

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)

**COMMENTS OF THE
CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON
STANDARDIZED PLANNING SCENARIOS**

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The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submits these Comments on the Standardized Planning Scenarios attached to the Revised Assigned Commissioner’s Ruling Setting Forth Standardized Planning Scenarios for Comment issued on September 25, 2012 (September 25 Revised ACR). These Comments are filed and served pursuant to the Commission’s Rules of Practice and Procedure and the September 25 Revised ACR.

**I.
THERE IS NO PROPOSED PLANNING SCENARIO THAT MEETS THE LONG-TERM,
LEGISLATIVELY MANDATED GOALS FOR THE STATE’S ELECTRIC GRID.**

The first fundamental tenet of scenario planning is that the range of the scenarios must cover the plausible range of future outcomes for the forecast period at issue. For purposes of this long term procurement plan (LTPP) 2012 cycle, that period covers the next ten years with a notional outlook for twenty years. Unfortunately, the Standardized Planning Scenarios attached to the September 25 Revised ACR (Scenarios Attachment) completely fail to meet this simple test. *All* of the proposed scenarios are simple variations on *one* theme – an “all gas” forecast and future.¹

¹ September 25 Revised ACR, Scenarios Attachment, at p. 20.

Thus, if the proposed Standardized Planning Scenarios (Scenarios Attachment) are adopted without change, and with the modeling undertaken last year and to date in Track I, there is no need to do any more “modeling” since the “answers” – “all gas” – can be deduced today. Namely, reliance on the proposed scenarios will mean that if there is a need for some local capacity, the only answer possible is to build new gas-fired generation. If there is a need for energy to serve load “when” the preferred policy of all cost effective energy efficiency fails to deliver, the only answer possible is to build new gas-fired generation. If there is a need to replace the energy from the San Onofre Nuclear Generating Station (SONGS), the only answer possible is to build new gas-fired generation. If there is a need for “system flexibility” to deal with extreme ramps, the only answer possible is to build new gas fired generation. If there is a need to decide how much of the new gas-fired generation should be combined cycle and how much of the new gas-fired generation should be simple cycle, it is a 50/50 split according to the California Independent System Operator (CAISO).²

In this regard, the “Base Case” Proposed Scenario³ has already been modeled to show that it only requires the LCR “need” recommended by the CAISO in Local Reliability Track 1 for the Los Angeles (LA) Basin, Big Creek/Ventura, and San Diego Gas and Electric Company (SDG&E) local capacity areas, which, according to the CAISO, can only be met by building 3,400 MW of new gas-fired generation.⁴ The SONGS Early Retirement Scenario has 2,200 MW less non-gas fired generation,⁵ thus “creating” a “need” to build 5,600 MW of new gas-fired generation (3,400 MW for LCR plus 2,200 MW for SONGS replacement). The High Distributed

² Local Reliability Track 1 (Track 1) Exhibit (Ex.) ISO-4, at p. 3 (CAISO (Rothleder)).

³ September 25 Revised ACR, Scenarios Attachment, at p. 12.

⁴ CAISO Presentation made at the R.12-03-014 Workshop held on June 4, 2012 (June 4 CAISO Presentation), at Slide 18. This and other pertinent slides from this presentation are now part of the record in Local Reliability Track 1 of this proceeding as Exhibit (Ex.) CEERT-03 (CEERT (Caldwell)).

⁵ September 25 Revised ACR, Scenarios Attachment, at p. 14.

Generation (DG), High Demand-Side Management (DSM) case has 2,200 MW less “non-managed load,”⁶ leading to the inevitable conclusion that 1,100 MW too many of combined cycles and 1,100 MW too many of simple cycle plants have been built just to manage LCR need. However, the implication is that over-procurement in this case is “justified” because grid reliability is protected, and all that is left to decide is how big the “capacity payments” must be to keep any of the surplus gas-fired generation from retiring until need for them potentially appears down the road. Finally, the Replicating Transmission Planning Process (TPP) Scenario requires 1,200 MW for “system need,”⁷ which the CAISO has testified in Track 1 will require building 4,600 MW of new gas fired generation (3,400 MW for LCR plus 1, 200 MW for system flexibility).⁸

So, according to these “scenarios,” the minimum new gas fired generation “need” is 3400 MW, the maximum is 5,600 MW. An answer that the Commission might reach in these circumstances is to “pick” a “conservative” mid-point of 4,500 MW of new gas-fired generation. While Energy Division has concluded that a “Tier II” High DG, High DSM, 40% by 2030 RPS Scenario will only be studied “if there is time,”⁹ it is in fact the *only* possible scenario that would even consider that 33% RPS may not be an end point. In this regard, it must be remembered that Governor Brown in signing Senate Bill (SB) 1X 2 (33% RPS) specifically stated:

“While reaching a 33% renewables portfolio standard will be an important milestone, it is really just a starting point - a floor, not a ceiling. Our state has enormous renewable resource potential. I would like to see us pursue even more far-reaching targets. With the amount of renewable resources coming on-line, and prices dropping, I think 40%, at reasonable cost, is well within our grasp in the near future.”¹⁰

⁶ September 25 Revised ACR, Scenarios Attachment, at p. 16.

⁷ June 4 CAISO Presentation, at Slide 18; Track 1 Ex. CEERT-03, Slide 18 (CEERT (Caldwell)).

⁸ Track 1 Ex. ISO-4, at p. 4 (CAISO (Rothleder)).

⁹ September 25 Revised ACR, Scenarios Attachment, at p. 20.

¹⁰ Governor’s Signing Statement for SB 1X 2 (April 12, 2011) (http://gov.ca.gov/docs/SBX1_0002_Signing_Message.pdf).

