

**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
OPENING BRIEF IN TRACK 1 - LOCAL CAPACITY RESOURCES**

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ISO and the Commission should first determine what resources already exist that have the “characteristics” to address contingencies. These should be used for that purpose, which would allow the newly identified “need” to take their place in serving load. 6 ☐đ

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The Commission must take time to determine whether there is any place for preferred resources in LCRs, otherwise they will probably languish on the sidelines for many more years. 15 ☐đ

The Commission should recognize that playtime is over for energy efficiency — and demand response. It’s time to start treating them as grownup resources. They could meet the requirements of procurement, but only if the Commission expects them to fulfill their promises. Both the Commission and the administrators need to quit pretending about that. EE resources that participate in procurement also need to be grounded, connected to real locations and tracked by substations, instead of floating around somewhere in the utilities’ territory. 20 ☐đ

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WOMEN'S ENERGY MATTERS
OPENING BRIEF IN TRACK 1 - LOCAL CAPACITY RESOURCES

Women's Energy Matters (WEM) appreciates this opportunity to present an opening brief on the issues in Track 1, Local Capacity Requirements (LCR), pursuant to ALJ Gamson's schedule put forth on the last day of hearings, August 17, 2012.

I. EXECUTIVE SUMMARY

The need for Local Capacity is driven by transmission constraints into heavy load centers, which limit the amount of capacity that can be imported. In addition to sufficient local capacity to serve local load that exceeds the import capability, there must be enough capacity available in the local area to handle contingencies on the transmission system that cannot be mitigated by other means, while maintaining minimum performance standards.

The general LCR need to serve local load should be kept in mind. It tended to be overshadowed by the subset of stringent requirements for meeting grid contingencies. Transmission performance standards require the ability to address the first and second worst contingencies in the Local Capacity Area (LCA). After the first contingency occurs, CAISO has only 30 minutes to set up the mitigation for the next one.

CAISO maintained in testimony and hearings that only natural gas plants can currently meet that requirement, and Edison agreed, with some caveats (which seemed somewhat insincere). Many parties disputed those findings in the hearings.

WEM asks the Commission to resist being railroad to approve procurement of gas resources for the LCR needs in this proceeding. Preferred resources — such as Energy Efficiency (EE), Demand Response (DR), Distributed Generation (DG), other Small Renewables, Combined Heat and Power (CHP), and Storage technologies — were all dismissed, on sometimes very flimsy grounds, as we will discuss below.xxx

WEM believes that preferred resources could take care of the entire LCR need identified in Track 1 of this proceeding (as well as the outage of nuclear power plants, which will be more fully explored in Track 2) — if the Commission were committed to making this happen.

It would be necessary for the Commission, the ISO, the utilities and the developers to make certain changes in the design and handling of preferred resources, but these changes would be fairly straightforward. The purpose of the changes would be to ensure that certain preferred resources would be able to meet — and would in fact meet — very specific LCR requirements.

The main things needed are (1) *a clear set of requirements* for each of the various preferred resources to identify how they could meet specific LCR needs (and better methods for ensuring accountability of those resources), (2) *better tracking* of preferred resources, (3) *targeting of preferred resources* to meet specific needs, and (4) a variety of potential grid enhancements.

There is tremendous urgency to move forward with these changes: to address rapidly advancing climate change; the ongoing slaughter of sea life by Once-Through Cooling power plants; the potential for catastrophic damage to the population and the economy from nuclear plants; and air pollution in LA Basin that is *the worst in the nation*, according to the South Coast Air Quality District.¹

Procedural Background

The Settlement in Track 1, the final track in the previous LTPP (R1005006) pushed Renewables Integration into this 2012-13 proceeding. At the time, this issue was seen as the primary driver for additional generation:

The proposed settlement is, in essence, a punt. The settling parties have agreed to defer determination of the core issue in this proceeding: the utilities' future need for additional generation. To the extent there may be any such need, it appears to be primarily driven by the necessity to integrate higher levels of renewable generation onto the system, in anticipation of a 33% renewable portfolio standard (RPS) target.²

It now appears that retirements of OTC and nuclear plants are the most significant drivers of additional LCR need (along with the need to address major contingencies on the transmission system in the local capacity areas).

¹ The South Coast Air Quality District power point presentation at CEC's Electricity Infrastructure workshop in Los Angeles, 6-24-12, where Commissioner Florio was on the panel.

² D1204046, p. 6.

WEM disagreed with settling parties on this point, and in fact, so did the utilities, although they were part of the settlement. The utilities expressed the need for new resources to address Local Capacity Requirements over a 10-year horizon, during which the Once-Through-Cooling (OTC) gas plants would need to be repowered or retired. WEM noted the utilities' concerns as well as the need to identify replacement resources for nuclear power plants because of their inherent lack of reliability and extreme risk to the economy as well as the population.³

In this 2012-13 LTPP, a decision was made to address Local Capacity Requirements first in this proceeding. The Scoping Memo indicated that renewables integration would be combined with OTC retirements in this process:

[Settling parties] found that in the first quarter of 2012 the ISO would present a study of integration of renewable power plants into local transmission-constrained areas, along with a study of the effect of potential once-through cooling (OTC) plant retirements... The settling parties recommended that the Commission issue a decision by the end of 2012 on the need for resources sufficient to integrate the number of renewable resources coming online to meet a 33% renewable portfolio standard by 2020 and the retirement of OTC plants.”⁴

The Memo ruled that the ISO study on LCRs through 2016 and the LCR needs related to retirements of OTC plants through 2021 were “consistent with the studies anticipated in the settlement agreement.” But it noted, “the ISO maintained that it cannot evaluate any additional renewable portfolio scenarios beyond those already in the record of R.10-05-006 in time for a decision by the Commission by the end of 2012.” Ibid, pp. 4-5.

Thus, we have less than a focused view of renewables integration in Track 1, since all issues are being viewed through the lens of Local Capacity Requirements and further ISO studies on renewables are not yet available. However, the Memo stated, “parties will have the opportunity to present evidence that the ISO’s studies should be modified, or that the Commission should consider additional factors beyond the ISO’s studies, for the purposes of determining local reliability needs.”⁵ Among the eleven issues the Memo urged parties to consider was:

³ 9-16-12 WEM Opening Brief, Tracks I and III, p. 21 (R1005006).

⁴ 5-17-12 Scoping Memo, p. 4.

⁵ Ibid, p. 5.

How resources aside from conventional generation, such as uncommitted energy efficiency, demand response, energy storage and distributed generation resources should be considered in determining future local reliability needs. Ibid.

This led parties, including utilities, to assume that the Loading Order applies to procurement in Track 1, although the Memo did not specify whether that is so.⁶

The only local capacity issues that are being resolved in this track of the proceeding are in the West Los Angeles Basin and the Moorpark (Ventura Co.) area, since San Diego LCRs are being addressed in a separate proceeding (A1105023).⁷

The July 17, 2007 Ruling stated that issues related to replacement for the San Onofre Nuclear [Waste] Generating Station would be addressed in Track 2, along with the potential retirement of the Diablo Canyon Nuclear Power Plant. SONWGs has been offline since January, 2012, and in September this year, the CAISO announced that it is planning for a second summer without San Onofre. It appears likely that one, possibly both units, will remain shut down for at least another year, if not permanently. During the hearings, ALJ Gamson clarified that the Local Capacity Requirements for Los Angeles in the absence of San Onofre would be addressed in Track 2, but he allowed limited references to the nuclear outage in this track.

II. DETERMINATION OF LOCAL CAPACITY REQUIREMENTS (LCR) NEED IN CALIFORNIA INDEPENDENT SYSTEM OPERATOR (CAISO) STUDIES

A. CAISO's LCR And Once-Through Cooling (OTC) Generation Studies

Three distinct types of LCR need: (1) load serving, (2) contingency mitigations, and (3) renewables integration.

The LCR need was presented as a single number, but we should really look at it as three distinct types of needs, some of which are overlapping. The extent of the overlap is one of the mysteries that has not yet been resolved, and is likely to remain through Track 2.

⁶ The Memo stated only that Track 3 would consider "an integrated plan to comply with state policies, including the loading order" in relation to bundled procurement plans." Memo, p. 13.

⁷ The final decision in the last LTPP stated: "SDG&E requested that the Commission authorize 415 megawatts (MW) of new generation to meet its Local Capacity Requirement (LCR)... [Many parties opposed this request.] This issue was moved to A.11-05-023 by a Joint Assigned Commissioners' Ruling issued January 18, 2012 in both this proceeding and in A.11 -05-023." D1204046, p. 13.

One type of need is local capacity to serve the local load, above and beyond what can be imported from outside the area. A second type of need is local capacity that meets stringent requirements in order to address contingencies identified by ISO. Three is whatever is needed to allow for an increase in renewables imports.⁸ We minimize our discussion of the type three, since we agree with Mr. Minick that it should be deferred to Track 2, which has just begun to consider “operating flexibility.”

The “characteristics” needed to address the first two types of needs are different, and they should be seen separately. ISO And SCE witnesses mostly lumped them all together.

Neal Miller’s Reply Testimony stated:

In particular, the most demanding requirements would be to address specific contingency-driven needs in a local capacity area where the exact timing of response, amount of response, and assurance of response have the tightest specifications, and the least margin for variance.⁹

□ ð
In □ ð the □ ð hearings, □ ð he □ ð added: □ ð □ ð
□ ð

[W]e do see needing all of the characteristics met, not three out of four. Something that provided everything else but simply couldn't be dispatched quickly enough would still not be useful. So we are talking to some extent of a premium specific need and a specific premium product.¹⁰

□ ð
We asked, is there any use in a local capacity area for resources that have less than the most stringent requirements? Mr. Millar didn’t really respond to this question, but SCE witness Colin Cushnie noted that “stringency” might not be required for all LCR resources:

Q However, you did mention before, I think it was you, that CHP, if it can take the place of a more flexible resource, would be useful in an LCR need?

