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Sacramento, CA 95814-5512

To Whom it May Concern:

Subject: Docket Number 09-IEP-1A

Enclosed are comments submitted in response to the Committee Draft Report on the 2009 Integrated Energy Policy Report, released in October 2009. These comments were also submitted electronically at docket@energy.state.ca.us on October 28, 2009.

If you have any questions regarding the enclosed comments, please contact Mr. Oscar Alvarez at (213) 367-0677 or Mr. Oscar Herrera at (213) 367-4880, of my staff.

Sincerely,

Randy S. Howard
Power Engineering Manager

OH:ms
c/enc: Mr. Oscar Alvarez
Mr. Oscar Herrera

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
2009 Integrated Energy Policy Report	)	Docket No. 09-IEP-1A
Draft Committee Report	)	
	)	

Comments of the
Los Angeles Department of Water and Power
On the Draft 2009 Integrated Energy Policy Report

The Los Angeles Department of Water and Power (LADWP) respectfully submits its comments on the Draft 2009 Integrated Energy Policy Report (IEPR). LADWP fully appreciates the work performed by the Energy Commission staff on this extensive report and values the opportunity to comment.

LADWP provides these comments on the IEPR from the perspective of a vertically integrated utility. LADWP is the largest municipally-owned utility in the nation serving approximately 4 million people, and its service territory includes the City of Los Angeles and many areas of the Owens Valley.

Energy Efficiency and Demand Response

LADWP's policy, consistent with that of the state's loading order, is to first meet its electricity needs thorough energy efficiency. Consistent with that policy, LADWP supports an aggressive energy efficiency program and believes that much more effort should be placed on implementing these activities. Many of the measures should become building and construction standards within the state, and the point of sale or transfer is the appropriate time to require the upgrades.

Nevertheless, LADWP recommends a cautious implementation schedule that considers the economic climate and real estate market before requiring costly upgrades.

Furthermore, the implementation of smart meter and smart grid initiatives will provide the tools to reduce demand and motivate greater off-peak energy usage. While dynamic pricing is a logical step in the "Smart Grid" process, LADWP requests the Commission use caution in the adoption and implementation of dynamic pricing. LADWP and many other utilities in the state are aggressively working to develop smart grids and install smart meters, but the backbone legacy billing systems still require several years and large capital expenditures to replace.

Greenhouse Gas (GHG) and Renewable Resources

As the IEPR states, the "primary policy driver for energy in both the short and long-term is the state's goal of reducing GHG emissions" (page 213). The report also considers the California's Renewable Portfolio Standard as an essential strategy to help the state reduce GHG emissions from the electricity sector, and estimates that the 33 percent RPS target is expected to provide sufficient GHG reductions to meet the AB 32 goal of achieving 1990 emission levels by 2020 (page 73).

LADWP fully embraces the State's approach regarding renewable energy resources and greenhouse gas reduction. In fact, based on Mayor Antonio Villaraigosa's announcement on July 1, 2009, LADWP has set as goals to divest entirely from coal-powered generation and increase its renewable energy portfolio to 40 percent by 2020. By pursuing these goals, and in combination with energy efficiency measures, LADWP is expected to reduce its GHG emissions by over 60 percent below the 1990 levels.

Once-Through-Cooling (OTC) Implementation

The IEPR clearly explains two main challenges being faced by the state and utilities with respect to OTC mitigation: (i) "It will be necessary for the state to make significant planning decisions, procurement authorization, and permitting of specific energy infrastructure projects to accomplish the retrofitting, repowering, or retirement of more than 30 percent of the power generating capacity represented by OTC plants" (page 171), and (ii) "If new gas-fired power plants cannot be relicensed in the Los Angeles Basin because air emissions from the SCAQMD Priority Reserve are unavailable and other rules favorable to power plant development are disallowed, system reliability will require continued and ongoing operation of aging, less efficient, higher emission power plants to maintain planning reserve margins between 15 and 17 percent" (page 174).

