

Docket:	:	<u>R1203014</u>
Exhibit Number	:	_____
Commissioner	:	<u>Michel Florio</u>
Admin. Law Judge	:	<u>David Gamson</u>
Witnesses	:	<u>Barbara George</u>
	:	

Order Instituting Rulemaking to Integrate
and Refine Procurement Policies and
Consider Long-Term Procurement Plans.

Rulemaking 12-03-014
(Filed March 22, 2012)

**WOMEN'S ENERGY MATTERS
OPENING TESTIMONY – LCRs
ERRATA
(PORTIONS STRICKEN)**

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TABLE OF CONTENTS

[PAGES 1 THROUGH 8 WERE STRICKEN PER 7-17-12 ALJ RULING PURSUANT TO 7-6-12 MOTION BY SCE.....	3	☐ð
Energy Efficiency alternatives should be allowed to compete on a level playing field	9	☐ð
Updated EE Avoided Costs expected to increase focus on peak load reductions	10	☐ð
CA could reduce rates with capacity markets that include demand side resources	11	☐ð
Current EE programs are doing little to reduce residential air-conditioning load	12	☐ð
Recommendations for aggressive EE targeted to replace San Onofre nuclear power.....	12	☐ð
Current SCE and SDG&E rebate programs discourage residential energy efficiency	12	☐ð
Failure to utilize EE and solar drives us into a false “choice” between nuclear and gas.....	14	☐ð
Huntington Beach Power Plant.....	14	☐ð
WEM’s proposal for clean resources planning for nuclear outages pending from May, 2011	15	☐ð
WEM proposed that utilities report load and generation by distribution substation	15	☐ð
Will Edison’s money problems lead to poor procurement choices?.....	15	☐ð
Edison Mission Energy’s portfolio: mostly coal	16	☐ð
QUALIFICATIONS AND PREPARED TESTIMONY OF BARBARA GEORGE	19	☐ð

ERRATA:

In the section on residential air conditioning in current EE portfolios (p. 12), WEM erroneously listed the kW savings in the SCE energy efficiency reports as MW.

We also corrected the citation for the quote from the Energy Div. Straw Proposal (p. 15).

This document also removed the sections that were stricken per 7-17-12 ruling.

**WOMEN'S ENERGY MATTERS
OPENING TESTIMONY IN TRACK I AND III**

**[PAGES 1 THROUGH 8 WERE STRICKEN PER 7-17-12 ALJ RULING PURSUANT TO
7-6-12 MOTION BY SCE**

Energy Efficiency alternatives should be allowed to compete on a level playing field

California's concerns about summer peak energy demand, air credits and carbon emissions can more effectively be addressed by targeting aggressive efficiency measures, particularly central air conditioner replacements, to the LCAs served by the San Onofre nuclear power plant.

The current San Onofre outage highlights serious gaps in California's procurement policies. It is noteworthy that Energy Efficiency, the number one resource in the Loading Order, has been ignored until very recently in the resource options proposed for the San Onofre outage. The Commission needs to address this oversight immediately.

Long-term, the Commission needs to develop better policies for using demand resources, DG and small renewables, particularly for emergency replacement requirements caused by nuclear outages (and unexpected loss of other large facilities) — but also for replacement of Once-through-cooling gas plants — as WEM proposed over a year ago in R1005006.¹ These policies should follow the Loading Order, be transparent, and allow for public input. Furthermore, the Commission needs to do what it can to ensure policy coordination with other agencies, including CEC and CAISO.

Following up on our proposals, WEM recommends a pilot Procurement Demand Reduction program focusing on energy efficiency measures targeted to specific circuits in the LA Basin-Orange Co.-San Diego LCAs, to relieve constraints caused by the outages of San Onofre Units 2 and 3. Substantial grid-reliable load reductions could be achieved in time for next summer when the Huntington Beach Units 3 and 4 will likely no longer be available.

It would still be possible to achieve meaningful reductions this summer. For this, CPUC could order a special "Summer Initiative" EE program targeting the LCAs formerly served by San Onofre, allowing cities and third parties to independently administer them, if SCE and/or SDG&E continue to overlook this option. To the extent that EE reduces the load, it would also reduce the need for voltage support.