A Yes. I used that as an example as

⁸ This was formerly called “renewables integration” but the terminology changed to “flexible capacity” and may need to change again to accommodate storage options. For example, a package of renewables combined with storage may not need additional resources to “integrate” them.

⁹ Exh. □ ð, ~~107~~ p. □ ð 12.

¹⁰ EH Vol. 3, p. 519.

to why you might not want to have very stringent standards in your solicitation because the CHP project by itself would not likely meet those stringent standards, but coupled -- if you are willing to allow Edison to do the analysis with sufficient flexibility, we can then look at various permutations of resource mixes including preferred resources to see if we can come up with a least-cost solution that does capture preferred resources.¹¹

The Commission should recognize that if SCE thinks CHP can be used to meet the LCR need by taking the place of a more flexible resource, other preferred resources should be able to do this too, including demand-side resources.

It is important to determine how much of the LCR need is actually for load-serving, as opposed to contingencies.¹² Preferred resources can much more easily fill this type of need, although some can also meet contingencies.

ISO and the Commission should first determine what resources already exist that have the “characteristics” to address contingencies. These should be used for that purpose, which would allow the newly identified “need” to take their place in serving load.

Mr. Minick discussed this: “The way I understand your question is, can we use existing flexible resources, and I know of quite a few.”¹³

ISO studies failed to look at this possibility. They reflected qualities of existing resources that make them more or less “effective” at serving load, but none of the “Portfolios” in the OTC study were used or useful to determine the amount of *existing* non-OTC resources that could be used to address grid contingencies, in particular, or renewables integration — while new resources which could not meet the most stringent requirements handle other local capacity needs.

¹¹ EH Vol. 4, pp. 696-697.

¹² The amounts needed for flexible capacity for renewables integration is another question, but we agree with Mr. Minick that these should be deferred: The Commission should establish final flexibility needs after completion and vetting of the CAISO's flexibility analysis in Track 2. EH Vol. 6, p. 1023 (quoting Minick's opening testimony). □ ð

¹³ EH Vol. 6, p. 1024.

Instead, the studies looked at the total amount of generation needed to address the top two contingencies, at peak hours of the year, subtracted the existing resources, and assumed that the amount remaining open — the “need” — would have to be able to meet the most stringent requirements to meet contingencies, rather than being allowed to simply serve load.

What are the “critical contingencies?”

The OTC study for 2021 states:

The most critical contingency for the Western sub-area is the loss of Serrano-Villa Park #1 or #2 230 kV line followed by the loss of the Serrano-Lewis 230 kV line or vice versa, which would result in thermal overload of the remaining Serrano-Villa Park 230 kV line. This constraint establishes the LCR numbers for the four RPS portfolios as listed in the table below:

Table 3.3-16: LCR for Western LA Basin with identified contingencies

Trajectory	7,797
Environmental	7,584
Base	7,517
Time	7,397 ¹⁴

The study says that not all of the current OTC generation capacity would need to be replaced:

The main drivers behind OTC generation need in the LA Basin are the Western LA Basin area and the Ellis sub-area. The OTC generation needed across all four portfolios ranges from 1,870 MW to 2,460 MW, assuming most effective units are selected. The ‘HIGH’ or ‘LOW’ OTC levels are determined by using less effective or more effective OTC units, respectively.¹⁵

The OTC study has a 3-page list of existing generators “with at least 5% effectiveness on Serrano-Villa Park 230 kV line constraint for Western LA Basin.”¹⁶ It lacks a key to determine which of them are the OTC units that will be shutting down.

The Commission should first determine which existing resources in the local area are type one (load serving) vs. type two (capable of meeting critical contingencies). Type one resources could be more easily replaced with preferred resources, without having to meet the “stringent” criteria necessary for type two.

¹⁴ Ibid, p. 232.

¹⁵ Exh. ISO-07, p. 239.

¹⁶ Ibid, pp. 233-235

Neal Millar revealed that while nuclear plants are technically dispatchable “when they’re running,” they’re not being used that way.¹⁷

SONWGS outage no longer listed as a major contingency

Critical contingencies are a moving target.

ISO’s 2013 Local Capacity Technical Study said:

The most critical contingency for LA Basin is the loss of one SONGS unit followed by Palo Verde-Devers 500 kV line...¹⁸

ISO’s 2010-11 Transmission Plan stated:

The study identified multiple contingency overloads on the 230 kV lines inside the LA Basin in portfolios 1, 2 and 4, all in the peak load scenarios.

Table 5.5-1 Power Flow and Post Transient Summary without Mitigation listed as “worst contingencies” all of the ones now considered most critical, through 2021, except for the top item, which was the loss of both reactors at San Onofre: “The study also determined that a SONGS G-2 outage causes voltage collapse for the peak load scenarios in all the portfolios.”¹⁹

The OTC study didn’t mention this contingency, for some reason, and modeled at least one SONWGS unit online when, in fact, both units have been out since January 31, 2012 and ISO announced in mid-September that it is currently preparing for summer 2013 without them.

Still more has been added to the system since then, which have ensured grid stability and reliability in spite of the loss of both units of SONWGS, which have remained shut down throughout the summer — without serious problems. Huntington Beach units 3 and 4 were restarted. Also, the completion of the Sunrise Powerlink was accelerated because of the SONWGS outage, and came into use this summer.

Just a year ago, in documents presented in R1005006, ISO stated:

It should be noted that San Diego generation also helps to reduce east to west flows into the Western LA Basin and provides voltage support since the Western LA Basin and San Diego area are closely connected to each other electrically. Therefore, the mitigation for the Western LA Basin thermal loading and voltage

¹⁷ EH, Vol. 3, p. 507.

¹⁸ Exh. ISO-18, CAISO 2013 LCT Study, p. 76.

¹⁹ CAISO 2010-11 Transmission Plan, p. 278.

performance considers the generation dispatch in San Diego. ISO's 2010-2011 Transmission Plan, p. 276.

Witness Sparks clarified that the SDG&E LCR need is being addressed in a different proceeding. The separation of these proceedings made it more difficult to consider the interactions between these areas.²⁰

The potential contribution of San Diego generation to the W. LA Basin should be kept in mind and explored further in Track 2, as part of the looking at the LCR needs due to the SONWGs outage. We assume that the LA Basin and SDG&E LCRs would no longer be considered separately in that process. Imports through Sunrise could potentially add to that.

Large generators and large power lines result in large contingencies; more preferred resources would moderate those problems

It is noteworthy that in massive blackouts, the areas that stay online tend to be those with preferred resources, which are usually tiny compared to large fossil fuel and nuclear plants.

In Mr. Minick's discussion of the Moorpark contingency, he made the point that the ISO's choice of mitigation was limited to a pair of 215 MW CTs, but the need might be much smaller.²¹ *ISO's model, however, did not accommodate the option of considering a smaller generator, since it only used CTs. ISO says these are "proxies" for any resource, but the proxy appears to bolster certain choices and bar others. ISO's models should begin to include preferred resources.*

Geography of transmission/distribution system is significant

WEM recommends that the planning process be more attuned to geographical realities.

While SCE witnesses warned that the Western LA Basin was a coastal region, so the air conditioning load is lower and there is less sunshine — they failed to mention that some of the transmission substations where major contingencies might occur are in fact located far from the coast. The Serrano substation is nearly 20 miles inland — east of

²⁰ 8-7-12 EH Transcript, Vol. 1, p. 110.

²¹ SCE-2, pp. 18-19.

Fullerton, Santa Ana, and Anaheim. These areas are much warmer than the coast. Furthermore, Serrano serves areas that are even farther inland.

There is great potential for EE and local solar to reduce the load throughout Los Angeles, including the W. LA Basin.

Witness Dana Cabbell said that there is a lot of PV in the eastern part of the system, where it can be a problem because there is less load there, “so you’re getting more flow through the distribution system, and sometimes it can’t even come up to the transmission system in those areas.” She said that in areas of high load, this is not as big an issue.²²

Cabbell said that there are as many as 30 sub-areas within the LA Basin, corresponding to major substations. Furthermore, she revealed that SCE’s distribution system includes much larger lines than in PG&E’s system — up to 115 kV.²³

Distribution — and preferred resources connected to it — are invisible to ISO

Neal Millar confirmed that ISO has *very limited information about distribution systems*.

Q But on the transmission systems you have quite a lot of information, yes?

A Yes.

... Q Would ISO find it difficult to serve in its capacity to manage the system if it had no visibility of what's on the transmission system?

A Now that one is a yes.²⁴

SCE witness Cabbell said that Edison tracks how the distribution constraints affect the transmission system. But surprisingly, SCE doesn’t share much information about the distribution system with ISO.

[I]nternally we know where the generation is being located and where it's being projected to be interconnected. So we have that information.

Q But you don't give that information to ISO?

A ISO would have it for the transmission system because they are actually

²² EH, Vol. 5, p. 819

²³ Ibid, p. 821.

²⁴ EH Vol. 3, p. 532.

part of the process for generation interconnection.

Q Sure. But I'm talking the resources that are connected to your distribution system instead of the transmission system.

A No. Since they are not the system operator of the distribution system, we don't provide that information to them.²⁵

When we asked if it would be useful to have data on preferred resources compiled by substation, Cabbell agreed: "It would probably be a refinement to the forecast."²⁶

As discussed further in section VI. A. below, preferred resources energy development is focusing more and more on local areas, and therefore, the Commission, ISO and the IOUs need to focus more on distribution systems. Data on the location of preferred resources needs to be available.

