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June 5, 2012

DOCKET**12-IEP-1D**

DATE JUN 05 2012

RECD. JUN 05 2012

California Energy Commission
Docket Office, MS-4
RE: Docket No. 12-IEP-1D
1516 Ninth Street
Sacramento, CA, 95814-5512

To Whom It May Concern:

Subject: California Energy Commission (CEC), Docket No. 12-IEP-1D:
Comments from the Los Angeles Department of Water and Power
(LADWP) to the Lead Commissioner Workshop on Renewable Energy
Costs

On May 22, 2012, the CEC held a Workshop to discuss the cost of renewable energy projects beyond technology costs – including costs associated with integration, permitting, and interconnection – and their impact on retail electricity rates.

The City of Los Angeles is a municipal corporation and charter city organized under the provisions of the California Constitution. LADWP is a proprietary department of the City of Los Angeles that supplies both water and power to Los Angeles' residents pursuant to the Los Angeles City Charter. LADWP is a vertically integrated utility that owns generation, transmission and distribution facilities.

The City of Los Angeles has supported renewable energy development to serve our long-term resource goals. As LADWP looks into the future, most of the issues influencing strategic and resource planning are based on the critical issues that LADWP is facing in the areas to address greenhouse gas emissions, Once-Through Cooling, and the integration of increased amounts of renewable resources.

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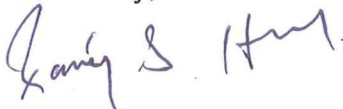


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LADWP appreciates the opportunity to participate in the Panel II discussions of this workshop. Based on the above strategies, enclosed please find LADWP's responses to the questions posed by the Commission on Panel II and Panel II of the subject workshop.

If additional information is necessary concerning this matter, please contact Mr. Oscar Alvarez at (213) 367-0677, or Mr. Oscar Herrera at (213) 367-4880.

Sincerely,

A handwritten signature in blue ink, appearing to read "Randy S. Howard".

RANDY S. HOWARD
Director of Power System Planning and Development

OH:nsh

Enclosures

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

CALIFORNIA ENERGY COMMISSION

Lead Commissioner Workshop on Renewable Energy Costs

Purpose: The purpose of this workshop is to seek input from experts, stakeholders, and the general public on: renewable costs, how those costs are incorporated into procurement decisions and electricity rates, and policy solutions for minimizing costs

Below are the Los Angeles Department of Water and Power's (LADWP) responses to the questions posed by the Commission on Panel II and III:

Panel 2: Cost Consideration in Procurement and Policies to Reduce Costs

Moderator: **David Vidaver**, Energy Commission staff

Panelists:

1. **David Lewis**, Director for Structured Transactions, PG&E
2. **William Walsh**, Manager of Renewable Procurement, SCE
3. **Jim Tracy**, Chief Financial Officer, SMUD
4. **Randy Howard**, Dir. Of Power System Planning and Development, LADWP
5. **Jason Simon**, RPS Staff, CPUC
6. **Brendan Pierpont**, Analyst, Climate Policy Initiative

Q#	Questions to Consider
1	<i>Have the offer prices for renewable energy/projects come down during the past five years? If so, is this more or less the case for different technologies?</i>
1a	<p>The price for geothermal and biomass projects has not come down much. Note that the offer price will increase significantly when the government grants or tax incentives expire without extension.</p> <p>Solar prices have dropped significantly over the past 5 years. In some cases by as much as 40%. Other technologies have not seen this decline. Wind may have actually seen an increase from 5 years ago.</p> <p>LADWP's first two biogas deal in August and September 2009 were for \$9.80/MMBtu. The Southern California Public Power Authority (SCPPA) 2010-2011 Request For Proposal (RFP) deals ranged from \$10.90/MMBtu to as high as \$12.50/MMBtu. The SCPPA RFP prices evolved somewhat and the high drifted lower to \$12.15/MMBtu. LADWP pursued the Shell 10,000/MMBtu per day deal at the end of 2011 for \$10.85. The criterion for LADWP's deal was the comparison to the going rate for all renewables. LADWP's biogas was evaluated at about \$76/MWh. Other renewables ranged between \$75 and \$165, but biogas was dispatchable and therefore more reliable than wind, solar and geothermal.</p>