Targeting EE to this area to achieve demand reductions this summer would further reduce any credible risk of rolling blackouts or brownouts due to the nuclear outage. It would not yet provide for "official" recognition of EE as providing capacity and resource adequacy, unless the

¹ See, e.g. May 23, 2011 WEM Alternative Bundled Procurement Plan, Errata, in R1005006.

Commission and ISO takes unusually quick steps to designate grid-reliable EE, as providing net qualifying capacity (“NQC”).²

In order to obtain NQC status in the usual timeline, this Commission would need to create new rules in this proceeding for enabling grid-reliable EE and other demand resources to compete on a more level playing to meet Local Capacity Requirements.

Such energy efficiency programs would create jobs in the economy and reduce ratepayer electric bills, which would help struggling families and also provide more expendable income that would feed the local and state economy. Energy efficiency can provide all this *without producing carbon emissions or air and water pollution.*

Updated EE Avoided Costs expected to increase focus on peak load reductions

According to the CEC, air conditioning is approximately 30% of peak load, but for many years energy efficiency efforts devoted to heating and air conditioning systems (HVAC) have been limited, especially in residential programs.³ The Commission included HVAC in the “Big Bold Energy Efficiency Strategies” (BBEES) to try to increase focus on this area.

Unfortunately, the BBEEs have been largely excluded from the projections for 2013-2020 in the “Uncommitted Incremental EE Report,” and the Navigant Potential study on which EE goals were based — and therefore were not reflected in the CAISO sensitivity study. This is unrealistically pessimistic, and will lead to major forecast errors.

By making major changes in EE Avoided Costs assumptions, the Commission has recently removed the most serious barrier to EE programs focusing on HVAC, fans, evaporative coolers and “shell measures” that reduce energy for cooling (e.g. insulation, white roofs). New Avoided Costs are closer to reflecting the actual costs of peak power, while previous figures used averages.

The old EE Avoided Costs resulted in an overwhelming focus on lighting in EE programs. This is because lighting is utilized more hours of the day and throughout the year, so

² The Commission and ISO should also move as quickly as possible to provide NQC designation for Demand Response, “customer” solar and small renewables attached to the distribution systems.

³ In part, this is because the Commission is reluctant to grant rebates unless contractors pull building permits for HVAC replacement and also obtain HVAC installation training and certification. Air conditioner replacement often takes place after an older HVAC unit quits working, thus there is often great pressure to do it quickly at the lowest possible cost. The vast majority of HVAC replacements are done without permits or certification, due to the increased cost and delay of the permitting and certification processes.

when the greater number of hours were multiplied by averaged EE Avoided Costs, efficient lighting *appeared to* provide much more “bang for the buck” than efficient air cooling measures. Most importantly for utilities, the old flawed Avoided Costs calculations led to greater “shareholders incentives” bonuses for EE programs that paid little attention to the peak.

While some commercial lighting is on during peak hours, most of the energy savings from residential lighting occurs at night, making it virtually useless for reducing peak power. (Over half of the IOUs’ billion-dollar a year EE programs in 06-08, and just slightly less of their \$1.3 billion 2010-12 programs, consisted of incentives for Compact Fluorescent Lights (“CFLs”), which consumed almost all residential program dollars.)

A little-appreciated consequence of the old EE Avoided Cost methodology was that it led to higher rates, because the peak continued to increase (largely unaffected by EE), while EE reduced the need for baseload. In other words, the overall costs of energy production have had to be spread over fewer hours of use. This is especially true of baseload, which is produced whether it’s needed or not.

Ever-higher peaks have also been driving increased rates, because the need for additional capacity is imposed on all customers although it’s only needed for a few hours a year. Peak load has been relentlessly driving procurement of new gas power plants and to a certain extent new transmission as well. The costs of keeping this capacity available for use, as well as building and operating new power plants, have to be recovered during fewer hours of operation (the peakiest peak). This is less and less sustainable for everyone.

CA could reduce rates with capacity markets that include demand side resources

The Commission should look into creation of a Capacity Market that includes demand-side resources, such as the system that has been operating since 2009 in ISO-New England territory.

By contrast to the current system, energy efficiency measures that address peak power, and other demand side resources (demand response and distributed generation, including rooftop solar) would contribute to economic recovery through *lowering rates for all ratepayers*, in addition to those who benefit from EE programs. *Demand-side resources would avoid the need for nuclear power, and would reduce or eliminate the need for replacement or repowering of other Once-Through-Cooling power plants.* Thus, utilizing EE and other demand resources would clean up the air and water, reduce global warming emissions, and provide many more jobs and local economic benefits through the program work as well as overall rate reductions.