LADWP owns three coastal generating stations which utilize OTC, generating a total of 2672 MWs. These units are crucial to the current and future power needs of the City of Los Angeles. The LADWP is pursuing OTC solutions but it is constrained by extensive limitations, which include: (i) lack of sufficient land to accommodate the use of Closed-Cycle Cooling towers, (ii) current limitations on the air credits needed for new generation developments to be used to replace any loss of power, temporary or permanent, (iii) due to existing remaining life and current capacity utilization, a generating unit may not be able to economically bear the cost of a retrofit, (iv) economic downturn is creating severe financial hardship on ratepayers in our territory (above 12 percent unemployment and one of the highest foreclosure levels in the Country) obviously limiting the ability to raise rates to pay for these significant capital projects, and (v) potential inability to acquire the necessary permits due to factors beyond the control of the applicant, such as safety due to proximity to airports, human health, property damage due to salt draft, environmental justice, etc. which may constitute retrofits as being infeasible.

Based on these extreme limitations and in response to the draft *"Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Water for Power Plant Cooling"* (draft Policy) dated June 30, 2009, LADWP filed comments with the Water Resource Control Board. The LADWP comments proposed to modify the schedule in the draft Policy addressing the three LADWP's coastal plants that use OTC: Harbor, Haynes, and Scattergood. The LADWP comments explained, amongst other things, that:

- Since LADWP generally relies on its own power to serve its native load and maintain reliability of its grid, two of these plants cannot have the same compliance date. For example, if sufficient power is not available from Haynes, replacement power would need to come from Harbor's combined cycle units, including the Unit 5 steam turbine which relies on OTC.

- For those facilities that have undergone or will undergo unit repowering in the near future (e.g., Haynes Units 5 and 6, Scattergood 1 and 2), LADWP will seek to use the variance provision in the draft Policy and retrofit its cooling water intake structure for the remaining OTC units with the best available impingement and entrainment control technology. Additional time will be needed to run pilot tests to determine the best available control technology and its performance.

- Depending on the availability of Emission Reduction Credits and the results of the pilot studies, LADWP has determined that Haynes will need at least until 2019 to implement these measures. Scattergood can commence the repowering of Units 1 and 2 upon completing the Haynes Unit repowerings. LADWP has determined that Scattergood will need at least until 2022 to implement these measures.

- Harbor may be able to meet a deadline of 2015.

Integrating Renewables

The IEPR describes the challenges of integrating large amounts of renewable energy into an electric system (page 179). Solutions for integrating renewables into the system include the continued use of natural gas plants to provide "flexibility the system needs for peaking, cycling, and base load operation" (page 82). The report also describes other strategies, such as utility scale and distributed energy storage (e.g., pumped hydroelectric storage and megawatt (MW) battery storage systems), and better forecasting of expected generation from intermittent resources (page 83).

LADWP is developing operations and economic modeling for the use of the Castaic pumped-storage plant to reduce the potential impacts of renewable energy variability on the LADWP power system. The operational issues appear less challenging than the economic issues. Furthermore, modulating the DC power transfers from the existing transmission also holds promise in dealing with the intermittency of renewable energy. Nevertheless, the use of existing natural-gas fired generation is expected to play a critical role in maintaining grid reliability during the transition period towards the goals of divesting entirely from coal-powered generation and increasing LADWP's renewable energy portfolio to 40 percent by 2020.

Furthermore, LADWP is planning to install approximately 1280 MWs, or 10 percent of the energy requirements using solar energy by 2020. To deal with the potential variability of implementing extensive solar energy resources, LADWP is encouraging the development of hundreds or thousands of distributed locations, as this is expected to provide the geographical diversity to minimize rapid-ramping impacts from "cloud cover". Generally in Los Angeles, "cloud cover" tends to impact solar energy production on days when electrical demand is lower, and thus system operations can be modified to accommodate less solar

energy production. Solar thermal electric technologies are expected to also reduce the impact of clouds, and provide additional storage options.