2	<i>Do offer prices currently reflect a competitive market? How do utilities decide what constitutes a reasonable price for the contract/set of products being offered?</i>
2a	<p>Generally yes. LADWP evaluates the offer prices in a very comprehensive manner. LADWP compares offer prices to the market price for similar technologies, taking into consideration other factors such as if the projects can help LADWP achieves system reliability, minimizes ratepayers' impact, and complies with the RPS regulation requirements.</p> <p>For biogas, the offered prices reflected a range which indicates a market pricing for a premium product. Offers are trying to get as high a price as possible since their products are special in that they are seen to offer an RPS component. The prices do not seem to be affected by the spot market for regular natural gas. However, we deem the electricity product (or Renewable Energy Credit, or REC) to be worth around the mid to low \$5.00 range. In addition (in LADWP's case), the generation cost must compare favorably with other available renewable energy resources: wind, solar and geothermal.</p>
3	<p><i>What Costs are considered in utility procurement?</i></p> <p><i>a. How are the quantities and costs/value of dependable capacity, curtailment, (avoided) ancillary services, etc. determined?</i></p> <p><i>b. How are resources that provide different products/services (e.g., solar thermal vs. solar PV) compared?</i></p> <p><i>c. How are resources that provide very different products/services compared (e.g., wind vs. solar. vs. biomass compared?</i></p>
3a	<p>The overall value a resource brings to LADWP is used to consider the viability of a resource. Such values include dependable capacity, basic generation by different technology, escalation over the life of contract, time of delivery, transmission losses and costs, integration costs, ancillary services, curtailment, firming and shaping, integration, capacity devaluation, cost impact due to energy availability for meeting RPS compliance requirements, etc. are all determined by using actual costs when available. Also industry reports and market data are helpful in this analysis. LADWP has a team of resource development experts who come to consensus on evaluation of these resources.</p> <p>For natural gas, the price is "spot market" since the gas is hedged financially. If fixed price deals are sought, for hedging purposes, an RFP type process is used to rank the offers on price, low to high.</p>

4	<p><i>To what extent does portfolio fit influence the evaluation of renewable projects?</i></p> <p><i>a. If projects/offers are assessed as components of a utility's (future) portfolio, how is the portfolio selected?</i></p> <p><i>b. How have portfolio fit considerations influenced, if at all, the types of renewable resources that utilities have targeted by utilities or chosen for contracts?</i></p>
4a	Portfolio fit is determined by reviewing geographic diversity, resource diversity, transmission availability, costs and congestion, transmission losses, energy time of delivery and fit with existing resources.
5	<p><i>To what extent is dispatchable, baseload, renewable generation participating in RFOs?</i></p> <p><i>a. How do costs associated with these resources generally compare with those of intermittent resources?</i></p> <p><i>b. Do existing valuation methodologies properly assess dispatchable, baseload renewable generation in a high intermittent generation setting?</i></p>
5a	<p>Here, were talking mostly about geothermal, biomass, and small hydro. Participation in RFOs is roughly proportional to new development; consequently, the respective "market depths" of these dispatchable technologies are dwarfed by those of wind and solar.</p> <p>In general, the development costs for dispatchable resources tend to be higher than those of variable renewable resources. The market prices for energy from all of these resources, however, are more tightly bunched together, because the Load-Serving Entities (at least, in California) are more economically motivated by Portfolio Content Categorization differentiation than by the particular technology of a renewable resource.</p> <p>In our opinion, at least they do more so in asset purchases than in power purchases. But even then, existing valuation methodologies are still evolving, so we wouldn't yet say with confidence that they either adequately or consistently account for the "true" costs of variable energy resource integration.</p>
6	<p><i>What work has been done to date by the CPUC on cost containment regulations?</i></p> <p><i>a. What cost-containment mechanisms for the RPS should be considered?</i></p>
6a	We are not regulated by the California Public Utilities Commission (CPUC). The only cost containment mechanisms we have are to have a competitive process to obtain the lowest cost renewables for our ratepayers. We have no other recourse.