Location, location, location

Witnesses repeatedly highlighted the fact that there are *particular locations* within the Local Capacity Area that are far more effective than others for siting either generation or demand resources.²⁷ The difference between most and least effective locations is as much as 1000 MW. We discuss this further in terms of preferred resources, below.

What's the rush?

Several ISO and Edison witnesses were insistent that procurement should commence as soon as possible. Edison wanted the Commission to authorize a higher amount than it intended to move on right away. It didn't reveal or even estimate what amounts would be in those categories or why.

ISO's witness Sparks offered a good reason for hurrying — the impacts on sea life from Once-through Cooling power plants:

And also my understanding is the earlier, the better in terms of impacts that

²⁵ EH, Vol. 5, p. 822.

²⁶ EH, Vol. 5, p. 821.

²⁷ For example, Neal Millar stated, "We do recognize that even within an area there can be locational advantages, and because of that the generators would tend to have different effectiveness factors in helping support that area." EH Vol. 3 p. 514-515 □đ

they (the State Water Resources Board) are trying to mitigate with that policy.²⁸

Generally, however, the ISO and SCE witnesses seemed anxious to get procurement moving because they seemed to think it would be necessary to fill much if not all of the need with gas power plants.

Millar agreed, “some additional work between ourselves and the utilities on helping clarify those requirements would be helpful in advance of actually launching the RFO,” but his testimony made it clear that “clarification” would amount to explaining why nobody but gas plants would be allowed to play. His single-minded goal was “to drive that work to completion.”²⁹

Witnesses testified that it takes at least five years from Commission approval to build and begin to operate a combined cycle gas power plant — if OTC plants are repowered — possibly seven or more if plants are built on new sites. Concern was even expressed that the shutdown of OTC plants would be delayed unless gas plants were procured in haste.

ISO and SCE maintained that only gas plants could fill the LCR need

Although they found different ways to deliver the message, the main ISO and SCE witnesses all seemed pretty sure that only gas plants could fill the LCR need. ISO’s Neal Millar was blunt about it:

Mr. Rothleder and Mr. Sparks both pointed to in their testimony and in responses to questions that at this point natural-gas-fired generators were the one resource that we saw that clearly met the requirements.³⁰

In response to Commissioner Florio’s questions, Millar said ISO had found neither storage nor demand response technologies that are currently available (including air conditioner cycling) could meet the LCR need.³¹ Millar said they would leave the door ajar for the unexpected:

²⁸ 8-7-12 EH Transcript, Vol. 1, p. 113.

²⁹ Ibid, p. 358.

³⁰ EH Vol. 3, p. 357.

³¹ Ibid, p. 348.

...Mr. Rothleder pointed out, we are not aware of others at this time, and if those come forward then we are aware of them.

Commissioner Florio asked:

And would your tariffs and procedures allow for a party that was considering participating in an RFO to contact the ISO and ask questions to determine if they would qualify?

Millar responded that nothing would preclude ~~actually that, do I add that~~ we see ... viable competition.” Commissioner Florio asked:

[I]s there a way to specify in advance to the developer of a potential resource what criteria you would have to meet with some specificity so someone would know what they need to do to qualify? A...I would say that we at the ISO working with the utilities would have to help the utilities flesh out those requirements.³²

The witness established that up until this moment, *there have been no guidelines for LCR performance:*

They're not laid out in a protocol or tariff. To my knowledge, the best collection of or discussion of those parameters is really now in our testimony in this proceeding.³³

It seems surprising to us that this is the state of affairs at a sophisticated ISO — but apparently *California’s procurement system has been so fully insulated against preferred resources* that the “parameters,” “requirements,” or “characteristics” for meeting local capacity needs didn’t need to be specified, *because only gas plants were allowed to participate, and they all have these characteristics.*

³² Ibid, p. 353-354.

³³ Ibid, p. 356.

Precautionary principle asks us to avoid serious harms caused by gas power plants

We should be conscious of the harms caused by producing power with gas power plants, and fuel extraction methods such as fracking to feed those plants, just as the harm to marine life is now finally taken seriously, after a century of mayhem.

Over twenty-five years of expensive public relations touting “clean natural gas” may have trained the public and a lot of energy professionals to ignore the environmental damage caused by using gas power plants, but these are real nevertheless. There are reasons why building codes require hoods and venting of gas stoves — and these go beyond the carbon monoxide content. Burning methane produces particulates and other cancer-causing pollutants — and the pollution gets worse as the facility ages and the combustion process degrades.

This is especially important to consider in the LA Basin, which has the worst air quality in the nation, according to the S. Coast Air Quality District’s presentation at the CEC Electricity Infrastructure workshop, June 24, 2012.

The power plant is only the last step in a dirty, destructive process.

Extraction of oil *and gas* in the Gulf led to the BP spill and toxic “cleanup” that poisoned a very large area of that ocean and destroyed a huge percentage of sea creatures as well as the fishing industry, eliminating a significant portion of the local food supply and contaminating even more of it — including crops on land as well as seafood.

The latest rage – fracking — spreading through countless communities around the country and expanding also in California, is rendering local fresh water supplies unuseable for drinking, bathing, or gardening. The aggregated damage from fracking, occurring on a regular, ongoing basis, may rival the scale of the BP spill.

Routine drilling, transporting and storing gas inevitably allows some of it to leak into the atmosphere; the BP spill resulted in venting of an unknown amount of gas, as well as torching some of the gas and oil. *Methane is 30x worse than Carbon dioxide as a greenhouse gas.*

The precautionary principle asks us to be thinking of these damages, and talking about them, whenever people insist on making quick, easy decisions to use gas, short-circuiting the hard but essential work of converting to preferred resources.

B. Consideration Of Preferred Resources, Including Uncommitted Energy Efficiency, Demand Response, Combined Heat and Power, and Distributed Generation, In Determining Future LCR Needs

WEM’s proposal for a mix of preferred resources to be used to meet LCRs elicited a memorable response from CAISO’s witness, Neal Millar: □ð

A That's a very creative approach. I think if someone has the energy to try to develop something like that, it would certainly bear looking at. But you are talking about getting a very complicated basket of programs put together. EH 7-9-12, Vol. 3, p. 520, ll. 7-12.

Women’s Energy Matters recommended over a year ago for the Commission to convene an expedited process wherein people who do have that sort of energy get together and make a plan to develop preferred resources for use in the event of any contingency with the nuclear power plants. The hearings in this proceeding made a good beginning. Let’s start now to flesh it out.

While it might have been a little easier to do this in regards to “system” resources, the additional challenge of ensuring that some preferred resources can meet the most stringent requirements for addressing contingencies — while others would focus on local capacity — would ensure that the resulting plan can cover all eventualities.

Note: WEM believes that it’s unlikely that any significant need would remain, after the LCR is filled — except of course for replacing nuclear power plants, and SONWGS is also in a LCR).

The Commission must take time to determine whether there is any place for preferred resources in LCRs, otherwise they will probably languish on the sidelines for many more years.

WEM outlines its recommendations, below. We also discuss ISO and SCE’s barriers against preferred resources, which we find unreasonable.

What exactly are the attributes needed for LCRs?

The hearings included a long exchange between Commissioner Florio and ISO witness Neal Millar regarding what “attributes” were needed to fill LCRs.³⁴ They touched on

³⁴ EH Vol. 3, beginning on p. 345.

what would be necessary for preferred resources to supply something equivalent — and most importantly, how would that be measured and enforceable.

Many ISO and Edison witnesses wore down the clean resource advocates by popping up with a new barrier every time a party's cross-examination seemed to be making a little progress. Nowhere in the testimony were they listed systematically. We hope to work with other parties to gather them up for a first draft of a manual for LCR requirements.

We see that some of the barriers are embedded in language, rather than inherent to technology. For example, if all resources are required to be "ramping and dispatchable" (which are descriptions of gas resources) then EE and local solar are automatically eliminated. The Commission and ISO need to find different language to describe what they're looking for, in order to make various demand resources eligible.

Where's the sense of urgency for what's *really* needed?

ISO doesn't seem in a hurry to put LCR guidelines together — instead, it proposes to work behind the scenes with utilities. What they hope to accomplish this way is far from clear. Unfortunately, that's all that's happened up to now — and look where it's gotten us.

WEM believes there's an urgent need for guidelines; our Exhibit WEM X ISO-1, the ISO-New England Manual for Measurement and Verification of Demand Reduction Value from Demand Resources could be a time-saving starting point in developing our own manual. It would provide some basic guidelines for California to begin to catch up with other regions of the country, which already utilize demand side resources in procurement.

How SCE and ISO rejected preferred resources (but admitted that could change)

Demand Response

While Demand Response is ranked *second* in the loading order, after energy efficiency, we'll start with it because it seemed closest to getting a go-ahead, so it was more surprising to see it shot down.

Mr. Millar stated that demand response must be durable; meeting an hour's need isn't enough, you need to meet the whole summer's need.

A The next day could be just as bad as the day you're in. So a program that only allows you to call on it once a week or once every two weeks also doesn't provide the same durability as an actual generating resource...

A The programs that we have at this time wouldn't allow the number --

A -- of calls every time just in case today was the day the contingency occurred.³⁵

Mr. Millar failed to consider that different businesses could be interrupted on different days; one business doesn't necessarily have to cover the whole summer. (Enernoc's lawyer tried to get witnesses to see that greater incentives might make more frequent interruptions more attractive for businesses to consider. They missed the point that she meant the incentives *for the businesses*, so they failed to answer the question. It made sense to WEM however and we agree that higher DR incentives should be considered for more frequent calls.)