Even then, such a scenario will only achieve 50% of the State’s long-term carbon reduction goal *if* SONGS and Diablo Canyon last forever, and it falls well below the long term trajectory for carbon reduction as outlined in current State policy.¹¹

In addition to not studying a nearly broad enough range of outcomes, the proposed Standard Planning Scenarios violate the second tenet of scenario planning by not even considering a range of possible, critical input assumptions. There is little doubt that the three critical input assumptions are load growth, gas prices, and carbon prices. Failure to even consider gas price volatility, given the thirty-year history of “surprises” on gas prices, is unacceptable. Failure to even consider a ratcheting of carbon prices to achieve long-term state climate change policy goals is indefensible. Treating load growth as a constant, with “net load” only varying with weather and policy driven outcomes for energy efficiency and distributed generation, completely underestimates the uncertainty involved.

CEERT believes that these fundamental shortcomings in the Proposed Planning Scenarios are fatal to their use – especially as a means of informing energy procurement over the next ten years. For this reason, CEERT asks that the Commission adopt its recommended alternate scenarios/sensitivities contained in Section II below.

II.
THE SEPTEMBER 25 PROPOSED SCENARIOS SHOULD NOT, AND CANNOT
BE ADOPTED UNLESS SIGNIFICANT MODIFICATIONS ARE MADE.

Based on the analysis in Section I. above, CEERT recommends that the following steps be taken by the Commission before and in adopting any final Standardized Planning Scenarios:

1. Develop and adopt a “Do the Best You Can with What You Have Got” Scenario. Before committing to the purchase of new gas fired generation that will haunt the State for the next fifty years, it is imperative that the Commission explore tweaking the current fleet as much as

¹¹ Executive Order S-3-05 (June 1, 2005) (<http://gov.ca.gov/news.php?id=1861>).

possible to fill the perceived needs. This Scenario would start with the “Base Case” assumptions and assume that there is indeed an LCR need in the Los Angeles Basin. Then, that LCR need would be mitigated by targeted energy efficiency and distributed generation, with the remaining LCR need met mostly with Demand Response (DR), as recommended by CEERT (and others) in Track I testimony and briefs.¹² Reliability could be ensured by, e.g., constructing a phased shifted intertie between the CAISO and Los Angeles Department of Water and Power (LADWP) balancing areas across the San Gabriel River between the Haynes and Los Alamitos Generating Stations (less than 1 mile of new transmission with *no* new urban right of way).

By sharing the reliability burden for contingencies, *both* systems will save significant investment, and combustion in the LA Basin will be minimized. The LCR need in this scenario is for an event-driven contingency-based localized capacity that is called upon to operate relatively rarely. This need should *not* be filled with baseload gas. There is also at least potentially some need for “system flexibility.” Rather than building new gas fired generation, the existing combined cycle fleet should be first retrofitted to lower minimum load levels (Pmin), improve ramp rate, and reduce start up time.

This scenario should also assume rare curtailment of currently “must take” resources to handle the tails of the distribution curve, but should *not* require or assume the building of expensive conventional generation capacity to deal with events that are perfectly predictable (extreme ramps are caused by extreme weather) and are relatively rare. It should also *NOT* require or assume the addition of new combined cycle plants to supply system energy unless and until the existing fleet of combined cycle plants exceeds a 60% capacity factor.

2. Develop and adopt a “Continue Environmental Policy” Scenario. In this case, the 40% by 2030 RPS case would be replaced with a 50% RPS by 2030 case to match the Assembly Bill (AB) 32 and Executive Order S-3-05 (GHG emission reduction) trajectory.¹³ Otherwise, the existing “High EE, High DSM Scenario (i.e., the “Continue Environmental Policy” without the added renewables) should be relegated to Tier II if there is time to study. If there is an early energy need in this Continue Environmental Policy scenario (e.g., to replace SONGS),

¹² See, e.g., CEERT Opening Brief in Local Reliability Track 1 (September 24, 2012).

¹³ Assembly Bill (AB) 32 (Stats. 2006; ch. 488 (adding Health & Safety Code §§38500, et seq.)).

it should be filled with accelerated RPS procurement (heavily weighted towards baseload renewables, like biomass or geothermal), rather than gas.

3. Conduct a true scenario analysis. With the existing “Replicating the TPP” Scenario, there are now, as before, four “Tier 1” scenarios. These four scenarios are then run with a low, mid, and high gas price forecast. CEERT recommends using current prices (which are at or near cyclical lows) for the low case, the base case forecast for the mid price, and an equilibration of domestic and international prices for the high forecast. The California Energy Commission (CEC) should be consulted for details of these forecasts. The four cases would also be run with two carbon prices in consultation with the California Air Resources Board (CARB) to cover a range of climate change mitigation efforts. Finally, the four cases are also run with and without the retirement of SONGS.

Only if these new scenarios are developed and adopted and assumptions corrected as recommended above will the resulting 96 (4x3x2x2) “scenario outcomes” cover a reasonable range of input assumptions and procurement policies that can appropriately inform any Commission decision regarding short to mid term procurement targets and the potential long term consequences of over- or under-procurement of different types of new investments. The actual “modeling” effort to accomplish this much richer analytical effort is modest. Most of the input assumptions are already available, the rest are easily obtained. The computer run time is at most a few days. Presenting the results in a format that decision makers and the public at large can understand will take some creativity, but that is a worthwhile challenge for staff.

III. CONCLUSION

For the reasons stated herein, CEERT respectfully requests that the Commission significantly revise the Standardized Planning Scenarios attached to the September 25 Revised

ACR. In doing so, CEERT asks that its recommendations above be adopted and incorporated in revising and adopting any final LTPP Standardized Planning Scenarios.

Respectfully submitted,

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