

**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 10-05-006
(Filed May 6, 2010)

**WOMEN'S ENERGY MATTERS
REPLY BRIEF IN TRACK II**

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SUMMARY OF RECOMMENDATIONS

Utilities assume interactions between Track 2 and Track 1 for some of their proposals.
Rather than bump WEM’s proposals completely into Track 1 (as recommended by utilities), we recommend a similar process for WEM’s proposals, which are designed for practical implementation in Track 2 procurement. Track 1 could provide any additional policy support and implementation detail needed. 6

Summarizing, WEM’s interrelated proposals recommend: 7

1. to better integrate the above-described preferred resources into the LTPP planning process by making them eligible to bid into RFOs, other solicitations and bilateral negotiations to the extent that they meet specific, appropriate criteria; 7
2. to recognize (i.e. count) all resources connected to the distribution system, instead of leaving them invisible; 7
3. to improve interconnection for small renewables; 7
4. to target the above-described preferred resources to particular areas of the grid in order to reduce the need for specific fossil fuel and nuclear resources that should be retired as soon as possible to comply with the state’s once-through-cooling (OTC) policy and improve air quality; 7
5. to forestall the use of dirtier, conventional resources as substitutes for when fossil fuel and nuclear resources are temporarily or permanently offline; 8
6. to ensure more just and reasonable rates while considering all of the above in terms of the loading order, reducing risks, and reducing GHG emissions and other environmental damage. 8

WEM recommends a ban on procurement of shale gas from “fracking” — either for short, medium or long-term. To that end, CPUC should deny PG&E’s proposal to reduce oversight which could potentially result in PG&E slipping in such resources as “renewable biomethane.” 14

WEM recommends that the Commission make sure that there is no potential for PG&E to double-charge CCAs and DAs for capacity that they are forced to procure under SB695 and D1105005. 15

WOMEN'S ENERGY MATTERS REPLY BRIEF IN TRACK II

Women's Energy Matters (WEM) appreciates this opportunity to submit this reply brief in Track II of the LTPP proceeding, pursuant to Rule 13.11 and the schedule set forth in the December 3, 2010 Scoping Memo and the revised schedule in the February 28, 2011 Ruling.

Rulemaking (R.) 10-05-006 defined the three tracks as follows:

(1) Track I will identify California Public Utilities Commission (CPUC)-jurisdictional needs for new resources to meet system or local resource adequacy and to consider authorization of IOU procurement to meet that need, including issues related to long-term renewables planning and need for replacement generation infrastructure to eliminate reliance on power plants using once-through-cooling (OTC).

(2) Track II will address the development and approval of individual IOU "bundled" procurement plans consistent with §454.5.

(3) Track III will consider rule and policy changes related to the procurement process not resolved in R.08-02-007, as outlined in greater detail below. OIR, p. 9.

Introduction: all of WEM's proposals are in-scope

PG&E and Edison failed in their attempt to strike WEM's testimony when ALJ Allen denied their Motion to Strike and accepted our Opening and Reply Testimony into the record — but they are still trying to prevent the Commission from considering the issues we raised.

In their opening briefs PG&E and Edison alleged that various parts of WEM's Testimony on nuclear and energy efficiency issues is "out-of-scope." PG&E sniffed that the OIR contains an "exhaustive list of issues that are specifically excluded from this proceeding include... energy efficiency, demand response, avoided cost and qualifying facility pricing, and RPS requirements."¹

In fact the OIR was much more nuanced than that:

LTPP Scoping Standard. The LTPP scoping standard is defined as follows:

¹ PG&E Opening Brief, p. 2, 37-38 ("shutting down nuclear power plants or significantly expanding energy efficiency programs regardless of cost effectiveness"), p. 28 (gas supply).

• Any procurement-related issue(s) not already considered in other procurement-related dockets in Table 1 below may be considered, subject to the following conditions. The issue(s) must:

- (1) Materially impact procurement policies, practices and/or procedures;
- (2) Be narrowly defined; and
- (3) Demonstrate consistency with one or more of the LTPP proceeding goals set forth in R.08-02-007.

Therefore, issues that do not meet this standard *are not* in the scope of this proceeding. OIR, p. 18 (R1005006), emphasis added.

