BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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 REPLY COMMENT ON TRACK 3, RULES

November 30, 2012

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WOMEN'S ENERGY MATTERS REPLY COMMENT ON TRACK 3, RULES

Women's Energy Matters (WEM) appreciates this opportunity to reply to parties' Nov. 2, 2012 opening comments, pursuant to the *Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge*, dated May 17, 2012, and the October 4, 2012, email of ALJ Gamson modifying the due date. There was no page limit on comments or replies.

Item 2: Let's have competition in procurement!

Item 2 in the Scoping memo was "Preserving competition in the resource adequacy market." DRA proposes to have the Commission (not utilities) choose Independent Evaluators (IE), so as to "ensure a fair, competitive procurement process free of real or perceived conflicts of interest."¹ This would certainly be helpful.

The issue begins earlier, though, long before the IE gets involved. It starts with who and what even gets to compete in the solicitations.

In WEM's view, the most important thing to accomplish in this proceeding is to *establish competition in procurement, fully empowering "demand-side" resources, renewables, and storage technologies to compete.* (Demand side resources, aka "behind-the-meter" or "customer" resources, include energy efficiency, demand response, "demand-side" solar and other distributed generation (DG), and combined heat & power (CHP).)

DRA noted that the Commission's recommendations to ARB on measures and strategies for reducing GHG emissions in the electricity sector highlighted "aggressive energy efficiency programs, obtaining at least 33% of California's electricity from renewable sources, and increased reliance on combined heat and power facilities..."² DRA also proposed that each IOU to develop its "best estimates of the GHG emissions reductions available across its portfolios and the average cost of achieving those GHG reductions from a given measure."³

¹ DRA, pp. 6-7. CEJA concurs, p. 3.

² DRA, p. 5.

³ DRA, p. 3.

This would be helpful, but it still leaves a big gap between the Commission's recommendations to ARB five years ago, any future accounting of GHG reductions for specific resources — and actual opportunities for preferred resources to compete against GHG-emitting resources in procurement. Rather, GHG emissions data is being used to promote *nuclear power:*

DRA recognizes that currently, an output of the scenario modeling in the LTPP is GHG emissions. While the output of GHG emissions from scenario modeling will be useful to inform long-term procurement planning, the proposed scenarios thus far do not isolate the GHG impacts of utility programs and procurement decisions, but instead have been developed to inform the other prioritized issues of nuclear policy and flexible resource need.⁴

CAISO proposed to consider some "demand-side" resources as *energy supplies*, provided that they meet standards to qualify for procurement. WEM also advocates this methodology. CAISO explained why this is needed to make preferred resources compatible with supplies and fully eligible for use on the grid:

The ISO supports integrating preferred resources into non-discriminatory, long-term resource procurement solicitations.

The ISO understands the "comparability" and competitive procurement challenges of resources, which on the surface appear to be apples and oranges. However, in the end, all energy resources must cost-effectively, efficiently, and reliably serve consumer energy needs and satisfy system reliability. <u>Reliably</u> serving consumers means resources supply (or dependably offset the need for) energy in the right amount at the right time and in the right place. So even though conventional and preferred resources may be structurally different, the energy service and reliability they must provide is ultimately the same. For instance, dispatchable resources, like demand response and storage, must help balance supply and demand, and non-dispatchable resources, like energy efficiency or behind the meter generation, must eliminate demand that would otherwise have to be balanced with supply. In the end, all resources, regardless of size, configuration, or type must fundamentally deliver the operating characteristics that can measurably support grid reliability by helping to balance supply and demand or by eliminating the need to do so.⁵

Items 2, 3, 5, 12, and 13: WEM agrees with CAISO's emphasis on the need for energy "in the right amount, right time, and right place." For this reason the Commission must order utilities to begin tracking location by substation as part of a new Evaluation, Measurement & Verification (EM&V) system for energy efficiency and other preferred resources, which should occur as close to real time as possible, at least

⁴ DRA, p. 5, emphasis added.