Commissioner Florio asked Mr. Millar whether air conditioner cycling programs met the criteria:

A We did take a look in the course of preparing for this summer with the outage of the San Onofre or SONGS, and in that process concluded that the air conditioning cycling program didn't respond quickly enough to meet the needs because there's also the requirement to identify the need. The operators have sev -- our control center has to communicate with Edison's control center. Edison has to then manage the loads directly. Because of the timeline to identify and take the different actions, the conclusion at that time was that these programs didn't respond quickly enough. I don't know if there are other limitations, but I have to admit, that was the program that we looked at the hardest as being or holding the highest potential of perhaps helping us with the situation. Where we would actually encourage whatever we can do to help these programs develop, but it does

³⁵ EH Vol, 3, p. 517.

require the customer to be willing to put their load into the program.³⁶

□đ

It's encouraging that Mr. Millar sees a potential for this type of program to work in the future. We don't see why it would take long to work out these kinks; DR should be ready to utilize by next summer — well in advance of the LCR need, but soon enough to participate in replacement resources for SONWGS.

SMUD had one solution that would solve the timing and communications problems Millar mentioned — a very effective low-tech residential air conditioner cycling program. Customers in the program agreed to the utility installing a simple switch on people's air conditioners that could be turned on and off from the utility (these were wired, not wireless systems). During very high demand, SMUD turned the switch off and on every 15 minutes and customers hardly noticed the difference. It also gave the utility the means to respond to emergencies.³⁷ If SCE had a simple system like that it could easily respond within 30 minutes to an emergency communication from ISO.

SMUD's □đ program □đ launched back in the 1990s when it replaced its nuclear power plant, Rancho Seco, with demand side resources – i.e. energy efficiency, demand response and solar.

Location data needed for preferred resources, same as supply-side

Sara Myers, representing Enernoc, established in cross examination of Mr. Minick that as of 2013 Demand Response programs are required to be locally dispatchable in order to receive RA credit.³⁸

However, the Commission has apparently failed to require demand response programs to reveal the location of their resources, by substation. This allows utilities to ignore them, and should be corrected as soon as possible. Mr. Minick confirmed that location must be addressed, in order to qualify for LCRs:

It is how do you divvy up this load management by substation, meaning if your programs were all in Palm Springs I would expect very little impact in south Orange County. If they were

³⁶ Ibid, p. 352-353, emphasis added.

³⁷ WEM phone conversation with SMUD's energy efficiency manager, 2001.

³⁸ Ibid, p. 971.

their timing, location, and a specific amount of demand and peak savings. There are no technical barriers here, it's a question of commitment.

The Commission should recognize that playtime is over for energy efficiency — and demand response. It's time to start treating them as grownup resources. They could meet the requirements of procurement, but only if the Commission expects them to fulfill their promises. Both the Commission and the administrators need to quit pretending about that. EE resources that participate in procurement also need to be grounded, connected to real locations and tracked by substations, instead of floating around somewhere in the utilities' territory.

Mr. Cushnie recognized that utilities could use certain types of EE for local capacity needs:

So certain types of programs I could imagine would be targeted to the LA Basin. So your example of air conditioners, you could maybe provide rebates to customers that are within the local area zone, but light bulbs, probably not a great idea because somebody could buy them in the LA Basin and drive them somewhere outside of the LA Basin and install them. So it would have to be a certain kind of program to work in the LA Basin.⁴²

Unfortunately EE would be disqualified by a technicality in SCE's solicitations. Mr. Cushnie's reply testimony stated:

If the Commission authorizes SCE to perform LCR procurement in its service territory, SCE proposes to use existing RA program rules to assess the effectiveness of proposed generation solutions for meeting the LCR need.⁴³

When we questioned him about this during the hearings, he acknowledged that EE doesn't allow EE to be designated Net Qualifying Capacity (NQC) *because it's not a supply side resource. We asked:*

Q Would there be a process for an energy efficiency developer to prove that they had the equivalent characteristics as an

⁴² EH, Vol. 4, p. 689.

⁴³ Exh. SCE-2, Reply Testimony, p. 5.

NQC facility?

A I think this would require a lot of thought. The way we've traditionally looked at energy efficiency is that energy efficiency reduces the load. And when you reduce the load, you reduce the system RA requirement and potentially the local RA requirement. And so energy efficiency is effective in meeting requirements. It's doing it by reducing the requirement, not like a supply-side resource which meets the requirement.

He still had trouble envisioning how DR and EE could be “sufficient to actually reduce the LCR need.”⁴⁴ WEM understands that procurement personnel who are used to working with great big supply-side resources are discombobulated by the notion that many tiny demand-side resources could replace those monsters — but 1 + 1 is 2, after all, and DR and EE could supply a substantial portion of the LCR need. Any “characteristics” that they might not be able to cover (such as inertia), could be supplemented by other preferred resources, including grid support technologies.

In response to WEM’s questions, Mr. Millar reluctantly acknowledged that the status of uncommitted EE and future generation are similar in regards to funding:

A I think the uncommitted energy efficiency programs are uncommitted and the generation has not yet been committed.⁴⁵

Of course, a generation resource’s funding status changes when it receives a PPA and becomes eligible for financing, which it recovers over time through the contract.

Similarly, energy efficiency could receive a portion of its funding from procurement dollars, as “capacity” resources.

We asked ISO witness Mr. Millar if energy efficiency is more “durable” than Demand Response. After all, DR involves a temporary interruption in load, while EE measures are permanent. He refused to speculate about “a program that doesn’t exist yet” — reverting to his objection about “uncommitted” EE.⁴⁶

⁴⁴ EH Vol. 4, pp. 690-691.

⁴⁵ EH Vol. 3, p. 507.

⁴⁶ EH Vol. 3, p. 516.

We suggested “what about scheduling energy efficiency this year to shave off the peak next summer and the summer after that?” First he responded that he was “not clear on the concept of scheduling energy efficiency.” But he finally agreed, **“there is a reduction in load.”**⁴⁷

He went on to question whether the effects would be at peak or throughout the year. However, when we asked specifically about energy efficiency programs “which would permanently reduce the peak with a better air conditioner or insulation... **[T]hey would target the peak; is that correct?”** He answered **“I would expect they would, yes.”**⁴⁸

We later asked a more specific question — which has particular significance in terms of replacement resources for SONWGS:

Q We talked about HVAC. If we had HVAC, a better air conditioner would reduce air conditioning load, okay, next summer, if we put in a better air conditioner all over Orange County?

A An energy efficiency program, yes.

Q And you agreed that that would reduce the load, it would shave the peak?

A It would reduce the load, yes.

Q Do we need to have a different term for that since it's not dispatchable and it's not ramping but it substitutes for resources that are dispatchable and ramping?

A I think that's a question that should go to the procurement people and how they would view a program. Should they be procuring overall energy efficiency programs in lieu of the actual resources?⁴⁹

It’s noteworthy that Mr. Millar didn’t have any objections to energy efficiency substituting for ramping and dispatchable resources from ISO’s point of view.

WEM’s demand reduction proposal, as distinguished from current “EE programs”

⁴⁷ Ibid, p. 517.

⁴⁸ Ibid., p. 518.

⁴⁹ EH Vol. 3, pp. 530-531.

The ISO and SCE agreed that energy efficiency has the capacity to reduce load, and that it could be targeted to the local capacity area, particularly those sub-areas where mitigation is most needed to address contingencies. However, they also agreed that current EE programs fail to target any place, so they are therefore only used to address “system-wide” need. It is true that utility EE programs, as currently conceived for 2013-14, continue to ignore the potential for targeted EE. WEM hopes that will change, but even if it doesn’t, EE can still be used for procurement.

This presents an opportunity for third parties and/or local jurisdictions to provide a new type of program, in which EE would target areas where resource procurement is needed. Accordingly, they might obtain part of their funds from procurement contracts for capacity — and/or energy. (Other funding might potentially come from financing.)⁵⁰

WEM’s Opening Testimony offered a proposal to initiate such a pilot Procurement Demand Reduction program as soon as possible, to address the SONWGS outage:

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.⁵¹

EE measures that address peak energy use would be most helpful, such as better air conditioning, evaporative coolers, insulation, white roofs. Tree-planting would also be helpful for long-term savings.⁵²

Perhaps it is fortunate that utilities have done very little work in these areas for several decades; great potential therefore remains. (The latest potential study underlying the forecast and therefore ISO’s sensitivity analysis, Exh. ISO-9 excluded many of these measures when it excluded the Big Bold EE Strategies (BBEES)⁵³ and also excluded

⁵⁰ WEM’s testimony in this proceeding and the previous LTPP presented proposals for “Demand Reduction” EE programs that would be separate from existing energy efficiency programs.

⁵¹ Exh. WEM-1, p. 9.

⁵² Lighting and other less weather-sensitive measures in commercial settings with high daytime use would also be useful.

⁵³ Exh. ISO-11, p. 5.

financing programs, which significantly low-balled the EE potential which EE programs are expected to fill. This leaves additional potential for other EE developers.)

A lot of time is being spent in the LTPP trying to cross-reference procurement with the intricacies of the Energy Commission’s “Incremental Energy Efficiency,” Itron and Navigant’s “potential” modeling, and the CPUC’s Evaluation, Measurement & Verification (EM&V).

While WEM is familiar than most with the byzantine worlds, we feel that going down those rabbit holes tends to *obscure, rather than elucidate* how to use EE in procurement.

The LTPP should consider WEM’s proposed method of acquiring additional energy efficiency above and beyond the EE resulting from programs approved in the Commission’s EE proceedings, or the Codes & Standards work of the CEC and federal government.