All of our proposals are narrowly defined and directly relevant to the issues in Track II of this proceeding. Unlike several proposals of the utilities, WEM's proposals increase transparency, increase reliability, reduce risk to ratepayers, have a successful track record in other states or regions of California, produce more good jobs and place more value on the health and wellbeing of workers in this industry and all other workers; are likely to stabilize or reduce costs and rates, and to the extent that they are less familiar or somewhat complex, we offer a practical step-by-step path for implementing them.

We describe below why each of the issues WEM raised meet the OIR criteria for being in-scope.

Utilities assume interactions between Track 2 and Track 1 for some of their proposals. Rather than bump WEM's proposals completely into Track 1 (as recommended by utilities), we recommend a similar process for WEM's proposals, which are designed for practical implementation in Track 2 procurement. Track 1 could provide any additional policy support and implementation detail needed.

WEM's proposed Demand Reduction product

WEM's proposed Demand Reduction product, i.e. allowing energy efficiency to bid into procurement solicitations — has never been considered in any energy efficiency proceeding. It would certainly have a material impact on procurement policies, practices and procedures, and it is consistent with the LTPP goals set in R0802007, including the overarching goal and several specific goals:

We open this Rulemaking to continue our efforts to ensure a reliable and cost-effective electricity supply in California through integration and refinement of a comprehensive set of procurement policies, practices and procedures underlying long-term procurement plans (LTPPs)...[W]e intend to consider standardized

resource planning practices, assumptions and analytic techniques applied to LTPPs, ...methodologies to estimate firm capacity from demand-side resources, refinements to the bid evaluation process; and other LTPP implementation issues... All resource planning is to be done in the context of the Energy Action Plan II (EAP II). OIR, pp. 1-2 (R0802007).

We emphasized in our Testimony and Opening Brief that our energy efficiency Demand Reduction product is *separate* and distinct from the ratepayer-funded energy efficiency *programs* of the utilities. Payment for the Demand Reduction product is through procurement, along with supply-side resources — and payment is only for product that is delivered and functioning to specifications in the supplier’s contract.

Ratemaking for these “negawatts” should be addressed in Track 1.

WEM’s proposals to ensure procurement from demand, DG, and small renewables

WEM offered a series of interrelated proposals that seek to ensure that all distributed resources (demand reduction/energy efficiency (EE), demand response (DR), distributed generation (DG), combined heat and power (CHP)) and small renewables *can be and are utilized* for short and medium term procurement authorized in Track II of this proceeding.

These proposals also meet the above-described criteria and are in-scope, because they have either not been addressed in other proceedings (or have not been addressed as an interrelated group), and they address the same elements named above from R0802007.

Summarizing, WEM’s interrelated proposals recommend:

- 1. to better integrate the above-described preferred resources into the LTPP planning process by making them eligible to bid into RFOs, other solicitations and bilateral negotiations to the extent that they meet specific, appropriate criteria;**
 - 2. to recognize (i.e. count) all resources connected to the distribution system, instead of leaving them invisible;**
 - 3. to improve interconnection for small renewables;**
 - 4. to target the above-described preferred resources to particular areas of the grid in order to reduce the need for specific fossil fuel and nuclear resources that should be retired as soon as possible to comply with the state’s once-through-cooling (OTC) policy and improve air quality;**
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5. to forestall the use of dirtier, conventional resources as substitutes for when fossil fuel and nuclear resources are temporarily or permanently offline;
 6. to ensure more just and reasonable rates while considering all of the above in terms of the loading order, reducing risks, and reducing GHG emissions and other environmental damage.
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WEM's proposal to substitute preferred resources for nuclear power

Our proposal to replace nuclear power with the types of resources described above is also in-scope, contrary to PG&E's assertions. Again, this would have a material impact, has never been considered in another proceeding, and would address some of the same R0802007 categories enumerated above.

For a variety of reasons discussed further below, the Commission may order Investor Owned Utilities (IOU)s to quit procuring power from San Onofre, Diablo Canyon and Palo Verde nuclear power plants — in Track II of this proceeding.² Replacing the power from NPPs with preferred resources within the 5 to 10 year horizon of Track II is definitely within the scope.