Greater use of demand-side resources would also assist in the growth of renewables, by offsetting their higher costs. A higher RPS would become more affordable.

Current EE programs are doing little to reduce residential air-conditioning load

At the relatively meager level of expenditures of current EE programs, there have been minimal savings from residential HVAC. According to SCE's report dated April 30, 2012, its 2010-12 Residential Quality Maintenance and Commercial Quality Maintenance Development had spent \$8,798,018 and achieved savings of 657,611 kWh and 324 kW. The program initially had a much lower budget and tiny goals: Initial budget of \$3,080,674, projected savings of 9,235 kWh, 15 kW.⁴ In the month of March, 2012 alone, Edison spent \$364,372 and achieved 18,407 kWh and 6 kW.⁵

Recommendations for aggressive EE targeted to replace San Onofre nuclear power

An aggressive residential HVAC equipment rebate program and long-term finance program could provide substantially more reductions in peak demand. The Sacramento Municipal Utility District⁶ has such a plan and their application process is very simple (unlike SDG&E and SCE).

A more aggressive HVAC rebate and finance program targeted to the San Onofre pocket area would be effective in replacing power from the crippled nuclear plant. In addition, rebates for whole house fans, attic fans, ceiling fans and insulation would help significantly reduce peak demand.

EE could also reduce or eliminate the need for less savory replacement options like the Huntington Beach facilities. Over time, these measures could significantly defer or displace the need for other gas plants and transmission upgrades.

Current SCE and SDG&E rebate programs discourage residential energy efficiency

SCE and SDG&E are allowed to collect and spend billions of dollars of ratepayer money for energy efficiency programs. As of April 30, 2012 SCE still had almost half a billion dollars in its 2010-12 energy efficiency budgets that were supposed to be used by the end of 2012; SDG&E had over \$100 million.⁷

⁴ <http://eega.cpuc.ca.gov/Documents.aspx> See Report Name: SCE.MN.201201.1.xls □ð

⁵ These figures are taken from utilities' monthly reports, which have not yet been subject to CRUC's independent Evaluation, Measurement & Verification (EM&V).

⁶ <https://www.smud.org/en/residential/save-energy/rebates-incentives-financing/heating-and-cooling/index.htm>

⁷ <http://eega.cpuc.ca.gov/Documents.aspx> See Report Names: SCE.MN.201204.1.xls; SDGE.MN.201204.1.xls

From the customer's point of view, IOU programs discourage participation and make it difficult to access EE dollars, especially for HVAC.

- SCE and SDG&E offer residential customers limited rebates to upgrade to more efficient central heating and cooling (HVAC) systems.⁸ They only offer rebates on *installation costs* for new air conditioning systems.⁹ The number of contractors to choose from is small and there are other hurdles that make this program less attractive. The information is difficult to find on SDG&E's website¹⁰. It refers you to a vendor website¹¹ for information, with no mention of rebate amounts.
- SDG&E's Energy Efficiency Business Rebates Product Catalog¹² lists rebates available to business. No central air conditioning systems are included.
- SCE's Business Solutions Directory¹³ contains the most complete and current list of eligible equipment ("solutions") and qualification criteria for incentives available to customers through SCE's 2010–2012 Energy Efficiency Program. It also includes a summary of Demand Response Technology Incentives available for customers installing qualified equipment that enables load-shifting strategies. Updates on program changes (due to funding availability or other reasons) are located on the website for SCE Energy Management Online Application Tool¹⁴. SCE has recently added "ice storage air conditioning installation rebates" to their HVAC Optimization Program.¹⁵ However, none of this helps the residential customer.

Other changes in EE and LTPP should greatly increase energy savings

EE will be improved in 2013-14, when the Commission will allow cities within Regional Energy Networks to administer EE independently. Also, the rules process in Track 1 of this TPP will hopefully establish a process for EE (and DG) to compete in procurement – either as a capacity market or in the micromanaged RA/LTPP process.