We recommend that the Commission and CAISO view this as a *new product in the California market*. There are many things that differentiate it from the existing energy efficiency products and programs:

- It would be competitively bid in procurement solicitations, such as the demand-side auctions WEM proposes in section V -A, below
- It could even be considered a *supply-side product, in the same way that some DR and some CHP is considered “supply-side;”* in which case it could bid alongside other supply-side resources, and winning bidders would receive contracts equivalent to PPAs;
- It would have to ensure that the product is delivered where, when, and in the quantities specified in the contract.

These products could be produced by independent EE developers; alternatively, they could be administered by non-EE departments of the utility, for example the distribution organization.⁵⁴ They would bid into procurement auctions and solicitations as described in Section V-A, below.

⁵⁴ WEM has videotaped a Con-Edison program that saves energy block-by-block in the 5 boroughs of New York City to address contingencies and defer other work on their distribution system. See http://www.womensenergymatters.org/video/Highlights/pgvideo_brightIdeas.htm

WEM's proposed mix of preferred resources for the LCR need would reduce costs while maintaining and enhancing local reliability

Data requirements for preferred resources

There's no need to wait for the Smart Grid to materialize.⁵⁵ Location data on Demand Response, Distributed Generation, CHP, storage, and small renewables also exists already in utilities' files. It just needs to be compiled in a useful format, aggregated, and cross-referenced to transmission/ distribution substations. Robust data on energy efficiency installations, and their locations, already exists in the EM&V data, and needs to be similarly compiled.

WEM's testimony in this proceeding and R1005006 called for the Commission to order utilities to develop these databases.

They would provide much-needed visibility to the CAISO, which currently lacks visibility of anything attached to distribution systems — which encompasses pretty much all preferred resources except large-scale renewables.⁵⁶

A mix of preferred resources, with efficiency, could fill the LCR need at less than gas. Let's take a look at costs. Specific cost data for various resources was missing from ISO and utility testimony, although they asserted that they were seeking the “least cost” options. Mr. Cushnie's proposed economic analysis of preferred resources was put off into the distant future.

WEM believes that using gas plants to replace OTC could be more expensive than preferred resources. Here's why:

Cost of gas power plants

⁵⁵ Smart grid upgrades, if and when they are implemented, would potentially allow utilities to track what's happening in each customer's home, and provide aggregated data that would prove useful for transmission/ distribution planners. Currently, the Smart Grid implementation has been on a slow track.

⁵⁶ Scott Murtishaw, advisor to Pres. Peevey, writes often to the Sierra Club Bay Chapter Energy Committee list. He recently described how easy it is to create databases: “The only complexity introduced by cap and trade compared to carbon taxing is the need to create a database that tracks the ownership of each allowance. That's it. And this is not a particularly challenging undertaking-- the Acid Rain allowance database, the NOx Budget Program database, REC databases, and even stock and mutual fund ownership databases all function perfectly well at tracking virtual ownership rights.” Excerpt from 9-17-12 email from Scott Murtishaw.

Mr. Minick noted that natural gas is not the least cost resource, even though natural gas is at an all-time low compared to just a few years ago:

If you are looking at the variable costs of producing electrical energy, hydro and even wind as a fueled source are cheaper than natural gas.⁵⁷

CEC studies show that a new natural gas combined cycle base load plant is expected to cost about 8 to 12 cents/kWh over a 20 year lifecycle, while a peaking natural gas plant cost of electricity is estimated by the CEC to average about 84 cents/kWh. These are for merchant owned plants built in 2009 selling electricity to utilities through power purchase agreements. By 2018, the cost of energy for a new natural gas plant is forecast to be even higher. There is no reasonable price for solar PV, at any scale including residential, that would not be much less expensive than a new natural gas peaker.

The Commission should also consider the possibility that natural gas prices could spike. This seems unlikely because of the extremely low costs right now and the expansion of fracking, but sudden gas spikes have happened before and could occur again. We are seeing news reports that the low price right now is beneath the cost of production for traditional wells (cost is about 8¢ as opposed to the price at 2¢), and there is less drilling as a result. A growing fury over the environmental damage from fracking could result in environmental controls that could also increase gas prices.

Using more solar energy reduces the peak, so there is less need, overall.

CA system-wide load would be reduced 6% in the Environmental scenario compared to the “all-gas” scenario, according to ED Slides 33 and 35, presented in the June 4, 2012 Workshop (in Track 2). This is because the large amounts of solar energy in the scenario shave off the highest current peak, which is in mid-afternoon. The change is so dramatic that the peak shifts to hours with lower load.

(Note: We’re using this reference only to confirm that use of solar PV reduces the peak compared to a gas-only scenario — not that Track 2 scenarios are fully applicable to the W. LA Basin.) Of course, the Environmental scenario emphasizes large-scale renewables, including “supply-side” solar PV and solar thermal out in the

⁵⁷ EH Vo. 6, p. 1021.

desert, which might not be available due to transmission constraints. By contrast with the “Environmental” case, WEM’s proposed LCR resource mix emphasizes rooftop solar, some of it located in the particular locations that are optimally effective — i.e. near where the OTC resources are closing down, along the coast.

An SCE witness tried to divert interest in the rooftop solar option by warning that solar resources are diminished by as much as 20% along the coast. However, he said that this has not deterred the local residents who are seeking to reduce their bills.

Breaking news: Local solar is already cheaper than large-scale desert solar⁵⁸

The Ivanpah website reports a total cost of \$2.2 billion for a 392 MW project, which equals \$5.61 per watt.⁵⁹

Of course, that does not count the need for transmission lines to deliver the energy. The Ivanpah transmission project is designed to carry 1400 MW, at a cost of approximately \$500 million, or \$0.35 per watt.⁶⁰

Transmission plus project capacity cost is $\$5.61 + \$0.35 = \$5.96/\text{Watt}$.

New active applications in 2012 for residential rooftop solar in the California Solar Initiative costs an average of \$6.30 per watt-AC for the year to date, *but this decreases to \$5.77 per watt-AC if you only consider September applications*. So at this point small residential rooftop solar in California is now becoming cheaper than the large utility scale Ivanpah project.

This does not consider the fact the Californians grossly overpay for rooftop solar—in Germany the cost per watt for rooftop solar up to 100 kilowatts is reported at 1.70 Euro per watt-dc (about \$2.50 per watt-ac—or half of what we pay).⁶¹

Of course not all large solar projects are as expensive as Ivanpah, but the rather thin financial case for large scale solar only seems plausible because of policies in California that inflate the cost of rooftop solar.

⁵⁸ An energy systems expert who closely follows solar costs offered this up-to-date analysis. WEM recognizes that the Commission can only use this information as a general indication of something to consider, rather than relying on these specific numbers which would need to be submitted in testimony and reviewed in hearings. WEM intends to do this in Track 2.

⁵⁹ <http://ivanpahsolar.com/about>

⁶⁰

[http://www3.sce.com/sscc/law/dis/dbattach8.nsf/0/85696D7777C3A5688257639007FC7B0/\\$FILE/A.09-05-027_EITP+-+SCE-1+EITP+Testimony.pdf](http://www3.sce.com/sscc/law/dis/dbattach8.nsf/0/85696D7777C3A5688257639007FC7B0/$FILE/A.09-05-027_EITP+-+SCE-1+EITP+Testimony.pdf)

⁶¹ http://www.solarwirtschaft.de/fileadmin/media/Grafiken/pdf/BSW_Preisindex_120815.pdf

Energy efficiency would reduce costs even more; set Cinderella free!

In ISO’s sensitivity analysis, we note that the “environmental” scenario increases all but one of the preferred resources. Who doesn’t get to go to the ball? Energy efficiency. The most versatile, least expensive resource. The one that’s forced to do the dirtiest work — lining the pockets of investor-owned utility execs and shareholders in a futile effort to reduce their conflict of interest with environmental programs; and bribing everyone in sight to kill their competition: Community Choice — the opportunity for whole communities to *go green together*.⁶²

Currently, Energy Efficiency is mostly free in terms of the procurement entity

Most of the costs of EE measures and services are covered by a mix of other people’s money — primarily surcharges on ratepayer bills augmented by ratepayers’ personal dollars (i.e. requiring no financing costs for utilities, unlike other procurement). There are also a number of financing options, such as a utility-run pool of ratepayer surcharge funds for “on-bill financing” that is continuously replenished by customer payments, or outside financing entities.

EE - everywhere and nowhere? Or targeted where it’s needed?

Colin Cushnie gave a presentation at the Storage/LTPP Workshop September 7th, focusing on his Track 1 proposal for a new “preferred” method for procuring resources (see discussion below).

In the Q/A period, the undersigned asked about the statement in his talk that energy efficiency was assumed to be spread all over the territory but you couldn’t count on it being where you needed it. I pointed out that utilities already know the addresses where EE is being installed, and could keep an inventory of the location of those installations in relation to substations. Then I asked whether Edison would allow bidding in their RFOs for EE targeted to particular locations?

⁶² We will discuss Community Choice more in a later section. Here, it’s appropriate to note that the non profit, transparent, publicly-owned and operated Community Choice program in Marin Co. has succeeded in providing 50% renewable energy at rates comparable to PG&E, which only provides 20%.

He said, “Yes, they would – but not right now,” since you couldn’t schedule EE work so far in advance. He said EE would be allowed to bid later, in 2017 or 2018. WEM is not willing for this to wait until 2017.

Additional EE should be targeted to reduce load in specific locations, NOW .
When CA finally begins to target EE to reduce specific loads, it could be extraordinarily effective and incredibly cheap. Procurement funds could be used to fund part or all of it.

“Edison is not in the business of helping third-party providers reduce the demand-side load.”