WEM's proposal stops short of ordering "steel out of the ground" because we do not ask the Commission to order decommissioning and dismantling of the reactors in this proceeding. That would come later. The first step is to quit using nuclear power, which would eliminate the reason utilities keep the nuclear plants running.³

WEM's proposal addresses the proposed IOU bundled procurement plans by recommending modifications to their plans in order to replace nuclear power with more energy efficiency, load management programs, other distributed resources, and renewable generation. These modifications can be made well within the time frame provided for Track II in the OIR.

The total load necessary to be met can first be reduced by many energy efficiency measures, demand response (and the energy-saving characteristics of CHP).

² Alternatively, this could be expressed as withdrawal of authority to procure power from nuclear resources.

³ The Commission could start by ordering NPPs to close temporarily, pending a full review of the grid reliability, costs and safety of California's nuclear power system. That review could be the one already planned by the CEC, and/or other CPUC proceedings. Track 1 of this proceeding could further explore the economic and reliability benefits of using preferred resources as an alternative to the extraordinary risks of nuclear power that Fukushima has revealed.

The base-load characteristics of the nuclear power plants can be met by firm or firmed-up renewables, CHP, or as a last resort, large hydro and natural gas-fired power plants. Electric power from renewable resources is likely available from private developers because the small number of private renewables developers has been caused by a dysfunctional CPUC interconnection policy that could be addressed by the means recommended in WEM's testimony.⁴

Renewables that are already in the pipeline but not yet built (including SCE's 500 MW of solar PV) and some of the small renewables languishing in the interconnection queues, could be sited on or near the NPP sites in order to address VAR. Additional measures to address VAR should be explored in Track 1.

California has the authority to pull the plug on nuclear procurement

In the 1970's, California banned construction of new nuclear power plants because of the absence of federal facilities to handle nuclear waste.⁵ PG&E fought that law in *Pacific Gas & Elec. v Energy Resources Commn.*, 461 US 190.

The case went all the way to the Supreme Court, which ruled against PG&E. The decision written by Justice White stated:

The turning of swords into plowshares has symbolized the transformation of atomic power into a source of energy in American society. To facilitate this development the Federal Government relaxed its monopoly over fissionable materials and nuclear technology, and in its place, erected a complex scheme to promote the civilian development of nuclear energy, while seeking to safeguard the public and the environment from the unpredictable risks of a new technology. Early on, it was decided that the States would continue their traditional role in the regulation of electricity production. The interrelationship of federal and state authority in the nuclear energy field has not been simple; the federal regulatory structure has been frequently amended to optimize the partnership. *Pacific Gas & Elec. v Energy Resources Commn.*, 461 US 190, at 193.

[According to the Court of Appeals ruling] The granting of state authority in §§ 271 and 274(k), combined with recent federal enactments, demonstrated that Congress did not intend that nuclear power be developed "at all costs," but only that it proceed consistent with other priorities and subject to controls traditionally

⁴ This is indicated by the June 27, 2011, filing by Sustainable Energy, of a Petition for Modification of Decision 07-07-027 (in R.05-06-027) as well as other recent developments. The CPUC Energy Division's April 29, 2011, workshop on the CPUC's Rule 21 interconnection policies demonstrated that many developers have viable projects awaiting interconnection that could be available in a matter of months.

⁵ Pub. Res. Code Ann. §§ 25524.1(b) and 25524.2.

exercised by the States and expressly preserved by the federal statute. Ibid, at 199.

But as we view the issue, Congress, in passing the 1954 Act and in subsequently amending it, intended that the Federal Government should regulate the radiological safety aspects involved in the construction and operation of a nuclear plant, but that the States retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related state concerns.

Need for new power facilities, their economic feasibility, and rates and services, are areas that have been characteristically governed by the States. Ibid, at 205.

The Concurrence filed by two justices indicates that requiring California to apply higher safety standards than the NRC is within the state's purview, provided that these do not *conflict* with the United States Nuclear Regulatory Commission (NRC)'s standards.

Utilities should refile BPPs; provide “roadmap” for following the Loading Order

Several parties asked the Commission to require IOUs to refile BPPs that comply with the Loading Order and other requirements, for example Sierra Club recommended that BPPs provide an “explicit roadmap” for following the loading order. Sierra Club Opening Brief, p. 11.