⁵ 10-9-12 CAISO Comments on Workshop, pp. 1-2.

monthly or quarterly. The Commission should ensure that CAISO gets this information and that it is made publicly available to the maximum extent possible.

CAISO explained that demand resources must be considered as supplies in order to function in its markets:

The ISO meets its reliability needs through the markets it operates for energy and ancillary services. To ensure DR resources have supply-side equivalent characteristics, it is important that DR 1) qualifies as a capacity resource, whether participating under contract with a load-serving entity or directly in the ISO market and 2) participates in the ISO market as a unique and identifiable supply-side resource with attributes recorded in the ISO's master file database... Demand response resources that are not configured to participate as a resource in the wholesale electricity market should not qualify as supply-side capacity resources or be eligible for procurement under utility RFOs. Without being integrated into the ISO market as a resource, demand response can only be known by the ISO second-hand through the load-serving entity, not first-hand through a market bid or schedule. And since it is not bid or scheduled through the ISO, its use and effectiveness cannot be efficiently optimized alongside all other resources.⁶

Prioritize drafting standards for "operating characteristics" including flexibility

Standards for "operating characteristics" are as-yet unwritten, so the first order of business should be to codify standards, both for supply-side resources and demand-side equivalents, as discussed in WEM's opening comments.

PG&E also emphasized the need to establish standards as soon as possible, although it only seemed interested in standards for "operating flexibility."⁷

(Note - PG&E filed a motion to push the Commission to move issues #1, 9 and 12 into the Resource Adequacy proceeding. SDG&E and SCE supported it. This venue-shopping should be rejected. As the Assigned Commissioner and CAISO stated in the hearings, this proceeding has by far the most robust record on resource characteristics or "attributes" needed for procurement.)

Items 1, 2, 3, 9, and 12: In order to <u>establish — and preserve competition</u> in the resource adequacy market — or any other market — the Commission, CAISO and CEC must first determine the "attributes" and "characteristics" needed for various types of procurement tasks (from basic load serving to renewables integration to various ancillary services to the most stringent grid contingencies); defining both

⁶ 10-23-12 CAISO Reply Comments on Workshop, pp. 3-4.

⁷ PG&E, pp. 2-3.

supply-side and demand-side equivalents of these characteristics to enable the broadest array of resources to compete.

Renewables integration and other supposed needs for "flexibility"

DRA called for the Commission to better integrate information from the RPS proceeding into the LTPP, and "initiate a process to account for the most accurate RPS information [in] the LTPP immediately following a decision on Track II issues."⁸

This would work in reverse, too:

For example, a LCR needs determination made in the LTPP could inform the IOUs' future RPS procurement planning by allowing the IOUs to target their annual RPS request for offer (RFO) solicitation to preferred resources that meet both LCR need and fulfill their RPS goals.⁹

WEM concurs.

In WEM's view, the esoteric requirements of "operating flexibility" are being used (whether deliberately or not) as a way to *avoid and undermine* rather than *fully integrate* renewables and other clean energy into procurement. This should be made clear in the RPS proceeding.

In Track 1, advocates of conventional resource procurement were asking the *Commission to require <u>all new procurement</u> to meet requirements for flexibility and/or the most stringent dispatchability*, although it was far from clear how much more flexibility etc. would really be needed. CAISO, utilities and others indicated that they thought gas resources would be the only type of resources that would qualify.

We discuss below and in previous comments why this argument is misleading, obsolete — and by the way, suicidal.

Flexibility helps to accommodate intermittent renewables — i.e. wind and solar. Only modest amounts of these resources are currently on the grid. Their integration could be handled by other existing renewables (and storage), which are flexible, firm (i.e. not intermittent), *and currently more plentiful than intermittent renewables* — i.e. geothermal, small hydro, biomass and biogas:¹⁰

⁸ DRA, pp. 9-10.

⁹ Ibid, p. 11.

¹⁰ Even if "demand-side" solar is included with the intermittent renewables category, there are still more non-intermittent renewables.

