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# Los Angeles Department of Water & Power: Carbon Neutral Push Could Pressure Financial Metrics

RATINGS

**Los Angeles Department of Water and Power**

| | |
|---|---|
| LADWP Power Revenue Bonds- | Aa3 Stable |

KEY INDICATORS

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| Adjusted Debt Service (x) | 2.48 | 1.77 | 2.19 |
| Debt ratio (%) | 62.6 | 63.7 | 64.6 |
| Days cash on hand | 186 | 182 | 172 |
| Average revenue cents/per Kwh | 12.0 | 12..7 | 12.7 |

*Source: LADWP financial statements*

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## Summary

» The Los Angeles Department of Water and Power (LADWP, Aa3 stable outlook) faces a growing business challenge associated with its drive to reduce greenhouse gas emissions. The goal, transitioning the utility from its reliance on coal-fired generation to a more diverse mix of cleaner energy sources, will be costly, and is expected to result in higher electric rates.

» Today, LADWP's Aa3 rating reflects its strong financial position; self-rate setting and good liquidity. Also reflected is management's leadership in making the transition to a more carbon neutral power supply.

» Significant new leverage is expected. Reducing coal-fired generation and increasing renewable energy and natural gas generation, along with enhancing transmission and distribution reliability, will result in substantial new capital investment over the next five years.

» Execution risk is high. One key aspect of the strategy is the establishment of higher electric rates and maintaining targeted sound financial metrics. But higher rates could pose challenges to the board and City Council's willingness to raise rates.

## LADWP Transition In the Context of State Mandates

The State of California has embarked on a major effort to reinvent its electric power supply to an increased reliance on renewable energy and natural gas. The main driver behind the state's effort is to lower greenhouse gas emissions to protect against climate change.

This broad initiative has 12 different programs with reporting timetables that all electric utilities in the state have to meet. Climate change concerns of California's elected leaders has kept the programs intact despite litigation and threat of higher electricity costs. LADWP, the nation's largest municipal electric utility, has made progress in the execution of its plan to reduce carbon by reducing the use of coal-fired generation and increasing the use of renewable energy and natural gas. Moody's believes there are both strengths and challenges impacting LADWP's execution of this effort.

Implementation has begun on the California Global Warming Solutions Act of 2006 which was established to create a statewide cap on greenhouse gas emissions (GHG) at 1990 levels by 2020. The program is administered by California Air Resources Board (CARB) and is proposed to help put California on the path to meet its goal of reducing GHG emissions ultimately achieving an 80% reduction from 1990 levels by 2050.

The first step was the November 2012 auction of carbon credits through the state's carbon cap and trade program. We think LADWP's unique role as a utility governed under a city charter and being its own control area provides additional local control over the cap and trade implementation. However, the state's objective of lowering carbon is also a high priority of Los Angles elected leadership who have implemented steps to comply with the state statute.

An overall limit on GHG emissions from capped sectors of the economy was established and those subjected to the carbon cap will be able to trade permits (allowances) to emit GHG emissions. The November 2012 auction for 2013 and 2015 allowances went well with limited issues and resulted in tradable credit with a final average price of $10.09/per ton of emissions for 2013 allowances.

FIGURE 1

**California Cap and Trade Auction of 2013 Vintage Allowances**

| | |
|---|---|
| Total 2013 Allowances Available for Sale: | 23,126,110 |
| Allowances Purchased by Compliance Entities: | 97.0% |

Bid Price Summary Statistics

| | |
|---|---|
| Maximum Price: | $91.13 |
| Minimum Price: | $10.00 |
| Mean Price: | $13.75 |
| Median Price: | $12.96 |

| | |
|---|---|
| Total 2013 Allowances Sold at Auction: | 23,126,110 |
| Auction Reserve Price: | $10.00 |
| Settlement Price Per Allowance: | $10.09 |