Testimony in these hearings reveals fundamental problems in the attitude of Edison’s management and procurement dept. towards promoting the suite of demand side programs (EE, demand response and distributed generation) and coordinating multiple parties to execute them.

In cross-examination concerning WEM’s proposal for a mix of demand side resources to participate in the LCR, SCE witness Cushnie stated:

Edison is not in the business of helping third-party providers reduce the demand-side load. That’s just not the business model that we operate under.⁶³

□ ð

Mr. Cushnie is the Director of the Energy Planning Division in SCE’s Energy Supply and Management Department: “My organization’s responsibilities include ... contract and solicitation analysis and valuation, portfolio analysis and risk management...”⁶⁴ One would think he’d knowledgeable about Edison’s business model.

Despite Edison’s dire warnings of grid emergencies this summer, due to the absence of both San Onofre reactors, Mr. Cushnie said he was not aware of *any* money from Edison’s 2012 EE funds being targeted to reduce the need for that power, *even though Edison had over \$600 MILLION dollars left in its EE coffers as of January 31, 2012, according to their monthly reports to the Commission.*⁶⁵

C. Appropriate Assumptions Concerning Retirement of OTC Generation

⁶³ EH □ ð Vol. □ ð 4, □ ð p. □ ð 701.

⁶⁴ Exh. SCE-1, Appendix C, p. 3 . □ ð

⁶⁵ <http://cega.cpuc.ca.gov/>

Why did SCE pretend it doesn't own Huntington Beach Units 3 and 4?

During the hearings, SCE's attorney interrupted our questioning of ISO witness Sparks, to insist that Edison doesn't own Huntington Beach Units 3 and 4:

Q This is my last question. Does ISO get a second opinion when a utility provides cost estimates for its own resources versus resources offered by other parties? An example would be using Huntington Beach instead of using a mix of energy efficiency demand response distributed generation that could be built by other parties?

MS. SCHMID-FRAZEE: Your Honor I, think there is assumption in there that Edison owns Huntington Beach. We do not. It is owned by AES Southland.

MS. GEORGE: I'm sorry, that is mistaken. Would you check on that?
(Laughter)

ALJ GAMSON: Hold on.

MS. GEORGE: It is operated by AES. It is owned by Edison.

MS. SCHMID-FRAZEE: No, we got rid of that plant.

MS. GEORGE: Then you bought it back.

MS. SCHMID-FRAZEE: No, we did not.

MS. GEORGE: I got the documents to show it, excuse me.⁶⁶

During WEM's cross-examination of Mr. Hunt, Ms. Schmid-Frazees offered a clarification, stating that Mr. Hunt could discuss the ownership. We introduced WEM-X-SCE-2, a Notice of Receipt for Request for Ownership Change of Huntington Beach Generating Station 3 and 4, from AES to Edison Mission Huntington Beach.

Mr. Hunt confirmed the change of ownership, but stressed that the facility was leased back to AES. He quoted from Edison Mission Energy's Form 10K report to the SEC for 2011:

In May 2011 EME purchased through wholly-owned subsidiaries select

⁶⁶ 8-8-12 EH Vol. 2, p. 257-258.

equipment at AES Southland Funding L.L.C. and its affiliate's, AES's, Huntington Beach facilities and leased such equipment back to an AES affiliate until its planned decommissioning at the end of 2012 for which AES retained the ARO. And ARO stands for asset retirement obligation.⁶⁷

□ ð

Recently, Edison confirmed that Huntington Beach Units 3 and 4 would again be shut down, to allow its air credits to be transferred to the Walnut Creek Energy Center, which opens up this fall.

When the Commission finally opens its investigation of the SONWGS outage later this year, it should review the use of these HB facilities and determine whether Edison was given a special deal that goes against affiliate rules.

D. Transmission And Other Means Of Mitigation

The need for grid support was often discussed in the context of the SONWGS outage. One of the problems is that the level of imports to the LA Basin is dependent on electrical stability, which SONWGS can no longer provide.

However, Edison recently announced that it plans to use Huntington Beach Units 3 and 4 as synchronous condensers, after the plant's air credits are transferred to Walnut Creek Energy Center, so it would still be able to mitigate the ongoing SONWGS outage.

Voltage problems disappear when load shrinks

Transmission planners emphasized that there is a need for various kinds of voltage support when the amount of generation is reduced, though there were exceptions to that rule. *One is that the voltage problems go away when load shrinks to the same degree as the generation.*

The transmission fix that made things worse

⁶⁷ 8-13-12 EH Vol. 5, pp. 861-862.

Several witnesses testified that there is a need to rerun tests to determine the impact of any addition to the system. They warned that the result may not be as expected.

An ISO witness described a recent transmission fix that *increased* the need in the W. LA Basin by over 200 MW. The Commission should work with ISO to determine whether this “fix” serves some other important purpose; if not it should be disconnected.

The 2013 Draft LCT study listed it as one of three new projects that were modeled:

Major new projects modeled:

1. 3 new resources have been modeled
2. Huntington Beach #3 and #4 have been retired
3. Del Amo – Ellis 230 kV line loops into Barre 230 kV substation
4. Recalibrate arming level for Santiago SPS⁶⁸

The 2013 LCT study was dated April 9, 2012 — *after* the OTC study, which was approved with the 2011-12 Transmission Plan in February, 2012.

III. DETERMINATION OF LCR NEED SPECIFIC TO LA BASIN AND BIG CREEK/VENTURA AREA

A. LA Basin

We discussed the needs for the LA Basin in other parts of this document so we will not repeat that here.

B. Big Creek/Ventura Area

IV. PROCUREMENT OF LCR RESOURCES AND INCORPORATION OF THE PREFERRED LOADING ORDER IN LCR PROCUREMENT

A. Incorporation Of The Preferred Loading Order In LCR Procurement

ISO’s Neal Millar had little doubt that the “characteristics” needed for LCR procurement would keep preferred resources on the sidelines. In his exchange with Commissioner Florio he let on that he would rather not have to put them all in writing and seek approval prior to an RFO — unless there’s a serious risk of litigation:

Whether those requirements needed pre-approval before an actual RFO process was commenced or if it was addressed after the fact when people responded, I think that's an issue that we have to consider as an industry

⁶⁸ Exh. ISO-18, 2013 LCT, p. 76.

of what's the most effective way to initiate that process and to make sure that our criteria are clear in advance and don't get caught up, I'd say, in unnecessary challenges after the fact. If there's a risk of that, then perhaps the criteria need to be established beforehand.

It's often difficult, though, when we're dealing with the theoretical of what are the complete set of characteristics that the demand response program would provide. Sometimes it's easier to actually consider all those issues as you move through a real process as opposed to discussing it in theory before starting the RFO.⁶⁹

He told Commissioner Florio he would prefer to work with the utility and provide guidance to potential developers before the RFO. While that might be reasonable in a fair auction process, it could also be used to knock out potential bidders, behind closed doors. Meanwhile, the rest of the market would be kept in the dark, off-balance, unwilling to waste time and money preparing proposals in the absence of clear criteria.

It is problematic that the most important thing to ISO and SCE witnesses was to keep the (gas plant) approvals moving as quickly as possible, while postponing any consideration of preferred resources indefinitely. Mr. Millar didn't want Commission processes slowing them down:

We do have so many things changing on the transmission and generation fleet at the same time. We're always cautious against any one process waiting until someone else has gotten all the answers worked out.⁷⁰

WEM has great respect for the ISO's desire to keep the chance of disruption of its system to a minimum. We understand the advantage of preventing rash, ill-considered experimentation. But not all change is rash or ill-considered. Sometimes the biggest danger is to stay stuck in the past, especially now, with sea levels rising and the Arctic ice melting under the polar bears' feet.

⁶⁹ 8-9-12 EH Vol. 3, p. 354.

⁷⁰ 8-9-12 EH Vol. 3, p. 355.

Overestimating the LCR need and filling it with only gas power plants would commit California to another 30 to 75 years of over-dependency on fossil fuels.⁷¹

□ ð

B. Other Commission Policies and Consideration Affecting LCR Procurement □ ð
Potential disincentive to site power plants in optimal locations?

The Commission should note that there could be a disincentive to site power plants in optimal locations — if no similar plant was built closer, the generator would have to run at a higher capacity. This would especially benefit Utility Owned Generation. Whatever the reason, Walnut Creek Energy Center appears to be sited in quite a bit less than an optimal location.

Edison testimony stressed that it's difficult to site new power resources in such an urbanized area as LA, with high land values and restrictions on air pollution, which drive permit costs sky-high. However, the air permitting issues affects gas plants but not preferred resources.

□ ð

C. If A Need Is Determined, How The Commission Should Direct LCR Need To Be Met

WEM's proposed auction process for preferred resources to meet LCR needs

WEM proposes for the Commission to direct the utility (or whoever is conducting the procurement, if Edison chooses not to do it or is unable to procure for financial reasons) to first hold a solicitation that allows all demand-side resources and other preferred resources to bid to meet the LCR need. We recommend an auction format, such as the demand-side auctions that ISOs are conducting in New England, to decrease the potential for sweetheart deals. An entity other than SCE could conduct the auction.

Developers would have an opportunity prior to bidding to determine whether their resources can meet the needs, by attending a bidders conference and consulting a manual listing all the requirements for each demand-side resource and other preferred resources to meet particular needs. As a starting point for this manual, the Commission could use

⁷¹ The Hunters Point Power Plant in San Francisco continued to operate for 75 years.

Exhibit WEM-X-ISO-2, ISO-New England Manual for Measurement and Verification of Demand Reduction Value from Demand Resources.