Fuel Type	CA In-State Generation (GWh)	Percent of CA In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	CA Power Mix (GWh)	Percent CA Power Mix
Renewables	33,244	16.6%	5,398	2,751	41,393	14.5%
Biomass	5,777	2.9%	419	-	6,195	2.2%
Geothermal	12,685	6.3%	-	574	13,259	4.7%
Small Hydro	6,130	3.1%	6	_	6,136	2.2%
Solar	1,058	0.5%	29	130	1,217	0.4%
Wind	7,594	3.8%	4,945	2,047	14,585	5.1%

Excerpt from: 2011 Total System Power in Gigawatt Hours¹¹

Note: CPUC, CEC and/or CAISO should provide more transparency on the "power mix" of each load-serving entity, the CAISO system, and the state as a whole. WEM encountered difficulties finding verified numbers, as explained further in the footnote below. WEM strongly endorses CEJA's comments on the need to improve transparency in the procurement process overall.¹²

It's possible that the proportion of intermittent v. non-intermittent renewables could remain relatively constant as California moves to 33% renewables and beyond. In that case, additional flexibility needed for "renewables integration" would mostly be solved — by procurement of firm renewables. Additional amounts of flexible resources that may be necessary due to Local Capacity restraints, could be solved through the

¹¹ CEC Energy Almanac, Total Electricity System Power

<u>http://energyalmanac.ca.gov/electricity/total_system_power.html</u> While this chart is statewide, rather than just for IOUs, the proportions in utility "power content labels" and annual RPS reports are roughly similar. Note, however: whether this chart represents what's really on the grid isnot at all clear. In a July 28, 2009 letter to all retail providers: *Subject: Updates to Net System Power Data for the Power Content Label*, CEC revealed that the Energy Almanac and Utility Power Content Labels are not comprehensive. It stated:

The original intent of the Power Content Label was to provide customers information on the generation sources used by their energy service provider compared to an average of other providers' supply sources. However, the statute and associated regulations defining the format and content of the power content label were implemented when Net System Power was expected to remain a high proportion of total electricity sales. The Net System Power mix once repesented a large portion of the total electricity supply, but is now only the small residual amount that providers do not disclose...

The use of Net System Power to estimate Green House Gas (GHG) emissions has also become an issue. However, because net system power estimates are not representative of the actual power mix used in California, they cannot be used to monitor the progress of the California Renewable Portfolio Standard or establish a representative greenhouse gas profile of electricity imports... The Energy Commission recognizes that the Power Content Label can be misleading and cause consumer confusion about retail electricity products with respect to California's fuel mix, and so in this letter we offer suggestions on providing clarifying information .

WEM was unable to find any followup on CEC's website, and a brief conversation with CEC staff indicated that the problems remain unresolved.

¹² CEJA, pp. 1-3.

process DRA proposes — better integration of LTPP and RPS proceedings — or by existing conventional resources.

CAISO's 7-20-12 Renewable Integration Study presented wildly different assumptions from the numbers listed above. It forecasted dramatic increases in solar and wind and only tiny amounts of geothermal, biomass/biogas and small hydro.¹³ (Storage was not included.) We believe these assumptions could be greatly exaggerated. In any case, they are not inevitable.

Items 1,9, and 12: The Commission should require utilities to increase procurement of geothermal energy, other firm renewables and storage, in order to maintain more parity between intermittent and non-intermittent renewables.

Items 1,9, and 12: To the extent flexibility is actually needed for renewables integration, existing gas resources could suffice — along with demand response, storage, and certain types of energy efficiency. Even if CAISO's predictions come to pass, there will still be more existing (gas) resources than all renewables. The current ratio, statewide, is 36.5% gas to 14.5% renewables.¹⁴

(Note that it's unnecessary to have 1:1 backup for intermittent renewables. The diversity of the grid itself provides backup — somewhere else the sun is shining or the wind is blowing.)