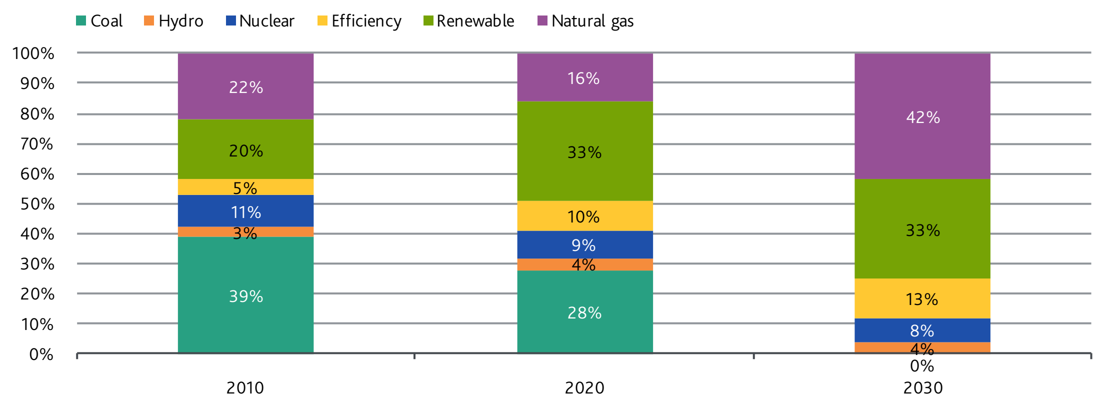
*Source: California Air Resources Board*

LADWP was eligible as a participant in the auction but received its necessary emissions allowances from CARB through the direct allocation of such credits without the need to surrender them to the auction. Further as it is not a Cal ISO participant, therefore some uncertainty is mitigated for LADWP. The longer term potential cap and trade cost to LADWP could be significant but will depend on the allowances LADWP needs, the auction prices of such allowances and how much LADWP lowers its carbon tonnage over the next several years. The new state cap and trade program is also subject to complex rules which are open to interpretation and could lead to unintended consequences. While the $10/per ton emissions price and substantial allowances now limit major exposure to municipal utilities statewide, the program has a $50/ton cap so as allowances lessen cost exposure will rise.

The transition out of carbon intense fuels is taking place with more exposure for the state's municipal electric utilities because they are heavily reliant on coal-fired generation. LADWP derived 39% of its energy from coal-fired generation in 2010. See Figure 2.

FIGURE 2

**LADWP Historical and Projected Energy Supply Will Transition to a Cleaner Fuel Mix**




*Source: % Energy; Los Angeles Department of Water and Power, 2012*

## Sale of Existing Coal Fired Generation To Lower Carbon Footprint Has Significant Execution Risk

LADWP's exposure to the cap and trade program later in the decade is expected to be reduced through several approaches including reducing coal generation as part of the LADWP resource mix. LADWP's sale of its coal-fired generation assets has significant risks related to retail prices and potential pressure on financial metrics.

LADWP has a 21.2% ownership interest (477 MWs) in the Navajo Station. The three-unit coal-fired generating station has a combined capacity of 2,250 MW and is located in Page, Arizona. The existing co-tenancy agreement related to the lease of the facilities terminates in 2019. LADWP has plans to divest itself of its interests in the Navajo Station, as an extension of the agreements would violate the provisions of SB 1368. This California legislation prohibits utilities from making any long term commitments in connection with "baseload generation" that does not satisfy the emissions performance standards defined as " a level of GHG emissions equal to those of a combined cycle natural gas plant on a MWh basis (1,100 lbs $CO_2$/MWh)." Navajo would not meet such a standard.

Should LADWP have to share in any capital improvements that require bond financing, whether or not SB 1368 provisions apply remains uncertain. LADWP has engaged a firm to search for buyers of the LADWP share of the plant ownership and to find replacement resources.

LADWP also has entitlement to 44.617% of the two-unit 1800 MW coal-fired Intermountain Power Project (IPP) and has 13.0234% entitlement in excess capacity of the plant. The contracts expire 2027. Credit risk also exists related to SB1368 particularly if there are any major capital investments required at IPP requiring amortization of debt beyond 2027. LADWP and IPP co-owners are looking at various alternatives for IPP including potential repowering to natural gas. No decisions have been made. However, the Southern California Public Power Authority(SCPPA) and LADWP have moved ahead and located significant new wind generation projects (Milford I, II and South West Wyoming) near the IPP utilizing some of the capacity of the Southern Transmission Line.