The resistance to considering the Loading Order is both conceptual and timing-related:

As SDG&E explained in its rebuttal testimony addressing similar concerns, procurement by the IOUs to fill their bundled customers' near-term net short positions occurs after the loading order resources have been incorporated in the procurement planning process.¹⁵¹ In making procurement decisions, PG&E first considers reduction in demand resulting from its aggressive EE and DR programs, as well as resource additions from RPS-eligible and DG resources. It is only after these loading order resources are considered that PG&E procures resources to meet the remaining net short need of its customers.¹⁵² PG&E Opening Brief, p. 33.

In other words, the utilities believe all the major issues around the loading order are considered in other proceedings, and only after that, do they consider the net short, in the LTPP proceeding. This ignores D0712052, which specifically ordered IOUs to go back and look for more renewables to fill the net short, instead of assuming these would be natural gas resources.

SCE evidences an odd passivity:

SCE will account for any DR that materializes above the forecasted load impact in considering SCE's incremental Resource Adequacy (RA) requirements and net energy requirements. SCE Opening Brief, p. 30 (emphasis added).

Many parties also complained that it is impossible to compare the BPPs to each other, and asked the Commission to provide a template for IOUs to follow.⁶ We ask the Commission to provide a template for these refiled BPPs.

Providing a step-by-step roadmap for replacing approx 6000 MW of power from San Onofre, Diablo and Palo Verde with preferred resources would give the Commission an opportunity to demonstrate what it means to use the loading order, on a smaller scale, which utilities could then carry into the statewide planning arena.

The Commission clearly needs to guide and prompt IOUs as to what it means to provide a roadmap for using the loading order in procurement. Providing direction like this would speed up the process and possibly help to avoid a situation where IOUs just refile more non-compliant plans as in the energy efficiency Applications proceeding A0807021 where IOUs filed three rounds of non-compliant plans. In the end the Commission still had to provide specific instructions to make the plans conform to Commission directions.

This would also be a start towards realizing the Governor's proposed 12,000 MW of DG.

Most importantly, it would provide opportunities for IOU procurement that would be less likely to add to the current excess of power. The current reality of excess power means that it is most likely that the need for new procurement authority is limited to Local Area Reliability requirements and peak power in the inland valleys.

As described in our Testimony, WEM learned how little the utility procurement planners understand how to follow the loading order, in R0602013 hearings and also in hearings in PG&E's 2010 General Rate Case (A0912020).

⁶ Sierra Club Opening Brief, p. 13, citing DRA's recommendation that the "Commission should mandate a common bundled plan template and consistent reporting of resource/load analysis." (Exh. 400, pp. 11-12.)

Outlines of a Roadmap for implementing WEM's BPP

WEM supports the idea of a roadmap for BPPs to follow the loading order. We sketch out some of the elements that would be included in a roadmap to implement WEM's proposed Alternative Bundled Procurement Plan, below. (We have already discussed some of the elements in the sections (above) addressing our proposals to substitute preferred resources for nuclear power.)

As soon as possible, by May 2012 at the latest, utilities should publish data on resources attached to their distribution systems. This would allow ISO, CPUC, CEC and parties to view a more complete picture of California's resources, rather than leaving out all the resources attached to the distribution grid.

In Track 1, the Commission should develop a reporting protocol for IOUs to collect, record and publish data on resources attached to distribution in Track 1. Resource mapping should include IOUs revealing where they already have sufficient resources and where they have need for more. This would help to ascertain what types of preferred resources would be optimum to encourage serving those areas, starting with resources located closest to the load.

We recommend starting by ordering IOUs to map existing EE, DR, DG, CHP and small renewable resources — first correlating them with the distribution grid by substation, and then correlating those distribution resources with the transmission grid. The small renewable resources currently waiting for interconnection in the “queue” should also be mapped.

The Commission should order SCE and SDG&E to provide a report on how these resources would reduce the Local Capacity Requirement for San Onofre, and order PG&E to report on how the existing resources attached to the distribution grid would reduce the amount of Diablo resources that are considered “critical.”

Once we have a clear idea of what's in the system already, WEM believes that most if not all of the residual need to fill in for the absence of nuclear power plants could be handled by additional preferred resources with triage, starting with DR, then EE, solar PV and small renewables (combined with appropriate storage or other balancing of intermittent resources), and CHP.