Flexibility and dispatchability for ramping, ancillary services and grid contingencies

Some contend that flexibility and dispatchability are also needed for daily ramping up to peak power and down again, ancillary services, and grid contingencies.

In Track 1, "flexible, dispatchable" gas power was assumed to be the "silver bullet" to address these problems. However, *the need for ramping up and down to accommodate peak load can be accomplished by non-flexible resources* including solar energy and a host of energy efficiency and demand response measures that closely serve or reduce peak load *because they are intrinsically related to the peak*. Storage and demand response can also address these needs, as well as ancillary services.

Any remaining need for flexibility and dispatchability for ramping, ancillary services, and grid contingencies could likely also be handled by existing (gas) resources — allowing new resources to serve the less demanding job of serving load.

¹³ CAISO's 7-20-12 *Renewable Integration Study*, Table 1. Renewables Portfolios for 2020, p. 3.

¹⁴ CEC Energy Almanac, Total Electricity System Power

http://energyalmanac.ca.gov/electricity/total_system_power.html

Items 1,9 and 12: Before setting any requirements for new procurement to have "flexibility," the Commission should first ascertain (and track annually in the future): to what extent existing supply-side resources, existing and new storage, demand reduction and grid enhancements can address the flexibility and dispatchability and other stringent requirements for grid contingencies and ancillary services needed within the time frame of this proceeding, in order to allow procurement to concentrate on preferred resources that may lack these attributes.

The Commission should require LSEs to use existing resources for those purposes, to relieve new procurement of the burden of "flexibility" as much as possible. This would spur procurement of a wider range of preferred resources, rather than limiting procurement to mostly conventional (gas) power.

Reject SCE proposal for blanket approval of contracts of 5 years or less

SCE proposed pre-approval of contracts of 5 years or less.¹⁵ The Commission must reject

this proposal — it would enable an end-run around preferred resources. SCE noted:

After extensive research, SCE has found only a few decisions and regulations that contain provisions that apply to contracts of "less than 5 years." All of these decisions fall into one of two categories: (1) AB 57 procurement plan related or (2) Senate Bill (SB) 1368 Emissions Performance Standard (EPS) related.¹⁶

The Commission should reject SCE's proposal for blanket authority to procure resources of less than 5 years.

The Commission should remove an unnecessary procedural barrier, by confirming that LTPPs cover procurement that may be called "short" or "medium" term — and that the Loading Order applies to these types of transactions. This proceeding is called the "Long-term Procurement Plans" and "long-term" is generally thought of as ten years ahead. In part, this is because of the very long lead times needed to site and build huge power plants. This is an obsolete assumption. Preferred resources can mostly be sited and built more quickly — for example, many efficiency measures, or solar panels, can be sited and installed in a matter of weeks — and some will last for ten, twenty, thirty years or more.

SCE's Track 1 proposal to "evaluate" the costs and capabilities of preferred resources *after* procuring long-term resources had the obvious effect of disqualifying preferred resources from meeting the need in the LA Basin. SCE tried to soften that impression by suggesting that it wouldn't procure all that it needed right now — some crumbs would be left for the greenies — but we would have to trust the company to decide how much and when.

¹⁵ SCE, pp. 3-9.

¹⁶ Ibid, pp. 8-9.

This demonstrated that competitive opportunities, like preferred resources, are sorely lacking in current procurement, and we should not look to SCE to champion it, especially not in short-term solicitations.

SCE promised to adhere to the Emissions Performance Standard (EPS) decision, D0701039. But, as discussed in WEM's opening comments, the EPS is based on gasfired resources and should no longer be considered adequate.