⁸ <http://sdge.com/save-money/your-whole-house/upgrade-and-save>

⁹ <http://www.ac-quality.com/homeowners/qi>

¹⁰ <http://sdge.com/save-money/your-heating-and-cooling-systems/increase-your-ac-confidence>

¹¹ <http://www.acqualitycare.com/Projects/>

¹² <http://sdge.com/sites/default/files/documents/483825208/Business%20Rebates%20Product%20Catalog.pdf>

¹³ <http://www.sce.com/nrc/ems/download/solutionsdirectory.pdf>

¹⁴ <https://www.sceonlineapp.com/>

¹⁵ <http://asset.sce.com/Documents/Business%20-%20Energy%20Management%20Solutions/HVACOptimizationIceStorageFactSheet.pdf>

Failure to utilize EE and solar drives us into a false “choice” between nuclear and gas

See WEM reply PD track 1 in R1005006 – WEM’s summary of PG&E’s relicensing, demonstrating that the NRC guidelines envision the use of only one “single” resource to replace full amount of a nuclear power plant. This forces a false choice of natural gas or coal “baseload” as the only alternative to nuclear.

California may be falling into this trap by making gas plants the central feature of replacement resources.

Huntington Beach Power Plant

The Huntington Beach Power Plant (HBPP) Units 3 and 4 have been brought back online to provide for reliability. Mission owns HBPP. Edison initially sold all of HBPP to AES, but Mission recently bought back Units 3 and 4, in order to utilize the emissions credits, which it plans to transfer to the Walnut Creek Energy Center when (and if) it starts up in fall, 2012. Walnut Creek is currently under construction.

At the workshop, there were discussions of the relative capabilities of HBPP and Walnut Creek to backstop for a continued outage of San Onofre. While Walnut Creek is larger, and obviously newer and cleaner, ISO’s Berberich said it provides none of the grid support supplied by HBPP, so could not be used next summer if San Onofre is down.

However, the ISO appears to have stated otherwise in CPUC Resolution EGPB-12¹⁶ dated April 26, 2011:

The California Independent System Operator (CAISO) examined the grid reliability implications of retiring HB Units 3 and 4 and designating Walnut Creek as the replacement. **After conducting power flow simulations, the CAISO concluded that the transaction would not create any reliability concerns.**

The simulations indicate that even under certain double transmission outage conditions near Huntington Beach, the CAISO could dispatch other generation or utilize existing voluntary load dropping programs.

Ben Davis asked if San Onofre is still down next year, can we bring HBPP back online. That appeared to be a non-starter with the agencies. It appears to be the ONLY way Edison will make money is with new gas plants. Perhaps this is because Edison’s “assets” in other states have turned out to be liabilities.

¹⁶ http://docs.cpuc.ca.gov/word_pdf/COMMENT_RESOLUTION/134146.pdf

WEM's proposal for clean resources planning for nuclear outages pending from May, 2011

WEM proposed that utilities report load and generation by distribution substation

HOW CAN WE DETERMINE WHAT THE RESOURCES ATTACHED TO UTILITY DISTRIBUTION SYSTEMS CURRENTLY CONTRIBUTE TO THE GRID?

Energy Division asked utilities to report (1) the actual historic loads at summer peak and (2) mix of customer classes — at the distribution bus level. However, the Straw Proposal revealed that utilities were unable to produce all of this information. Energy Division noted:

Discussions with SCE revealed two things:

The California ISO/SCE transmission modeling conventions for the SCE transmission system controlled by the California ISO were unknown to the SCE organizational units with access to individual customer usage data; and

No information was readily available about the composition of load by customer class at summer peak conditions.

A series of conference calls by CPUC and CEC staff with SCE pursued these concerns over the spring and summer months of 2011. Parallel discussions with SDG&E and PG&E revealed the same concerns to greater or lesser degree depending upon circumstances unique to each utility. ED Straw Proposal, Appendix A, p. 3.¹⁷

What utilities said they **COULD** provide could be used to develop more information as follows:

- The customer's address – which could be mapped to a particular distribution bus
- The customer's rate schedule - which would reveal what class it is in
- Whether the customer participates in net-metering – which would reveal the presence of solar panels.

It should be possible for utilities to utilize information in customer records in their billing systems while at the same time cross-referencing it with information about their distribution systems?

Will Edison's money problems lead to poor procurement choices?