To address Local Capacity Requirements currently served by San Onofre, System Requirements for PG&E, and the high peak in the hot inland valleys, the utilities should hold solicitations, including RFOs, which provide eligibility to bid for all of these hitherto disqualified resources.

The Commission's Track 2 decision could specify procurement authority for utilizing a California Standard Offer for EE and DG, to help speed up delivery of clean resources, as described in WEM's Reply Testimony.

Finally, the Commission should order utilities to fund an independent entity to create a strong, well-advertised conservation campaign, with messages asking people to conserve power in specific ways in particular areas, in order to keep the air clean while California pursues a sane policy of switching from nuclear power to clean resources. The State-run Flex-Your-Power campaign provided 7% savings in the summer of 2001 and we believe the current revulsion against nuclear power would increase this response.

Question of need for procurement

As Sierra Club's Opening Brief noted (p. 13) PG&E refused to discuss the question of demand in its testimony, seeming to equate the issue of demand with the need for new generation resources. PG&E Opening Brief, p. 9; Exh. 101, p. III-1. In fact, the *need for procurement* in Track 2 needs to be better understood.

Sierra Club noted that BPPs were not supposed to include "the broader issues relating to system need determination being addressed in Track I (System Track I). (Track II Scoping Memo, p. 1.)" However the utilities all had different approaches for addressing the narrower issue of the need for procurement in Track 2.

Sierra Club noted: "PG&E claims that "resource need or surplus" is confidential. (Exh. 100, pp. 95.) In contrast, SDG&E provides a resource need or surplus value. (Exh. 304, p. A-11 - A-12.)" (Sierra p. 13); and Edison attempted to greatly discount the results of EE and DR programs as "unrealistic." Sierra, p. 4.

WEM agrees that specific needs for procurement authorization requires at least some attention to system need — and the Commission should provide clearer guidance on this issue for the refiled BPPs.

WEM's Testimony provided a simplified chart based on the Standardized Planning Assumptions data for each utility, that demonstrated California IOUs have an excess of

power of 40% in 2011, 45% in 2020, and even more in the intervening years — even excluding the use of nuclear power.⁷ *Clearly, the excess would be even larger when the currently invisible resources on the distribution grid are counted.*

Deny new procurement from conventional resources

Sierra Club recommends requiring utilities to pledge not to seek procurement of “conventional long-term resources.” Sierra, p. 13. WEM agrees, in view of the large excess of conventional resources through 2020, and the utilities’ failure to meet the 20% RPS, nothing to say of the 33% target.

SCE clearly expects to miss the 33% target, emphasizing “flexible compliance” with the RPS. SCE Opening Brief, p. 31.

While some short-term conventional resources may be needed to replace the nuclear power resources, WEM believes that there is little need for more long-term procurement.

In view of the extraordinary risk of contaminating the water supply, WEM also recommends that the Commission specifically ban procurement from shale gas “fracking.”

WEM recommends a ban on procurement of shale gas from “fracking” — either for short, medium or long-term. To that end, CPUC should deny PG&E’s proposal to reduce oversight, which could potentially result in PG&E slipping in such resources as “renewable biomethane.”⁸

“Renewable Integration Products” should be *renewables or storage technologies*

SCE proposed “Renewable Integration Products” (SCE Opening Brief, p. 18) and PG&E wants this for itself too. PG&E, pp. 13-14.

SCE complained, “Most renewable resources are intermittent resources which provide variable energy.” SCE, p. 18. This is an overly broad statement, which ignores small hydro, geothermal, biogas, and biomass, which are firm resources.

Oddly, there is no mention of storage technologies as part of this “product.”

⁷ February 10, 2011 Ruling, Attachment 1 Standardized Planning Assumptions, pp. 17-19.

⁸ PG&E Opening Brief, pp. 27-28, Exh. 100, Sheets 139-142.

It appears to be conventional procurement by another name, and as such, should be denied.

Recognize the benefits of Distributed Generation

SCE discounts renewables by 4% because of transmission/distribution line losses. SCE Opening Brief, p. 33. It is not clear whether it treats conventional resources the same way.

As an alternative, WEM recommends utilities should *add* 4% to the value of distributed resources, to account for the *lack of line losses*.