Greenhouse gas emissions and other climate change issues

Green Power Institute (GPI) raised interesting questions about the Scoping Memo's admonition, in Issue no. 3 under Track 3: <u>"Ensuring utilities reduce their need to procure</u> <u>GHG compliance instruments by pursuing cost-effective GHG emissions reductions</u> on a portfolio-wide basis." Scoping Memo, p. 12. GPI commented:

...[T]he <u>non-utility generators themselves will have to procure their own</u> <u>emissions allowances</u>. ...Thus the compliance instruments needed by non-utility generators presumably would not be covered by rules designed to minimize the utilities' need to acquire greenhouse-gas-compliance instruments... We also note that if rules are enacted for emissions reductions that go beyond the market value of carbon, there is a strong potential to create an incentive for utilities to shift emissions from the category of direct to the category of indirect (shift them to non-utility suppliers), which produces no net reduction in greenhouse-gas emissions. GPI, pp. 1-2 (emphasis added).

The PD was not yet issued in the GHG proceeding at the time opening comments were filed. WEM supports GPI's recommendation for having "expedited means for consideration of measures that might be needed to adjust for unexpected circumstances as the new program begins operation..." GPI, p. 3.

However, WEM thinks it's overly optimistic to assume that California's new cap & trade market will operate perfectly, as GPI seemed to suggest:

The essential rationale behind the creation of the hugely complex cap-and-trade program is to let the market set the value of carbon, and thereby the value of carbon reduction. When carbon emissions have a cost, those who emit them will have an automatic incentive to try to minimize them, and if the market is operating efficiently the magnitude of the incentive will be set at exactly the socially efficient level. Thus, we have to wonder what additional incentives the Commission thinks are necessary at this time in order to ensure that the utilities will be adequately reducing their need to procure greenhouse-gas compliance instruments to offset the emissions of their own operations. GPI, pp. 1-2.

Even if the market does what it's supposed to do, there's more that can and should be done. CEJA reminded us "To address this serious threat, AB 32 requires *actual* GHG emission reductions from sources such as utilities to achieve 1990 GHG levels by 2020."¹⁷

Sierra Club differentiated between climate impacts and other environmental impacts, pointing out, "actual emission reductions from the utility portfolios may reduce pollution more than compliance mechanisms, such as offsets, that are procured by utilities.¹⁸?

GPI implied that the funds from emissions allowances are *separate from* the types of things the utilities could do to "pursue cost-effective GHG emissions reductions on a portfolio-wide basis:"

[Emissions] allowances will be auctioned in order to generate funds <u>that are</u> <u>supposed to be used on behalf of the interests of ratepayers</u>, leaving the utilities to have to acquire from the marketplace all of the compliance instruments they need to cover their own emissions under the cap-and-trade program.

In fact, however, one of the ways the cap & trade funds "are supposed to be used on behalf of the interests of ratepayers," will be energy efficiency.

Energy efficiency is not only beneficial to ratepayers. If used strategically, it can also reduce the need for GHG-producing energy from plants owned by utilities, their affiliates, or merchant generators.

This is the kind of thing we thought was meant by Item 3 in the Scoping Memo – utilities maximizing efficiency and other preferred resources in the "Loading Order" – not just buying allowances. Thinking along the same lines, Sierra Club proposed:

The Commission should adopt rules to require bundled plans to explain and analyze how the plans will achieve greenhouse gas emission reductions on a portfolio basis... The bundled plans should explain and graphically demonstrate how emissions reductions will occur. This analysis should also incorporate implementation plans for compliance with the loading order." Sierra, pp. 1-2.

Greater utility procurement of clean energy does not only affect utilities, it also pushes the market to develop more wind, solar, storage, geothermal, biomass and small hydro. This might address GPI's worry about utilities just buying more dirty energy from

¹⁷ CEJA, p. 5.

¹⁸ Sierra, p. 2.

merchant generators (i.e. rather than using utility-owned facilities to produce dirty energy) since the merchants pay for those GHG credits rather than utilities.¹⁹

Nevertheless, GPI concerns might well be correct. Most of the traditional energy companies — merchant generators as well as utilities — are stuck on fossil fuels and highly resistant to clean energy projects. The market is intoxicated with cheap gas, and as we have seen in Track 1, the utilities and ISO still have a woeful lack of imagination about how to use preferred resources, especially in Local Capacity Areas.