7	<i>What analysis or analytic capabilities/tools could be developed for use in planning by utilities, the California ISO, or policy-makers that would allow more accurate assessment/control of the costs of reaching 33%?</i>
7a	Integration of intermittent renewables will be a significant challenge for utilities. Some tools that could help would include better micro-weather forecasting and the ability to dispatch renewables as needed. More data from renewable energy plants will be useful in modeling and operating utility systems. More sophisticated system operation modeling software will also be helpful.

Panel 3: Cost Consideration in Rate Design and Policies to Improve Rate Design

Moderator: **Karen Griffin**, Energy Commission staff

Panelists:

1. **Scott Murtishaw**, Adviser to President Peevey, CPUC
2. **Chloe Lukins**, DRA
3. **Stephanie Chen**, Sr. Legal Counsel, Greenlining
4. **Jim Tracy**, Chief Financial Officer, SMUD
5. **Tom Brill**, Director of Strategic Analysis, SDG&E
6. **Amrit Singh**, Sr. Director for Analysis and Rates, PG&E
7. **Russell Garwacki**, Pricing Design & Research, SCE
8. **Severin Borenstein**, Director, UC Energy Institute

Q#	Questions to Consider
1	<i>How are all of these costs factored into rates? [discuss timing, rate design]</i>
1a	All RPS costs are recovered through rates approved by the Board of Water and Power Commissioners and the Los Angeles City Council. All RPS costs are collected under the Energy Cost Adjustment Factor (ECAAF) that includes a pass-thru adjustment that can vary up to a set quarterly cap amount.
2	<i>What are the potential rate impacts from costs?</i> <i>a. What is the expected timing of rate impacts?</i> <i>b. How can rate design assist with cost impacts?</i>
2a	<p>A current RPS cost at 20% RPS represents approximately 1.3 cents/KWH of the average rate collected from our customers. The incremental retail rate impact of increasing our RPS from 20% to 33% RPS by 2020 will require an additional 2.7 Cents/KWh assuming an average customer rate of 12.69 Cents/KWh. This amount is the net rate impact after discounting the associated fuel savings.</p> <p>The timing of the rate impact to our customers will be determined by the Board of Water and Power Commissioners and the Los Angeles City Council.</p> <p>Any changes to the CPUC rate design will have no direct impact on Publicly Owned Utilities (POUs). CPUC rate design may have an indirect impact on the prices paid for renewable energy based on how it influences energy consumption in general.</p>
3	<i>How have, and how can, cost containment mechanisms mitigate rate impacts?</i>
3a	The certification and determination of eligible renewable resources has a significant influence on mitigating costs to utilities. More flexible eligibility, category definitions, and certification requirements would have a positive impact on mitigating rate impacts.

4	<i>To what extent are certain costs not factored into the decision process? (e.g. concerns about net metering and integration... others)</i>
4a	Avoided costs of generation, integration costs, energy and capacity value, O&M, and Capital are considered in the RPS selection process but are difficult to quantify.
5	<i>What other factors, decisions, programs, such as system upgrades and OTC regulations, are influencing rates?</i>
5a	Coal divestiture (SB 1368), OTC repowering, energy efficiency, and necessary Distribution and Transmission system upgrades will impact rates by an estimated 4.73 Cents/kWh by 2020.
6	<i>Are the full costs of procurement choices accurately reflected in rates?</i>
6a	Yes
7	<i>How are ratepayers included in decisions about rate impacts? Process for communicating rate impacts to customers?</i>
7a	Every other year, LADWP includes an extensive Public Outreach effort as part of the Integrated Resource Planning to communicate the rate impacts to customers from various programs. Also, the current Power Rate Proposal for 12/13 and 13/14 FY is being actively communicated to our rate payers and stakeholders through a series of workshops currently being held throughout Los Angeles over the next several months.