

**COMMENTS OF SIERRA CLUB CALIFORNIA  
ON THE ENERGY DIVISION PROPOSED  
SCENARIOS FOR USE IN R.12-03-014**

General comments on scenarios

The scenarios put forward for further modeling need to provide a realistic picture of the range of potential energy futures along with plausible best and worst case scenarios. As Energy Division staff have recognized, the labeling of assumptions as “high,” “mid,” and “low” does not prejudge the likelihood that the assumption will occur – otherwise the “base case” scenario would simply use all of the mid-level assumptions across the board, the worst case would use the gloomiest set of assumptions and the best case would use the sunniest set of assumptions. This is not a reasonable approach to this exercise. Our comments below, therefore, focus on putting forward plausible scenarios for modeling and the adjustments staff should make to the current scenarios to ensure they reasonably portray the range of plausible outcomes.

Ranking for modeling priority

- (1) Base case: The base case scenario should represent the best guess on our likely energy future and should be the top priority for modeling. Below Sierra Club recommends some adjustments to this scenario to ensure that it provides a middle-of-the-road prediction of future loads and resources.
- (2) High DG: Again with adjustments described below, this scenario represents a bracket on the plausible most favorable prediction of our energy future. We suggest that this be relabeled the “environmental” scenario and that the recommendations described below for the current Environmental Scenario be incorporated in this scenario as well. This would be consistent with the approach of the previous LTPP. With these changes, the current Environmental Scenario (1A) would not need to be included for further modeling.
- (3) Early SONGS Retirement: This scenario represents the other bracket on the most plausible net short risk.
- (4) High and Low Load Scenarios: These scenarios could be run to test other sensitivities, but Sierra Club considers these to be second tier for purposes of modeling priority.
- (5) Environmental Scenario: Sierra Club considers this label to be a misnomer and relic of previous transmission planning processes which did not accurately value biological resources.<sup>1</sup> The scenario as constructed is flawed because it does not appear to give sufficient preference to projects on disturbed lands: the Imperial CREZ is unchanged between the base and environmental scenarios; the Central Valley North has only 30 additional MW between scenarios; the Westland CREZ projects have been dramatically reduced from 1,500 to 775 MW. Should staff include this scenario for further modeling, the criteria for selecting resources out of the discounted core should be revised to give greater preference to projects on disturbed lands and in areas outside of the California desert with lesser impacts on sensitive biological resources.

The remaining scenarios (Early Nuclear Retirement, No DSM, and Replicating TPP) are not plausible and should be given no further consideration:

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<sup>1</sup> Although the discussion references the DRECP, this scenario appears to be a rough hybrid of the two processes.

(1) Early nuclear retirement. Early SONGs retirement seems to be the more plausible scenario related to nuclear shutdown.

(2) No new DSM/Replicating TPP: Both of these scenarios include the absurd assumption that all policies for EE and DR will be abandoned or ignored. As ED staff recognized this assumption in previous CAISO modeling is not based on any realistic prediction of future energy resources and policies, but was a simplifying assumption for purposes of modeling because at the time CAISO claimed that it lacked of locational information on EE and DR resources. As staff further acknowledged, even that justification is no longer valid.

Sierra Club was also concerned by comments raised at the workshop suggesting that these absurd assumptions might be used as a way around the Commission's decision on the appropriate load growth assumptions. Staff should reject such attempts to shoehorn-in already-rejected load growth assumptions by eliminating demand-side reductions. Such an ends-driven argument is not an honest prediction of the future and, in any event, would lead to erroneous modeling results on flexibility needs because location-specific demand-side resources are not interchangeable with varying system-wide load growth.

#### Recommended adjustments to scenarios

(1) The scenarios should include some projected growth in RPS supply beyond 2020. The 33% renewable requirement does not end in 2020. Cal. Pub. Util. Code § 399.15(b)(2)(B) (requiring 33 percent RPS by 2020 and “in all subsequent years”). While it is much more likely that the percentage of renewables will continue to grow, at a minimum, the scenarios should assume that RPS will grow proportionately with load and that the 33% requirement will continue to be met. A simplified approach could allocate that growth in RPS proportionately among the various types of renewable sources according to their relative levels in 2020 (i.e., if small PV is 2 percent of the total renewables in 2020, assume that it will maintain that proportion over the extended planning period).