PG&E selling to/buying from other LSEs (CCAs and Direct Access?)

The Commission should specifically require updated assumptions on departing load of Community Choice Aggregators (CCAs) and Direct Access in refiled BPPs, as MEA recommended in its testimony.

Curiously PG&E is asking for authorization to sell to and buy from other LSEs. PG&E Opening Brief, pp. 15, 20.

WEM recommends that the Commission make sure that there is no potential for PG&E to double-charge CCAs and DAs for capacity that they are forced to procure under SB695 and D1105005.

PG&E asserts, without supporting evidence, that it “only procures enough resources to meet its customers needs and satisfy regulatory requirements such as System and Local RA.” PG&E Opening Brief, p. 32.

It claims that its power sales benefit ratepayers:

PG&E could either keep this excess RA, which would be no benefit to its customers, or offer it in an RFP or RFO so that it could sell the excess and return any revenues to its customers. PG&E Opening Brief, p. 20.

Utilities should be required to prove such claims by reporting monthly on the specific amounts, sources, and prices of power that they are selling into the market on behalf of ratepayers. We believe this goes beyond the reporting requirements in ERRRA.

Blue Moon

This is one of those times when beliefs that held true for generations are exposed as mere myths, convenient for bolstering the status quo, but really only describing how we *want* things to be, rather than how they really are. *A blue moon comes along and reminds us that there are exceptions.* Humans are wired to overlook exceptions, but when they are truly awesome and can't be ignored, we may write songs about them — at other times, we may fundamentally rethink our views.

Nuclear expert Arnie Gunderson is one who had the courage to reconsider his earlier beliefs and break ranks with his colleagues and the industry where he had a successful career. He works now to expose nuclear dangers and try to find practical solutions to the nastiest problems. He warns that the Fukushima tragedy, horrific as it already is, could still get worse. Much worse:

I know the Chairman of the US Nuclear Regulatory Commission (NRC) stated that the reason he told Americans in Japan to stay 50 miles away from the Fukushima Dai-Ichi complex was his fear that the Unit 4 spent fuel would catch fire and volatilize large amounts of plutonium, uranium, cesium and strontium. If the Brookhaven study is to be believed, such an event could kill more than a hundred thousand people as a result...

With tens of tons of extra water in them, the mass in the core area [of units 1, 2, and 3] exceeds the seismic design. So they are unusually vulnerable to earthquake damage. They are in real jeopardy in case of a severe aftershock.

The same applies to the already weakened structure of the spent fuel pool in Unit #4. And as already mentioned, because the spent fuel pool is open to the sky, the radioactive releases from the damaged fuel in that pool could be exceptionally dangerous over a much larger area than previously envisaged....

If all else fails, I think eventually TEPCO may get to the point of throwing up their hands and just pouring concrete on top of the reactor cores in Units 1, 2 and 3...

But Unit 4 is still a problem, because all the fuel is at the top – high up – and you can't pour concrete onto it because you will collapse the supporting structure. And the fuel in the pool is so radioactive, you can't lift it out either. I used to do this for a living, but Unit 4 has me stumped – I don't know what to do about it. *Fukushima: The Crisis is Not Over*, by Arnie Gunderson, June 2011.⁹

This week's news from Japan includes this: the costs to TEPCO have now surpassed all the profits it ever generated from nuclear power:

⁹ <http://www.ccnr.org/Gundersen.pdf>

Kenichi Oshima, an environmental economist and professor at Kyoto-based Ritsumeikan University, estimates that Tepco in that time earned just less than ¥4 trillion, possibly equal to or less than the amount it must pay farmers, fishermen, evacuees and others affected by the nuclear crisis. *38 years of nuke profit up in smoke?* Japan Times, 6-28-11.¹⁰

Of course, NPP owners in the US are protected by the Price Anderson act, which requires the public to pick up all costs above \$12 billion. But that just means the US and California's economy would take a huge hit following a catastrophe at San Onofre and/or Diablo Canyon — which would at least somewhat affect utilities because impoverished people and governments tend to use less power, and are less able to pay their bills.

