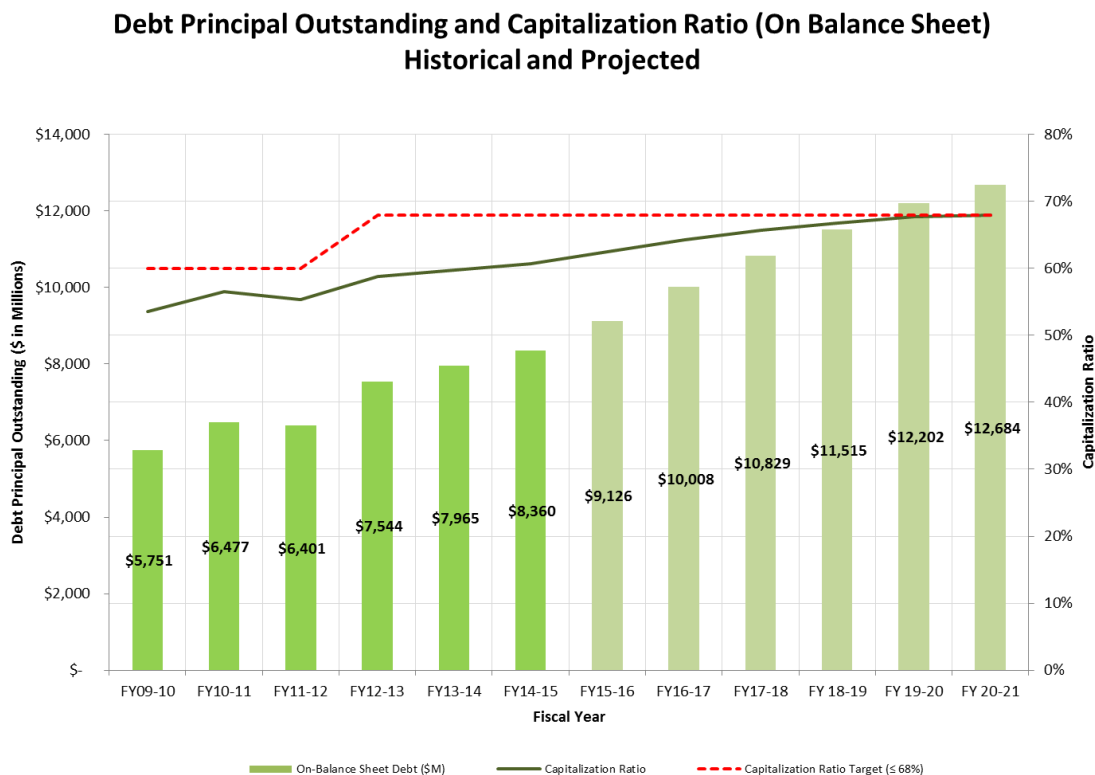


Figure 29: Debt Principal Outstanding and Capitalization Ratio



As actual financial metrics begin to approach the target metrics, more scrutiny will be put on the Department by credit rating agencies. This may indicate the need for additional revenues following the proposed rate action period.

2.7.5.2 Qualitative Factors

In addition to specific financial ratios, the agencies examine a variety of business risk factors or ratings topics that may impact each rated issuer’s ability to make timely payment of principal and interest obligations. Many of these factors are specific to a particular industry. For public power utilities, for example, Moody’s has laid out 9 “Rating Grid Factors” each of which has a number of sub-factors. Five of these rating factors have been identified as “key rating factors”:

1. Cost recovery framework within service territory;
2. Willingness to recover costs with sound financial metrics;
3. Management of generation risks;
4. Rate competitiveness; and
5. Financial strength.

In addition, other qualitative factors may also influence a financial rating. These assessments include, but are not limited to:

- An evaluation of management and governance;
- The utility's generation portfolio;
- Local government credit characteristics;
- Cost competitiveness;
- The rate setting process; and
- The utility's strategic planning process for addressing both traditional power supply as well as emerging issues such as CO2 reduction and renewables requirements.

While some qualitative assessments are outside the control of the Department, the Department has managed its financial and operational plans to address these factors. For example, the Department develops contingency plans to respond to unexpected regulatory changes regarding CO2 emissions and has planned for RPS targets as high as 50%. The Department actively compares its own rates to other California utilities and is committed to maintaining competitive prices. The construction work for repowering the Department's thermal generation has been staged to ensure consistent access to requisite generation supply throughout the turbine replacement timeline. The Department takes seriously its qualitative reputation among credit rating agencies and maintains the best possible standards of service.

2.7.6 Risks of Downgrade

If the relaxed financial metrics and/or inability to increase revenues were to result in a ratings downgrade, there would be an increase in borrowing costs.

For the Power System, maintaining its AA- credit rating and preserving inexpensive borrowing costs are critical for maximizing the cost effectiveness of its capital program. Consequently, the Department determines its revenue requirement with an eye toward meeting the debt service coverage, full obligation coverage rate, capitalization ratio, and operating cash target (days cash on hand) metrics that maintain an AA- rating. Lower bond ratings mean higher interest expenses on all borrowing, which can lead to larger customer rate increases. Just as there is a benefit to having a low cost of capital, there is a cost to a downgrade.