Edison International, the parent company of Southern California Edison, faces potential default of its power plant-owning subsidiary, Edison Mission Energy, according to investment

¹⁷ 5-10-12 ED Straw Proposal, Appendix A, "Assessing Impacts of Incremental Energy Efficiency Program Initiatives on Local Capacity Requirements" by Mike Jaske, California Energy Commission, p. 3.

advisories. Over 7000 MW of Mission's portfolio consists of coal.¹⁸ According to its organizational chart online, Edison International has only two subsidiaries — the utility and the power plant owning subsidiary, Edison Mission Energy (“Mission”).

Edison's utility subsidiary, Southern California Edison (SCE), is majority owner of San Onofre Nuclear Waste Generating Station (SONWGS), which has been shut down for six months because of serious problems with its nearly-new steam generators, and may be unable to restart.

SCE's operating revenue was approximately \$10.6 billion in 2011. Sources of energy to serve SCE's customers during 2011 were approximately: 36% purchased power; 21% CDWR; and 43% SCE-owned generation. Nasdaq website, quoting SEC filings.

Oddly, investors seem unconcerned about these problems, as the price of the utility, and its parent, have grown slightly in the past 6 mos. instead of falling. We have little information about Mission, *which is privately held. However, the ratings agencies have downgraded its stock and are warning of default.*

Edison Mission Energy's portfolio: mostly coal

In the California energy crisis of 2000-2001, the Commission initially attempted to hold utility holding companies to their promise to protect utilities from the vagaries of a deregulated market, even if that meant cashing out the assets of their unregulated subsidiaries. Instead of protecting utilities, the holding companies chose to protect the assets of their unregulated subsidiaries, which were heavily invested in coal and gas-fired power plants. The Commission forced ratepayers to bail out the companies. PG&E later lost its power plant subsidiary, but Edison International's power plant subsidiary survived — Edison Mission Energy.

But once again, the interests of the private owners of Mission appear to be heavily influencing the choices of a regulated utility. It appears that Mission is in trouble. We received the following email from a local ratepayer:

Did you know that one of Edison International's main subsidiaries is rated in a 'DEFAULT of some kind appears PROBABLE' ("CC") category by Fitch rating service???? (See link below from Reuters (4/24/2012) regarding the Fitch downgrade-- scroll down a ways for story once you click on link)
I stumbled upon this today, and had no idea...

Apparently Edison International (EIX) is the parent company of several subsidiaries. The main ones are Southern California Edison, which is the utility that owns the San Onofre

¹⁸ See chart, EME power plants listed on Edison International website.

Nuclear Plant and has been around over 100 years, and Edison Mission Energy, which owns numerous types of energy plants around the country and has one of the (if not the) largest collection of winds 'farms' in the country. (Edison Mission Energy has been around since 1986.)

Edison Mission Energy (EME) is in BIG trouble financially--they are deeply in debt (to the tune of about \$4 billion); their half a billion line of credit has been cut off; they are in a terrible cash flow crunch; they have huge bonds coming due in the next year and don't know how they will repay them; (according to a financial blog I found) their (EME) bonds today are being sold on the open market at a 50% discount (two months ago they were only discounted 25%); they have hired a firm, Kirkland and Ellis, to analyze their "reorganization" (AKA 'prospective bankruptcy') options, and the bondholders have also hired big gun counsel to look at their options. Sounds like a real mess! Supposedly Edison Mission Energy has gone to the parent, Edison International, for financial assistance, and gotten turned down on more than one occasion.

Edison's credit rating: <http://www.edison.com/files/eixcreditratings.pdf>
<http://mlvb.net/biz.yahoo.com/e/120229/93083510-k.html>

Appendix A
QUALIFICATIONS AND PREPARED TESTIMONY

QUALIFICATIONS AND PREPARED TESTIMONY OF BARBARA GEORGE

Q1. Please state your name and business address.

A1. My name is Barbara George. My business address is P. O. Box 548, Fairfax, California 94978.

Q2. By whom are you employed and in what capacity?

I am the Executive Director of Women's Energy Matters (WEM) and I am working with WEM as an advocate in the R1005006 proceeding.

Q3. Please describe your educational background and professional experience.

A3. I received a B.A. from Stanford University. I have been WEM's principle advocate in multiple CPUC proceedings since 2001. I have worked in many capacities on energy policy issues since the 1970s, particularly supporting energy efficiency and renewables, and analyzing the dangers of nuclear and fossil fuel power.

Q4. What is the purpose of your testimony?

A4. I am sponsoring WEM's testimony on nuclear power and demand resources.

Q5. Does this complete your testimony?

A5. Yes, it does.