Mr. Oshima made another point that is more directly applicable to California's IOUs. "Contrary to a widely disseminated government estimate:"

The cost of power generation per kilowatt hour came to ¥10.68 for nuclear power, ¥9.90 for thermal power and ¥7.26 for hydraulic power on average during the 38-year period, when expenses for disposal of radioactive waste and subsidizing local governments hosting nuclear plants are added to direct costs... Ibid.

As we work on reply briefs this week, from time to time we pause to check the nuclear news *in the United States*, which feels more and more like watching Fukushima in slow motion. Today (Wednesday, June 29th), a 95-square mile fire in New Mexico that is "zero contained" is racing through canyons contaminated by decades of nuclear tests and licking at the fence of Los Alamos Lab, threatening to breach 30,000 barrels full of plutonium, strontium, cesium, etc. etc. etc.¹¹

The EPA came out of hiding and sent planes to monitor the air above the fire. They say they've found no radiation so far. Should we believe them? People have become skeptical of government statements in the US and Japan, since they made a pact to cover up news of nuclear danger.

Two states away, 900 miles northeast of Los Alamos, unprecedented floods on the Missouri River could collapse any of six dams upriver, threatening disaster to Omaha,

¹⁰ <http://search.japantimes.co.jp/cgi-bin/nn20110628x2.html>

¹¹ "The concern is that these drums will get so hot that they'll burst. That would put this toxic material into the plume. It's a concern for everybody," said Joni Arends, executive director of the Concerned Citizens for Nuclear Safety, an anti-nuclear group." 6-29-11 MSNBC: *Officials throw 'everything' at Los Alamos wildfire* <http://www.msnbc.msn.com/id/43573997/ns/weather/>

Nebraska. Floods are expected to continue for three months, wearing away at earthen dams that already show unexpected vulnerability:

Big Bend Dam, South Dakota. The Missouri is flowing through the emergency spillway at Big Bend Dam. The water shooting through the spillway gates is moving so fast and with such erosive power that it is back-cutting toward the earthen dam itself. Left unchecked, the water could threaten the structural integrity of the dam. Although at present, that scenario is highly unlikely. Nonetheless, the Army is concerned about the erosion. To address the issue, a dump truck hauled large blocks of quarried stone to the trouble spot. The Army plans on dropping the rock atop the eroded bank sections to halt the back-cutting. A civilian working for the Army acknowledged that the engineers did not expect to be in this predicament when they first opened the spillway gates to the Missouri's floodwaters. The back-cutting caught the Army by surprise. 6-27-11 Eco in the Know: *Notes from the field: Back-Cutting at Big Bend Dam, (emphasis added).*¹²

Unfortunately the danger to Omaha is not just from the floods, but from two nuclear power plants located in the floodplain south of the city. One of them, Fort Calhoun, is shut down (like Unit 4 at Fukushima). But it is now two feet underwater, since an 8-foot high, 2000 ft. long water-filled rubber donut that was supposed to protect the plant was punctured and collapsed Sunday June 26 at 1am local time.¹³ The plant lost offsite power for several hours; thankfully emergency generators were working and maintained cooling til offsite power was restored that afternoon. June 26, 2011 Reuters, *Floodwaters surround nuke plant after breach.*¹⁴

NRC Chair Gregory Jaczko, a fine, tall young fellow with a seemingly unshakeable view of his capacity to protect 350 million Americans from all nuclear dangers, flew out to Missouri over the weekend, toured the two plants, and reassured everybody that there was no danger.¹⁵

"We don't believe the plant is posing an immediate threat to the health and safety of the public," Jaczko said. 6-27-11 AP: *Nebraska nuclear plants safe despite*

¹² <http://ecointheknow.com/missouri-river-flood-2011/notes-from-the-field-june-27-2011-back-cutting-at-big-bend-dam/>

¹³ The rubber donut was accidentally nicked by equipment *inside* the protected area. A log — or who knows what lurking in the floodwaters could easily have done the same thing.

¹⁴ <http://www.reuters.com/article/2011/06/26/us-usa-nuclear-plant-idUSTRE75P21X20110626>

¹⁵ 6-27-11 Reuters: NRC chief signs off on threatened nuclear plant
<http://www.reuters.com/article/2011/06/27/us-usa-nuclear-plant-idUSTRE75P21X20110627>

*flooding, official says; NRC chairman visits facilities day after temporary berm collapses.*¹⁶

“Just last year, the NRC said, if the floodwaters rose to 1010 feet, just 4 feet from where they are – that there was 100% chance of meltdown,” said Joe Cirincione of Ploughshares, on 6/28/11 Rachel Maddow show.¹⁷ The flood is expected to continue for another month. There is potential for floodwater to weaken the foundations of the plant, and further damage underground wiring.