There should also be a map posted online which indicates the most effective areas for demand reduction or other measures to meet specific needs. Mr. Cushnie agreed that SCE could put forward a solicitation that specified that they needed resources in particular parts of the LA Basin.⁷²

SCE currently conducts a variety of solicitations, but *none of them provide for energy efficiency resources to bid*.⁷³ WEM recommends an auction process for preferred resources to meet the LCR need, which *would* include energy efficiency. These EE resources could be from the existing EE programs, or they could be demand reduction efforts by EE developers that are not part of the current EE portfolios.

Standard contract language should be developed would include appropriate accountability requirements for each type of resource.

A full roster of preferred resources should be included — energy efficiency, demand response, distributed generation, combined heat & power, small renewables and storage and grid support mechanisms. The Commission might determine that there would be a need for two auctions — one for demand-side and one for supply side preferred resources. The capacity payment would be the same, although there might be a premium for resources that can meet more than one type of need (i.e. local capacity, grid contingencies and/or renewables integration).

The first auction should take place as soon as possible. There is no need to wait for 2017 to start saving energy, as Mr. Cushnie proposed (see a discussion of his proposal below). By then, the need would be eliminated by gas-fired power plant approvals, which would have already occurred. The time to conduct preferred resource solicitations is *before* considering any gas plants, not afterwards.

Preferred resources are generally small scale. They can begin to come online quickly, but in order to develop the full 1800 to 3000 MW needed by 2021, an extended rollout would be appropriate, since the providers are also smaller companies that need more time to do larger jobs.

⁷² EH Vol. 4, p. 684.

⁷³ EH Vol. 4, p. 686.

To the extent that some of the bidders would be administrators of EE programs currently in the portfolios, their contracts could be handled in three-year segments and potentially extended as the programs are rolled over into the next cycle.⁷⁴ Alternatively, these programs would bid resources in 3-year chunks, and bid again in a later auction for later years. Other bidders could offer to conduct their work over a longer period.

We recognize that it might take the Commission several months, working with ISO and other parties, to come up with the initial draft of a manual for “characteristics” required for LCR resources. Developers of the manual should consider three types or levels of requirements – one for plain vanilla local capacity, one for grid contingencies, and one for renewables integration. (The local capacity could be further specified by peak times in different neighborhoods — e.g. mid-day or mid-afternoon for commercial areas, and early evening peak for residential.)

A resource could bid for only one type, or all three, and that would be considered in the criteria for choosing the winners, and/or in the capacity premium payment.

WEM recommends that the auction design and the criteria for winners should also be created or at least vetted through a public process at the Commission. It should be an ongoing process, to provide for an early smaller-scale auction to be followed by others on an annual basis, with an opportunity for tweaking the process between auctions as necessary.

Note: WEM also recommends that the Commission order a preferred resource solicitation to be held this winter, even before the auction mechanism is completed, in order to utilize preferred resources to replace SONWGS next summer.

SCE’s proposal for developing a procurement mix that includes preferred resources

SCE Witness, Colin Cushnie proposed for SCE to be left alone to do an economic analysis of preferred resources at some unspecified future date. On that basis the utility would decide — without review or input by CPUC or anyone else — whether any

⁷⁴ Some of the ISO-NE EE bidders are the administrators of EE programs in their states. They use the capacity payments to augment or partially replace the EE surcharges. WEM email exchange with Eric Winkler, PhD, FCM (Forward Capacity Market) and Tariff Administration for ISO-New England.

preferred resources are sufficiently cost-effective to be included in its procurement solicitations.

This already highly flawed proposition lost even more credibility when Mr. Minick told us that SCE has never done such an analysis before, and did not do one for this proceeding:

Q You mentioned to the Vote Solar question that we will come up with a method to compare preferred resources with other resources.

A That was in response to what Mr. Cushnie said we would probably do. And again, we haven't developed this methodology yet... 8-14-12 EH Vol. 6, pp. 1015-16.

Mr. Minick felt that “it would only be reasonable and prudent to assess all resources and see which ones are the best fit, the best cost, the best benefits for our system.” And yet, he never felt the need for such a methodology before this — because preferred resources never entered into the mix:

A Up to now we have had a methodology for reviewing the cost effectiveness of renewables and different generation technologies, meaning fossil, nuclear, hydro, those kinds of things.

He acknowledged that relevant data on preferred resources is already available:

The preferred resources that I think you might be referring to, demand side management and energy efficiency, has its own proceeding. And typically the cost effectiveness and the value of those programs is argued in those proceedings before the PUC.

But rather than utilize that data he said “So it's been sort of out of my hands to make an across the board analysis of different resource types.”⁷⁵

The problem appears to be that Mr. Minick is for some reason unwilling to work with data generated in “those proceedings” — even though SCE lawyers are in fact making many of the arguments over cost-effectiveness and value, in those proceedings.

⁷⁵ 8-14-12 EH Vol. 6, p. 1016.

Mr. Cushnie shares Mr. Minick's antipathy to working in a public process. He was adamant about developing criteria for preferred resources in the backroom at SCE:

[I]f you are willing to allow Edison to do the analysis with sufficient flexibility, we can then look at various permutations of resource mixes including preferred resources to see if we can come up with a least-cost solution that does capture preferred resources.

Q Wouldn't it be more useful to have a California-wide discussion about what is needed in this situation rather than having each utility do these studies themselves?

A I think California has a lot of discussions on these things and that the utility planners are very aware of what's out there. And a large setting like that is not conducive to ultimately driving towards a set of solicitation or procurement requirements. ... If folks want, you know, a large consensus team to be brought together, I might have to recommend someone else to do the procurement because it's just not a very practical use of Edison's resources to try to manage that.⁷⁶

It became clear over the course of hearings that SCE intends to conduct this entire process in secret — from deciding how much to procure and when, to preparing new criteria and methodology for comparing resources, to performing an “economic analysis” of [some but not other?] preferred resources, to setting the solicitation requirements and selection criteria — and right on through the solicitation and selection (that last step would include the Procurement Review Group, but they'd be sworn to secrecy).

The first chance anyone would have to discuss any of this would be when SCE brings its winning candidates to the Commission for rubber-stamping. Of course he promised:

“And any procurement that we do would have to demon -- that we propose to do would clearly demonstrate that we've complied with the preferred loading order in our

⁷⁶ 8-10-12 EH Vol. 4, pp. 697-698, emphasis added.

applications that we submit to the Commission.⁷⁷

He proposed only one exception to this wall of secrecy —

Having said that, you know, the utilities don't operate in a vacuum, and their proposals do get, at least in the case of Edison, we do share drafts of those with the market participants to get feedback from them [i.e. on solicitation or procurement requirements].⁷⁸

Aaaahhh! So Mr. Cushnie does confide in someone. But would “market participants” be the most appropriate choices to share SCE’s secrets? And *which* market participants would be invited to the séance? Might they not have a conflict of interest against procurement requirements that open the field to more players?

One doesn’t get the sense that SCE plans to rent a big auditorium and announce on all the radio stations that it’s having a meeting to discuss what kinds of requirements it should set for energy purchases and wants feedback from energy efficiency contractors, demand response companies, rooftop solar installers, storage, CHP and small renewables developers, as well as large solar, wind, geothermal, biomass and biogas companies, and corporations involved in gas and nuclear fuels and power plant development, plus associated manufacturers and consultants...

No, for that sort of a meeting, SCE might as well just bring its ideas to the Commission and let the riffraff join in the discussion — intervenors, low-income advocates, city/county sustainability coordinators, reporters, academics, ED staff, maybe an ALJ or Commissioner, etc. etc.

The Commission could focus things a bit more, by having workshops on different days for different technologies. For example, the recent storage workshops.

If SCE does NOT plan to reach out to the whole market — then it’s just another sweetheart deal with the same old conventional resource pals. We believe that Mr. Cushnie’s plan, as presently constituted, should be reworked for public input or discarded.

⁷⁷ Ibid, pp. 697-698.

⁷⁸ Ibid, p. 698.

D. Appropriate Method(s) of Procurement**E. Timing Of Procurement****V. INCORPORATION OF FLEXIBLE CAPACITY ATTRIBUTES IN LCR PROCUREMENT****A. If A Need Is Determined, Should Flexible Capacity Attributes Be Incorporated Into Procurement****B. Additional Rules, Not Already Covered By Resource Adequacy (RA) Rules, To Govern LCR Procurement**

See earlier discussion of the need for EE and other preferred resources to obtain a status equivalent to the NQC, if not an NQC itself.

VI. COST ALLOCATION MECHANISM (CAM)**A. Proposed Allocation Of Costs Of Needed LCR Resources**

Edison suggested that someone else should handle its procurement of LCR resources, unless it can pass through its costs to all ratepayers — including direct access, community choice and even municipal power customers served by CAISO.

This remarkable proposal raises the specter of the energy crisis, when utilities' credit ratings collapsed (due to skyrocketing natural gas prices, and related price spikes and manipulation by merchant generators and Enron, which Edison and PG&E could not recover from customers because their rates were frozen). At that time the Governor ordered the Dept. of Water Resources to take over purchasing power for the utilities.

B. Should CAM Be Modified At This Time?**DACC/AREM/MEA proposal**

The Direct Access Coalition, AReM and MEA made a counter-proposal to Edison's, for Direct Access providers and Community Choice Aggregators to be able to recover the costs of new generation capacity from all customers, including the utilities' customers, assuming that that capacity is available to everyone — essentially the mirror-image of the current CAM.

WEM continues to object to the CAM, which imposes utilities' choices on customers who have chosen other power providers in order to escape those choices. However, the CAM is now enshrined in law, SB695. If capacity costs are to be spread to

all customers, then the playing field should be leveled. Therefore, WEM supports this proposal.

Bundled customers could benefit from this change, because LSEs other than IOUs have on the whole been providing lower cost service, and they might also be able to offer more competitive new generation.