A historic strength of the LADWP power resource portfolio has been its diversity and competitive cost structure that made LADWP a competitive and reliable utility serving customers. Excess capacity, resource diversity which provided a natural hedge in the region's energy markets; and ownership of its own transmission network historically have been cited as credit strengths. Sale of the coal-fired generation units raises questions whether LADWP will be able to maintain its reliability and competitiveness.

For example, will the replacement of coal fired generation for a diverse mix of renewable energy projects, by geographic location and type, offer the same reliability benefit as a diverse resource mix that had strong base load coal units operating at high capacity factors?

LADWP has been addressing the reliability factor by a major program to strengthen its transmission and distribution system including managing intermittent issues; repowering its natural gas fired fleet; and shifting to a diverse mix of renewable projects. In repowering its coastal natural gas plants, significant costs are involved, but these new assets offer more responsiveness to enable better integration of renewable energy resources, as well as, reduced fuel and emissions.

## Renewable Energy Expansion Progressing But Questions Posed

One of LADWP's major initiatives to reduce carbon is through its development of renewable energy projects and obtaining higher efficiency in energy utilization. Senate Bill 1x-2 adopted in 2011 established a rigorous timetable for utilities in the state to achieve the renewable energy standard (RPS).

### CALIFORNIA RPS

20% of retail load on average be served by renewable energy for the period January 1, 2011 through December 31, 2013.

25% average retail load served be renewable by December 31, 2016

*33% average retail load served by renewable energy by December 31, 2020.

*Source: Senate Bill 1x2*

In 2012, LADWP plans to achieve the 20% RPS with a combination of LADWP directly owned resources, purchase power contracts and by lowering demand by efficiency measures. About 52% of the LADWP renewable energy mix in 2010 was wind; small hydro; 29%; biogas , 18% and solar is 1%.

LADWP currently proposes spending $1.3 billion in direct renewable energy supply expenditures and also through SCPPA financings from 2013-2014.

While there are numerous positive attributes of LADWP development of its renewable energy portfolio, there are several potential risks that may surface. For example, the shift primarily to power purchase contracts for renewable energy projects versus owned generation is a change in LADWP's approach to the generation business. The shorter term nature of several of the renewable energy contracts and lack of operational control may also present challenges. LADWP has negotiated purchase options in most of the contracts, but executing the options will require additional debt.

The most significant question will be whether the future price of the renewable energy projects are above that of the current incumbent generation and whether ratepayers will tolerate new rate increase to absorb those costs.

## Targeted Financial Metrics Are A Major Positive but Rates Will Require Continued Attention

A positive consideration is that the LADWP Board in 2012 approved a combined rate increase of 11.3% over 2013 and 2014 to fund investment in the transition to a cleaner power supply mix. And as part of the rate ordinance, financial metric targets were established to be maintained to provide for a sound financial position. See Figure 3.

Moody's believes the combination of the new rates, a significant cost reduction program and financial metric targets were examples of management leadership to position the utility for the transition it is facing. Uncertainty remains in the longer term how LADWP will be able to manage to achieve the 33% renewable objective by 2020 and ultimately shutter its coal generation and invest in aging distribution infrastructure while keeping retail prices acceptable and competitive.

FIGURE 3

**LADWP Targeted Financial Metrics**

| Board approved Metrics | Target | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Debt service coverage ratio | 2.25 x | 2.64x | 2.53 | 2.39 |
| Capitalization ratio | 68% | 55.7% | 58.8% | 61.8% |
| Operating Cash ($million) | 300 | 264 | 309 | 300 |
| Full Obligation Charge Coverage | 1.50x | 1.77x | 1.61x | 1.56 |