Cooper — a second nuke endangered by the flood, further downriver — is the primary remaining source of power to the grid in the area, *including offsite power for Fort Calhoun*. Both Cooper and Fort Calhoun remain vulnerable if the river rises just a bit more than currently expected — which could result from a dam failure upstream.

Senator Ben Nelson of Nebraska appealed to the Army Corps of Engineers to “clarify whether the Corps will consider the safety of Nebraska’s two nuclear plants adjacent to the Missouri River as dam releases are scheduled. I also wish to learn more as to what steps the Corps is taking in conjunction with the NRC, OPPD, and NPPD to ensure the structural integrity of the structures protecting the Fort Calhoun and Cooper Nuclear Stations.” 6-29-11 Letter from Sen. Nelson to General McMahon, Army Corps of Engineers.¹⁸ The letter included this:

I wanted to bring to your attention some comments in an article from yesterday’s Omaha World Herald, “Nuke Plant Safe Amid Unique Peril” (copy enclosed). In this article, Corps spokesman Erik Blechinger stated, “Nebraska’s two nuclear plants aren’t being factored into the Army Corps of Engineers schedule of dam releases.” He went on to say, “Flood-risk reduction is our priority right now. We are working closely with OPPD and NPPD, so I would never say that we wouldn’t consider adjusting releases, but I can’t imagine all the possible scenarios. Currently, there is just no flexibility in the system.”

One hears echoes of pleas from New Orleans Mayor Nagin to FEMA after Katrina, or fisherwomen in the Gulf begging the feds to stop BP’s use of the toxic dispersant, Corexit, during the oil spill. These were chilling enough.

¹⁶ http://today.msnbc.msn.com/id/43540933/ns/today-today_news/t/nebraska-nuclear-plants-safe-despite-flooding-official-says/

¹⁷ *Nuclear Safety vs. Fear Itself* <http://www.msnbc.msn.com/id/26315908/vp/43571396#43571396>

¹⁸ http://bennelson.senate.gov/press/press_releases/nelson-corps-must-consider-safety-of-nebraskas-nuclear-plants-in-flood-plan.cfm

But here, we have two nuclear power plants and two spent fuel pools *full of dozens of nuclear cores — the most lethal materials on the planet* — capable of melting down and causing cancer to hundreds of thousands of people, possibly millions, and untold devastation throughout the largest river system in the world — from the Missouri on down the Mississippi.

Are we done yet? Or do we have another planet lined up and spaceships waiting for when we have to evacuate this one?

Despite the agency's historic refusal to consider earthquakes in emergency planning (well-documented in WEM's Testimony and our Response to the Motion to Strike) NRC simply fibbed to AP's reporter (or maybe they believe it's true just because they say so?):

NRC inspectors have found some problems with U.S. equipment and procedures. But the agency says all sites are ready to deal with earthquakes and flooding. 6-28-11 AP: *How long can nuclear reactors last? US, industry extend spans; 'What they're saying is really a fabrication,' retired reactor designer says*, by Jeff Donn.¹⁹

Governor Cuomo of New York has decided it's time to bail:

The Cuomo administration has made it clear it wants Indian Point shut down, saying there is **simply** too much at stake with two nuclear reactors just 35 miles north of New York City. WCBS 6/29/11 *Entergy Stunned As Gov. Cuomo Continues Push To Close Indian Point*²⁰

Will we save New York, and not L.A.?

Conclusion

It is our privilege, and our burden, as we are alive today at the confluence of climate change and nuclear catastrophe, to create bundled procurement plans in Track 2 of this proceeding that address both in the most timely possible way.

¹⁹ http://today.msnbc.msn.com/id/43556350/ns/us_news-environment/#

²⁰ <http://newyork.cbslocal.com/2011/06/29/entergy-stunned-as-gov-cuomo-continues-push-to-close-indian-point/>

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Respectfully Submitted,

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