(2) It is not reasonable to apply constant retirement assumptions as the net system balance approaches the PRM, which the scenarios do for the extended planning period. Once the net system balance goes below that level, the economics around the shutdown of non-OTC sources will change as will the flexibility to shut down such sources that may be deemed necessary for reliability. The scenarios should assume that once the net system load reaches 115 to 117 percent, additional retirements will cease. This will avoid unrealistic predictions that we will unnecessarily dig ourselves into net short holes.

(3) Sierra Club recommends that all scenarios currently using the low CHP assumption be revised to use the more realistic mid-case CHP assumption.<sup>2</sup> The low incremental CHP assumption that there will be no net change in CHP resources is inconsistent with state CHP policy goals, the assumptions used in prior LTPP proceedings, as well as settlement agreements approved by this Commission.<sup>3</sup> The AB32 Scoping Plan set a policy goal of 4,000 MW of new CHP resources by 2020, and the Governor's Clean Energy Jobs Plan requires 6,500 MW of new

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<sup>2</sup> Hedman, Bruce, Ken Darrow, Eric Wong, Anne Hampson. ICF International, Inc. 2012. *Combined Heat and Power: 2011-2030 Market Assessment*. California Energy Commission: CEC-200-2012-002, p. 4.

<sup>3</sup> California Public Utilities Commission. 2010, October 8. *CHP Program Settlement Agreement Term Sheet*. Retrieved from <http://docs.cpuc.ca.gov/PUBLISHED/GRAPHICS/124875.PDF>, p. 5.

CHP by 2030. While it is reasonable to consider contingencies for falling short of goals, assuming that there will be *no progress at all* toward meeting these standards is unrealistic, especially given the Commission-adopted Settlement Agreement on CHP with the IOUs, and resolution of the CHP feed-in tariff at FERC.

(4) Using the mid-level incremental PV assumption in the base case is also overly conservative. The California Solar Initiative and New Solar Homes Partnership have the respective goals of installing 1,940 MW and 360 MW of solar in IOU service territory by the end of 2016. Even with close to five years remaining in these programs, the CSI is already approaching full subscription in some IOU service territories.<sup>4</sup> The mid-case incremental PV value assumes the addition of a mere 300 MW beyond these programs. Due to continued cost declines and policy support, the Solar Energy Industry Association projects that distributed generation in California will reach 5.3 GW by 2016 alone.<sup>5</sup> This analysis recognizes that as costs continue to decline, financial incentives become increasingly less determinative of the decision to install small scale PV. The mid-case scenario erroneously projects that solar growth will be reduced to a trickle absent financial incentives. Scenarios assuming a middle-of-the-road projection for incremental PV should use the high-case assumption. Scenarios that are built on a pessimistic view of PV (e.g., the low load scenario) should use the mid-case assumption value.

(5) We expect that the values for the incremental EE assumptions will be updated as noted at the planning scenario workshop. However they change, the high DG scenario should include the high EE assumption. The same economic conditions that make distributed generation appealing to ratepayers will spur interest in increasing energy efficiency in homes and businesses, since these resources can help ratepayers manage rising energy costs.<sup>6</sup>

(6) Although Staff's incorporation of the DRECP into the environmental scenario is an improvement, we have ongoing questions regarding how the development focus areas will be incorporated into the LTPP, and by implication, the CAISOs' transmission planning processes. Moreover, given the large-scale implications of the DRECP in terms of land use prioritization, this process should also be included in the base scenario. Furthermore, preference for projects on disturbed lands should also be incorporated into the base scenario as there continues to be more and more recognition of the high direct and indirect costs and project viability concerns associated with large-scale projects on undisturbed land with high value to protected biological species.

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<sup>4</sup> See, Go Solar California Program Goals, *available at* [http://www.californiasolarstatistics.ca.gov/reports/agency\\_goals/](http://www.californiasolarstatistics.ca.gov/reports/agency_goals/).

<sup>5</sup> SEIA, California DG and Utility Solar Capacity (May 2012) (attached hereto as Attachment A).

<sup>6</sup> Science Applications International Corporation. 2002, December 30. San Diego Regional Energy Infrastructure Study, p. 5-1. Retrieved from <http://www.sandiego.gov/environmental-services/energy/news/30yrstudy.shtml>.