*Source: LADWP 2013-2014 Rate Proposal prepared by Office Public Accountability*

## Appendix A

**LADWP Financial Results(fiscal year ended 6/30)**

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012(1) |
|---|---|---|---|---|---|---|
| Operating Revenue ($'000) | $2,600,055 | $2,781,324 | $2,755,933 | $3,235,193 | $3,125,957 | $3,081,680 |
| Gross Revenues and Income ('000) | 2,768,648 | 2,957,230 | 2,893,192 | 3,372,648 | 3,276,672 | 3,2408,761 |
| Total Operating Expenses ('000) | 1,996,649 | 2,176,056 | 2,043,192 | 2,287,434 | 2,308,188 | 2,235,5220 |
| Net Revenues ('000) | 752,262 | 763,578 | 856,291 | 858,718 | 968,484 | 999.970 |
| Aggregate Annual Debt Service ('000) | 267,151 | 250,484 | 270,357 | 309,349 | 400,846 | 343,093 |
| General Fund Transfer | 174,747 | 182,004 | 222,506 | 220,475 | 258,815 | 250,007 |
| **Key Financial Ratios** | | | | | | |
| Total Debt Service Coverage (x) | 2.82 | 3.12 | 3.14 | 3.20 | 2.42 | 2.91 |
| Net Debt Service Coverage (after transfers) (x) | 2.24 | 2.35 | 2.32 | 2.48 | 1.77 | 2.19 |
| Fixed Charge Coverage (x) | 1.79 | 1.71 | 1.76 | 1.74 | 1.58 | 1.79 |
| Assets to Debt (x) | 2.45 | 2.18 | 2.01 | 2.04 | 1.92 | 1.96 |
| Debt Ratio (%) | 61.77 | 60.99 | 62.38 | 62.58 | 63.70 | 64.6 |
| Adjusted Days Cash on Hand | 197 | 177 | 194 | 186 | 182 | 172 |
| PILOTs/Transfers to Gen. Govt as % of Operating Revenue (%) | 6.72 | 6.54 | 8.07 | 6.81 | 8.21 | 8.11 |
| Average Revenue cents/kwh | 9.8 | 10.2 | 11.2 | 12.0 | 12.7 | 12.7 |

(1) Unaudited

## Appendix B

### Public Power Rating Methodology Factors-Los Angeles Department of Water and Power

1 Cost Recovery Framework: (25% weight) (Aa)

2. Willingness to Recover Costs and Maintain Sound Financial Metrics (25% weight) (Aa)

3. Management of Generation Risk- (10% weight) (Aa)

4. Rate Competitiveness: (10% weight) (Aa)

5. Financial Strength:

Sub factor a) Adjusted Days Liquidity on Hand: (10% weight) (Aa)

Sub factor b) Debt Ratio: (10% weight)) (A)

Sub factor c) Adjusted Debt Service Coverage: (10% weight) (A)

Indicative rating: Aa3

## Moody's Related Research

Global Risk Perspectives:

» Update to Our Global Macro-Risk Scenarios 2012-2013: Modest Growth and Resurfacing Oil Price Risks, April 2012 (141580)

Industry Outlook:

» US Public Power Industry Outlook, June 2012 (141124)

Special Comments:

» Slow Economic Recovery Tests Willingness to Manage Rates and Costs, October 2012 (146421)

» Household Electric Utility Affordability – Impact of Recession and Outlook, October 2012 (146562)

» Recent Local Government Defaults and Bankruptcies May Indicate A Shift in Willingness to Pay Debt, July 2012 (144002)

» Methodology Update: Ratings Impact of Debt Service Reserve Funds That Rely on Financial Guarantor Surety Bonds, September 2009 (119665)

» Importance of Balancing Infrastructure Bondholder Protection During Downturns, June 2010 (125530)

» Milking the Cash Cow: US Toll Roads Are Reliable Source of Cash for Struggling State and Local Governments but Rate Affordability Exerts Credit Pressure, February 2012 (138832)

Rating Methodologies:

» US Public Power Electric Utilities with Generator Ownership Exposure, December 2011 (135299)

» US Municipal Joint Action Agencies, October 2012 (145899)

» US Electric Generation & Transmission Cooperatives, December 2009 (121189)

» Waste and Energy Methodology, April 2012 (137304)

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