There is far from universal agreement as to the efficacy of cap and trade; many see Europe's experiment with it as a failure. Some compare emissions allowances to indulgences from the Pope — more in the realm of faith than verified reality. Although the market just opened, with great fanfare and PR from certain quarters, one hopes that California will not put all its eggs in that basket, thereby losing precious time to do other things that more demonstrably reduce emissions.

Reject PG&E's proposal to reduce oversight of GHG offsets

PG&E wants to eliminate even basic rules in the GHG casino:

With respect to GHG procurement rules, PG&E urges the Commission to modify current procurement rules to allow utility procurement of offset credits that are developed by the utility, without need for a separate application. PG&E further urges the Commission to remove the restriction that requires all allowance and offset credit transactions to be conducted through a Request For Offers (RFO) or on an exchange.²⁰

The Commission should reject this proposal. It harkens back to the questionable offsets in PG&E's "Climate Smart" program, which have been roundly criticized.²¹

Sierra Club comments are based on the premise that the environment is multi-faceted, and the real goal must be holistic solutions that solve more than one problem — and do not create other, bigger problems.

The Commission should resist being stampeded by the cap & trade enthusiasts; opening yet another "derivatives" casino for Wall St. hotshots (including utility shareholders)

¹⁹ GPI seemed overly sanguine about the utilities "compensating" generators for the cost of their GHG emissions credits. With California's current power glut and the low price of natural gas, WEM believes it's more likely that merchants will offer low-ball prices just to get cash flow, rather than passing along all their costs.

²⁰ PG&E, pp. 1-2.

²¹ See *Shopping for Carbon Credits*, by Katherine Ellison http://www.salon.com/2007/07/02/carbon credits/

does nothing to reduce pollution in the LA Basin or the Central Valley — which have the dubious distinction of having the first and second worst air quality in the nation.²²

Quit pretending natural gas is "clean" energy; restrain runaway fracking

CEJA recommended, "The environmental assessment of projects evaluated in the RFO process" be made public."²³

Sierra Club included a key quote from the 2006 LTPP decision, stating in part:

We expect the utilities to show a commitment to not only meet the targets set by the Legislature and this Commission but to try on their own to integrate research and technology to strive to improve the environment, without compromising reliability or our obligations to ratepayers.²⁴

It's a bit disingenuous for the Commission to "expect" utilities to do things that may not further or might even run contrary to their fundamental responsibility as corporations *to increase value for shareholders*.

Our chances of survival as a species would be enhanced if this Commission would proactively set limits on all environmental damage by utilities, not only climate damage. It is the Commission's role to order the utilities to act in ways that benefit the public, since the CPUC's authority comes from government, which exists of, by and for the people. (The corporations have been trying for 130 years to convince us that they are "the people" but we know intuitively that that is false — that these amoral and immortal entities are the antithesis of humans, and will be our nemesis as well, unless real humans get them under our control — sooner, not later.)

Complying with the local and federal Clean Air and Clean Water Acts should be automatic — instead, the Commission and other agencies have allowed utilities to take their sweet time to address air impacts and Once-Through-Cooling.

Hydraulic fracturing for shale gas is causing an environmental uproar in many parts of the country where it has been rapidly expanded. California has yet to see this practice mushroom, but there will be hell to pay when it does, because the "Monterey shale" formation in California is enormous — and much of it intersects with our richest

²² S. Coast Air Quality Management District presentation at the CEC workshop on Electricity Infrastructure, 6-22-12 in Los Angeles, Slide 4. See filename<u>08 Wallerstein Air Quality-Related Energy</u> <u>Policy Affecting Electricity Infrastructure.pdf</u> at

http://www.energy.ca.gov/2012_energypolicy/documents/2012-06-22_workshop/presentations/ ²³ CEJA, p. 2.