Transmission Planning

The IEPR describes the immediate actions that California needs to implement in order to plan, construct and maintain a reliable transmission system. Also, the 2009 Draft Strategic Transmission Investment Plan presents a proposal for a consolidated statewide transmission plan, with two planning timeframes, a short-term 10 year planning horizon and a second timeframe that looks at the 10-to-30 year horizon. In short-term, POU balancing authorities would submit planned projects of statewide significance to the California Transmission Planning Group (CTPG), and the CTPG would then work together to develop a single statewide transmission plan with the IOUs and the Publicly Owned Utility (POU) balancing authorities, acting in a fully coordinated manner. This single CTPG plan would then be submitted for evaluation to the Energy Commission's Strategic Transmission Investment Plan proceedings.

LADWP agrees that the above process will allow for a more unified and coordinated planning process, fully considering the input from all interested stakeholders. In fact, LADWP is part of the CTPG, and expects to be actively involved in this process. Furthermore, LADWP hopes that any joint transmission project agreements resulting from this planning process will: (i) clearly result in cost certainty for all participants, (ii) allow for cost and liability to be shared by participants in proportion to their ownership percentages, and consistent with agreements between joint transmission participants, and (iii) recognize the operational protocols of all joint transmission participants.

Feed-in Tariff

The IEPR explains that some recent studies suggest that well designed feed-in tariffs (fixed, long-term prices of renewable energy) "can help with the

development of renewable resources at lower costs than other policies" (page 87).

LADWP agrees with the report that a feed-in tariff can be used as a strategy to develop renewable energy systems that would interconnect with the utility's distribution grid. LADWP tends to limit the size of solar energy systems interconnected at the LADWP's distribution levels to 3-5 MW. Larger solar projects in the range of 5MW or more are generally expected to be connected at the transmission and sub-transmission levels, and these larger projects are generally more adequately addressed by using specific Power Purchase Agreements with the utility, rather than feed-in tariffs.

Further, as the report correctly states, LADWP is developing a feed-in tariff for solar within the City of Los Angeles. The utility recently completed six community workshops around the various regions of Los Angeles seeking input on five principle elements of a comprehensive solar plan. One of the elements was a feed-in tariff, and LADWP staff is reviewing the community comments. It is expected that a rate ordinance will be established in January 2010, and the program will be launched in March of 2010. .

LADWP is currently reviewing the recently passed Senate Bill 32 to determine the LADWP's proportionate state-wide capacity share, and additional requirements for publicly-owned utilities.

Combined Heat and Power (CHP)

According to the IEPR, "the ARB adopted its Climate Change Scoping Plan with a target of 4,000 MWs of CHP to displace 30,000 GWhs of demand and reduce greenhouse gas emissions by 6.7 million metric tons of CO_2 by 2020" (page 93). The report recognizes that a new generation of highly efficient CHP facilities must be encouraged and supported, and discusses AB1613 as the vehicle for the Energy Commission to adopt guidelines by January 1, 2010. These

guidelines are expected to establish technical eligibility criteria of CHP systems for programs to be developed by the CPUC and publicly-owned utilities. The IEPR references LADWP as a utility which "has a significant amount of remaining potential given the small size of its service area" (page 93).

LADWP currently has around 265 MWs of existing thermal cogeneration. Some of these projects utilize combined Heat and Power, including the Scattergood-Hyperion 25 MW Project, which uses a combined cycle plant with digester gas as fuel, and the Terminal Island 4MW Project, which uses methane gas as fuel derived from bio-solids and excess heat in digesters.

To encourage Cogeneration or Combined Heat and Power customers, LADWP has the "Standard Energy Credit" incentive program, which credits customers with a dollar amount per unit of energy for excess energy that is sold to LADWP. This credit is based on LADWP's estimated marginal generation cost, and is posted and available to the public at the beginning of each month.

LADWP continues working with stakeholders to further expand implementation of the CHP systems, by seeking to address reliability issues with smaller systems, utility replacement reserve requirements, and siting restrictions by AQMD for new carbon-based generation.

Respectfully Submitted,

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