A credit rating downgrade for the Power System would have direct and significant impacts on the Department's costs in the form of higher debt service costs. These costs would come in three primary areas:

- Long-Term Debt: Interest rates for the Power System's new long-term debt will increase. While interest payments on all existing long-term debt remain fixed, any new debt issued subsequent to a downgrade would be subject to a higher interest rate. As shown in Figure 30, PRAG estimates the impact of a downgrade on interest rates at +15 basis points, but the impact could be +60 basis points in adverse bond market conditions.
- Short-Term Debt: The Power System will maintain \$1.2 billion in Variable Rate Demand Revenue Bonds, which are short-term credit facilities that provide the Department access to funds as needed to cover its short-term cash needs and to fund a portion of

the PSRP capital projects. Significant quantities of short-term debt are typically only available to companies with very high credit ratings. Should the Power System credit ratings be downgraded, the majority, if not all, of its low-cost short-term variable-rate debt may have to be refinanced and replaced with higher cost long-term fixed-rate debt for the remaining variable rate debt bonds over the next five years. In addition, any remaining short-term line of credit would carry a higher interest rate with an impact of +25 basis points and as much as +75 basis points in adverse bond market conditions.

- PPA obligations: Many of the Department’s power purchase agreements (PPAs) are not fixed price PPAs but rather are tied to the actual debt service obligation for the project. PPAs that would be impacted by higher interest rates include agreements with IPP as well as any projects funded through SCPPA.

Figure 30: One-Notch Downgrade in Bond Rating from AA- to A+ (S&P)

Scenario	Long-Term Debt	Variable Rate Demand Revenue Bonds
Current Market	+15 bps	+25 bps
Worst Case Market	+60 bps	+75 bps

The Power System has stress tested the impact of a downgrade to A+ (S&P), under current market conditions and found it would result in an average annual 5.53% to 5.69% rate increase over the next five years as compared to the base case, a 5.20% average annual increase – a net additional 0.33% to 0.49% average annual increase as shown in Figure 31. Customer rates would need to be increased another \$57 million to \$86 million during the five-year period to recover these increased costs. Therefore, establishing rates to meet the metrics appropriate for the current bond ratings is the best alternative for the Department and customers, as the financial metrics in the proposed five-year rate plan are consistent with published targets for LADWP’s current Power System bond ratings.

Figure 31: Impact of a Bond Rating Downgrade (Cumulative Increase)

Cumulative Retail Rates Increase		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-Year Average
Case 19 (Base Case) Cumulative System Retail Rate Increase		\$159	\$286	\$523	\$693	\$909	
Cumulative % Increase		4.48%	8.09%	14.90%	19.79%	26.02%	5.20%
Case #	Brief Description						
31	One-Notch Downgrade in Current Market Condition	\$185	\$319	\$560	\$753	\$966	
	% Increase	5.22%	9.03%	15.96%	21.50%	27.65%	5.53%
	Cumulative Difference to	\$26	\$33	\$38	\$60	\$57	

Cumulative Retail Rates Increase		FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	5-Year Average
	Base						
	% Increase due to Downgrade	0.74%	0.94%	1.06%	1.71%	1.63%	
32	One-Notch Downgrade in Worst Market Condition	\$193	\$331	\$578	\$780	\$995	
	% Increase	5.46%	9.37%	16.44%	22.25%	28.47%	5.69%
	Cumulative Difference to Base	\$34	\$45	\$55	\$87	\$86	
	% Increase due to Downgrade	0.98%	1.28%	1.54%	2.46%	2.45%	

The impact of a downgrade to the Department’s bond rating is substantial and can increase rates significantly in the long-term. Therefore, based on this analysis, the Department believes that adjusting Power System rates and maintaining the current bond rating is in the best interest of the Department’s customers.

2.7.7 Delayed or No Rate Action

If there is a delay in the implementation of the proposed rate action, the implication for LADWP and its ratepayers will depend on the length of the delay. For a short delay, the decoupling mechanisms built into the Department’s Incremental Electric Rate Ordinance will allow deferral of the revenue shortfall with some rate recovery in the following year. However, for longer delays, it is likely a progressively higher percentage rate increase would be necessary over time to maintain the level of revenue to finance the programs outlined in this report. The longer the delay, the greater the risk for a larger incremental rate increase and curtailment of discretionary program spend, such as energy efficiency.

If incremental revenue is not available, the Department would be in jeopardy of not meeting its mandatory regulatory and legal obligations without a significant deterioration in financial condition. Meeting financial metrics would require significant cuts to important but somewhat more discretionary programs such as the PSRP and energy efficiency as well as reductions to the Department’s Customer Service functions. These types of cuts would likely have significant impact on the level of system reliability and customer service.

The Department believes the prudent course of action is to adopt the proposed rate increases. Even after the proposed rates are in effect, LADWP’s power service will still be a good value for our customers in relation to peer utilities in Southern California. The Department has developed a five-year rate proposal to provide certainty for customers and to allow LADWP to make long-term contract commitments to obtain the most favorable pricing and terms for construction services and materials.