²⁴ Sierra, p. 3, quoting D0712052, pp. 3-4.

agriculture and rangelands. A new article describes the disastrous impact of "fracking" on farmlands: *Fracking Our Food Supply*.²⁵ Among other things, it states:

Cows quit producing milk for their calves; they lost from sixty to eighty pounds in a week; and their tails mysteriously dropped off. Millions of gallons of fracking fluid contains 632 chemicals: 25% are linked with cancer or mutations 37% affect hormones 40-50% affect kidneys and nervous, immune and cardiovascular systems 75% affect sensory organs and respiratory and gastrointestinal systems

For those who think only climate issues matter any more: 60% of wells leak over a 30-year period — and methane has far greater impacts on the climate than CO₂.

Item 7: OTC power procurement policies

SCE wants the Commission to allow it more flexibility to contract with OTC resources. WEM asks that the Commission deny this, especially in view of the murky situation around the Huntington Beach facilities.

In Track 1 hearings SCE denied that Edison owned HBPP Units 3 and 4, which it in fact

purchased in 2011. Now HBPP is embroiled in FERC's finding of gaming by JP

Morgan, and Morgan is also trying blocking a retrofit of the HBPP 3 & 4 as synchronous

condensers. It's not clear whether Edison's Walnut Creek facilities will be completed, as

Edison Mission Energy (EME) faces bankruptcy this month.

For all these reasons, SCE should be kept on a very short leash.

Seaside OTC plants may face climate impacts

Climate impacts are not just created by power resources - in turn, these impacts create a

new reality, which affects power resources.

Procurement decisions, including power plant siting, must take into account the changing landscape of climate change, including rising sea levels and storm surges, which could overwhelm facilities built along the coast such as San Onofre — but also many Once-Through Cooling sites, which the Commission expects to be repowered.

SCE asserted, "OTC units represent over 70% and 55% of the total current LA Basin and San Diego supply, respectively."²⁶ The Commission must determine which of these sites may be vulnerable. For example:

²⁵ Elizabeth Royte November 28, 2012. This article appeared in the December 17, 2012 edition of The Nation. <u>http://www.thenation.com/article/171504/fracking-our-food-supply?rel=tumblr</u>

²⁶ SCE, p. 12.

This past summer, a disconcerting new scientific study by the climate scientist Michiel Schaeffer and colleagues — published in the journal Nature Climate Change — suggested that no matter how quickly we cut this pollution, we are unlikely to keep the seas from climbing less than five feet....

Worse, rising seas raise the launching pad for storm surge, the thick wall of water that the wind can drive ahead of a storm.

Floods reaching five feet above the current high tide line will become increasingly common along the nation's coastlines well before the seas climb by five feet. Over the last century, the nearly eight-inch rise of the world's seas has already doubled the chance of "once in a century" floods for many seaside communities.²⁷

We know, for example, that San Onofre Nuclear Generating Station — an OTC

facility — is extremely vulnerable to sea-level rise, sitting as it does on the beach, with

only a 13 ft. seawall. This is one more of many, many reasons to pull the plug on this facility permanently.

The Commission should be considering all its options in order to close SONWGS down permanently and secure the spent fuel pools and other facilities for the deluge to come. It should approve WEM's proposed process for a pilot program to procure short, medium and long-term clean replacement resources. Conclusion

It is critically urgent for the Commission to adopt rules to ensure that preferred resources are actually "plugged in" to the grid, using methodology and procedures such as WEM advocated in our opening comments on this issue.

The Commission should also embrace the opportunity to get real-world practice on the use of preferred resources in procurement, by ordering a pilot program to replace power from San Onofre.²⁸ The Commission should allow for old rules to be waived and new rules to be tested on that project.

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Respectfully Submitted,

/s/ Barbara George

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²⁷ Rising Seas, Vanishing Coastlines, by BENJAMIN STRAUSS and ROBERT KOPP, New York Times, November 24, 2012 <u>http://www.nytimes.com/2012/11/25/opinion/sunday/rising-seas-vanishingcoastlines.html?_r=0</u>

²⁸ WEM proposed such a pilot shortly after the San Onofre outage began on January 31, 2012, and discussed it most recently in WEM's Oct. 9, 2012 opening comments on the storage workshop.

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