DACC/AREM/MEA also offered to take Edison up on its proposal for someone else to procure for bundled customers unless the utility is allowed to foist costs of LCR procurement on all entities served by CAISO. It proposed to use a CCA model to achieve this. WEM supports this proposal also.

We note that the CAM concept was based on the premise that the utilities were somehow more stable and dependable than other market players. However, Edison's current financial condition and PG&E's double bankruptcies in the early 2000s remind us of the similarities of these corporations with other market players. *California utilities were not protected by their parent companies — they were protected by the state*, while their parent companies protected their merchant generator subsidiaries so they could continue to play the markets in other states and countries. And of course, the municipal utilities provided the best protection for their customers during the crisis.

This indicates that the role of government is key to ensuring stability for ratepayers in a volatile period. Also, that regulation may be insufficient — government ownership is stronger.

The old IOU-monopoly is breaking down. Like it or not, competition was embraced, in California and across the country. One of the good things that came of it was the opportunity of Community Choice Aggregation (CCA), which allows local jurisdictions to provide energy services to their residents and businesses without the steep financial burden of purchasing distribution systems.

In addition to the cost-savings of CCAs' publicly-owned, nonprofit structure administration, their structure as public-private partnerships offers the benefits of working with more innovative private parties while protecting ratepayers from those entrepreneurial risks. They are also able to nurture local business development, producing jobs in the industry.

Marin Energy Authority is already providing rates comparable to PG&E's while at the same time offering more than twice the amount of renewable energy. This allows all the jurisdictions involved to meet their carbon reduction goals at *no cost to taxpayers*. Thus, CCAs enhance community prosperity as well as the environment.

The CCA model is quite flexible, providing for communities to exercise their priorities. One of the earliest prospective CCAs, the San Joaquin Valley Power Authority (SJVPA) sought a rate reduction for all customers. A number of other cities and counties that are currently pursuing CCAs are more interested in producing renewables. They view these as long-term investments that will eventually produce rate reductions, because these are durable facilities that will likely produce energy long after they are paid off, and they minimize fuel costs.

As currently designed, the CAM interferes with these goals, by forcing CCA customers to contribute to utility-chosen large-scale conventional technology instead of and in addition to their own capacity choices.

Additional CAM modifications to assist development of preferred resources

We are experiencing multiple major transitions in the energy world. Solar photovoltaics, wind, storage, certain efficiency and demand response measures, CHP and grid enhancements are “disruptive technologies” that have the potential to profoundly change the way energy is produced and consumed.

These technologies could and should be used to enhance local capacity and provide more grid stability, because they can be sited on or near load centers in local capacity areas.⁷⁹

Unfortunately, the current CAM drains money out of the system that could and should be invested in these and other forward-looking technologies, instead of old-fashioned remote central station facilities. Conventional power plants face a less certain future, both because of fossil fuel depletion, and also because they will likely lose the cost competition with disruptive technologies, possibly sooner rather than later. For example, as explained above, the cost of rooftop solar has already fallen below large desert solar.

⁷⁹ Wind farms are the possible exception, however it might make sense to build windmills on some OTC sites or coastal mountains, depending on the wind speeds, the distance from homes and businesses, and the outcomes of biological monitoring. Wind on offshore platforms is another possibility.

Some LSEs, such as Community Choice Aggregators, are choosing much cleaner energy than utilities, and are anxious to choose clean RA options as soon as the Commission approves them.

In addition to concerns about fossil fuels, current and prospective CCAs wish to contract with more appropriately-sized generation and demand-side facilities, preferably closer to the load. This provides savings on transmission costs (as well as reduced exposure to contingencies on the transmission system).

By contrast, investor-owned utilities' resistance to distributed generation and small renewables is notorious — the Commission has just spent a year fixing Rule 21 to prevent some of the barriers the IOUs have put up to interconnection. Utility resistance to fully utilizing demand-side resources in procurement is also obvious in this proceeding.

The CAM was originally designed to support construction of large central station resources, particularly natural gas power plants. It should be modified to be more *resource-neutral and size-neutral*. Or, even better, *to promote large-scale deployment of small-scale preferred resources, distributed generation, and efficiency*.

The Commission should ensure appropriate development of distribution systems

WEM believes the Commission should recognize that the utilities' future is uncertain, if they continue to hang onto obsolete technology. Their role may shrink to being wires companies, as in some other deregulated states.

For all these reasons, the Commission should pay more attention to ensuring that all ratepayers get their money's worth out of their payments for transmission and distribution. The Commission needs to tighten up its oversight in the area of distribution, in particular.

To the extent possible, the Commission should address distribution issues in the LTPP, and/or a new rulemaking dedicated to distribution issues, rather than individual utility rate cases. It should no longer tolerate utilities' failure to spend money appropriated from their customers to maintain and improve distribution. It should also take note of the ongoing broad-based furor over many aspects of smart meters, and direct

utilities to tend more to the aspects of “microgrid” development that don’t involve meters, for now.

For example, utilities should be developing databases showing the location and capabilities of energy efficiency, demand response and customer solar installations by substation, as WEM has requested. Telemetry for local solar and small renewables should be standard.

The Commission should place the highest priority on providing transparency on the utilities’ distribution systems — breaking down the utilities’ wall of secrecy around distribution, and their sense of impunity. *The development and use of preferred resources depends on this, because nearly all of these resources are located on distribution, and are therefore currently invisible to the ISO.*

C. Should Load Serving Entities (LSEs) Be Able To Opt Out Of CAM?

Yes. All providers are required to have Resource Adequacy. They should not be forced to pay for RA capacity choices that they oppose. Marin Energy Authority has been providing over 65% greenhouse-gas free energy to its customers, and is now serving a minimum of 50% renewable energy to all customers, or a 100% renewable “Deep Green” product for a small premium. CleanPowerSF plans 100% renewables for all customers.

The Commission must provide more non-fossil fuel options for Resource Adequacy to accommodate these environmental leaders, and must not force them to pay for conventional power plant projects chosen by other entities that do not share their values.

VII. OTHER ISSUES

A. SCE Capital Structure Proposal

B. Coordination of Overlapping Issues Between R.12-03-014 (LTPP), R.11-10-023 (RA), And A.11-05-023

C. SCE Statewide Cost Allocation Proposal

D. CAISO Backstop Procurement Authority To Avoid Violating Federal Reliability Requirements

E. Potential for Edison International's Poor Choices to Impact SCE

The Commission should consider the potential for the poor choices of Edison International to impact its utility subsidiary, SCE. It should be very concerned about the potential for Edison International to bleed the utility to try to keep its unregulated subsidiaries afloat, especially at a time when the utility has problems of its own.

As discussed in WEM Exhibit 1, our Opening Testimony, Edison Mission Energy invested heavily in coal. Coal power is currently being displaced by natural gas, which is priced at an all-time low, due to plentiful domestic supplies from fracking as well as traditional wells. Coal is also facing new environmental restrictions, which has driven up its costs.⁸⁰

While the Commission is primarily concerned with the utility's financial health. The reverse could also be an issue — for example, that SCE's decision to replace its steam generators with substantially different equipment that seriously malfunctioned, would have a negative impact on its parent company and/or sister subsidiaries. With problems on both sides of the company happening at once, the parent company's options would become very limited.

WEM questioned Mr. Hunt about Edison's credit ratings, which we entered into evidence as WEM-X-SCE-1. As of 6/29/12, S&P rated Edison Mission Energy as CCC/Negative, and its four other unregulated subsidiaries were similarly low. There has even been talk of bankruptcies on that side of the company.⁸¹

We asked Mr. Hunt if issues on the unregulated side of the company could create a problem that SCE will have to cope with? He

He went on to say,

However, the credit rating agencies have generally distinguished SCE quite significantly from the parent company and the other subsidiary.⁸³

⁸⁰ The Commission should recall that what comes around, goes around. While today's loser is coal, it could very well be natural gas in the not-so-distant future, as more and more people are demanding environmental restrictions on fracking, and a drop-off in conventional production (which cannot break even at current prices) could cause a price spike. Edison might not be able to hang onto its coal resources long enough for them to benefit from an increase in natural gas prices.

⁸¹

⁸² 8-13-12 EH Vol. 5, p. 854.

⁸³ Ibid.

SCE's rating by Standard & Poor's is BBB+, while Edison's is BBB-. He noted, "[T]here is what we call a two-notch difference. That is one of the largest differences between the utility and its parent that S&P has bestowed on any utility, electric utility and parent in the United States." Hunt said that difference has been in place since SCE exited from the financial crisis in 2004.⁸⁴

SCE's credit rating has not been downgraded until 2004. When asked if he expected a downgrade to the credit rating if the nuclear plant does not come back on line, Hunt said, "It's too early to tell." Similarly, the ratings agencies are probably waiting for the outcome of efforts to renegotiate the debt of the unregulated subsidiaries, before adjusting those ratings.

Potentially, the ratings for all sides of Edison could be reduced this fall, and at least some parts of the company could be in serious trouble. A downgrade in ratings would increase the company's borrowing costs, potentially affecting procurement costs, and ultimately increasing customers' rates.

The Commission should consider whether these rocky financial conditions are some of the reasons why SCE is reluctant to have the Commission order it to purchase any particular quantity of local capacity resources at this time, and suggested that someone else should handle its procurement unless it can recover all its costs from ratepayers.

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VIII. CONCLUSION

WEM asks the Commission to adopt our recommendations as put forth in Track 1 of this proceeding.

Dated: September 24, 2012

Respectfully Submitted,

/s/ Barbara George

Barbara George, Executive Director

⁸⁴ Ibid, pp. 854-855.

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