

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)

Clean Coalition Policy Comments on Revised Proposed Scenarios in R. 12-03-014

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Pursuant to the September 25, 2012 “Revised Assigned Commissioner’s Ruling Setting Forth Standardized Planning Scenarios For Comment,” to the May 17, 2012 “Scoping Memo and Ruling of Assigned Commissioner and Administrative Law Judge,” the Clean Coalition respectfully sets forth these comments on the revised Proposed Scenarios.

I. INTRODUCTION

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, minimize environmental impacts, and enhance energy security.

To achieve this mission, the Clean Coalition promotes proven best practices, including the vigorous expansion of Wholesale Distributed Generation (WDG) — a market segment defined by renewable energy generation that connects to the distribution grid and serves local load. The Clean Coalition drives policy innovations that remove barriers to effective procurement, interconnection, and compensation. Furthermore, the Clean Coalition actively supports the deployment of Intelligent Grid (IG) market solutions — such as demand response, energy storage, forecasting, and communications — to complement higher levels of clean local energy generation.

The Clean Coalition is active in proceedings at the California Public Utilities Commission, the Federal Energy Regulatory Commission, and related federal and state agencies

throughout the United States. The Clean Coalition also designs and implements WDG and IG programs for local utilities and governments around the country.

Long Term Procurement Planning (LTPP) has long been a policy platform of the Clean Coalition, with the specific goal of ensuring that LTPP reflects a long-term plan for the major deployment of much needed cost effective and rapidly deployable WDG projects, in concert with IOU planning and future proofing of distribution grid upgrades to facilitate full deployment of WDG as well as intelligent grid solutions. We also remain committed to ensuring that California's renewable portfolio standards (RPS) mandates are fully included in LTPP, both at the current 33% 2020 standard and in preparation for ongoing RPS trajectories towards 2030 and 2050.

The Clean Coalition recognizes that planning assumptions are based on current information and planning ten to twenty years into the future can pose some difficulty due to a variety of factors. However, based on the information available today, the Clean Coalition believes it necessary and appropriate to incorporate several adjustments and additional considerations as detailed in the following comments.

II. **Renewable Portfolio Standard (RPS)**

The Clean Coalition strongly supports the inclusion of a sensitivity scenario that anticipates a higher RPS by 2030; this is a very positive step and should take priority in this proceeding, as recommended by the Sierra Club/UCS and NRDC. We disagree however with the assumption of a 2030 RPS set at 40%. While demonstrating some expectation of increased adoption of renewables, this not only falls short of what is required to meet AB 32 emission requirements but is far below the adoption rate for the current decade. There is no foundation for planning on a reducing the rate of renewable adoption as renewable energy cost decline and the direct and indirect costs of conventional sources rise. A very conservative assumption would be keeping the RPS percentage for the second planning period aligned with long term State policy goals representing an average of just over 1.5% increase per year from 2020 to 2050 or 48% by 2030. The Clean Coalition supports the higher 55% assumption recommended by other parties (UCS and the Sierra Club) as appropriate for a sensitivity scenario to establish comparison of the

increasing renewable deployment curve through 2020 against a simple flat line trajectory of current policy mandates. This is also consistent with DOE technology cost goals, market price trends, prices already realized in more mature markets, and the rapid advances seen in integration technologies supporting the capacity to cost effectively reach higher RPS targets at a faster rate. Adoption of a 2030 40% RPS scenario would instead constitute a radical decline from current adoption rates that is not supported by either cost benefit projections or State policy objectives.

Outside of the RPS itself, California faces critical facilities replacement needs related to OTC and SONGs retirement schedules combined with current indefinite loss of SONGs interim capacity. As we plan long term investment in replacing this capacity we must ensure such investment is aligned with portfolio goals throughout the expected useful life of these facilities to avoid wasteful redundancies or sunk costs that conflict with long term goals. We must be able to pursue planning options to fill this void with alternative resources such as renewables that can be deployed near load and online within a much shorter amount of time, often more cost effectively and with greater flexibility than with central station generation and its associated transmission capacity requirements.

III. **Energy Storage**

The Clean Coalition is a strong advocate for intelligent grid resources, as we have stated throughout this proceeding. A valuable and even crucial element in creating a more flexible and intelligent grid is the inclusion of Energy Storage (ES) as a preferred resource. With this in mind, the Clean Coalition recommends that ES be included in the future scenarios, as a “preferred resource” alongside Demand Response and distributed generation. When used in conjunction with distributed generation and demand response, energy storage provides the following benefits:

- Quick modular installation and with short lead time;
- Zero emission grid services and support;
- Precise locational targeting benefits;
- Faster and more accurate response;
- Relocation flexibility;
- Reduced “sunk cost” risk

The full range of DG + IG options, which includes energy storage, represents highly responsive marginal demand and supply; this is a cost-effective solution that should be fully considered in

the long-term procurement planning process. ES deployment is anticipated to ramp up rapidly in the later years of this planning cycle in support of generation, both in direct application for firming and shaping of intermittent resources, and in additional flexibility services. This includes those provided by large scale aggregated charging control of California's 1,000,000 electric vehicle fleet target. Some services such as localized demand control and ramping support may be categorized separately from other provided by ES, but all should be clearly reflected within the overall resource modeling and procurement requirements.

Lastly, in light of the fact that ES is currently being studied in R. 10-12-007 (in conjunction with LTPP), the Clean Coalition ultimately recommends that this LTPP proceeding include a sensitivity on ES. The timeline for this LTPP stretches out over the course of twenty years, and we believe that ES should be fully considered and realized in the interest of continuing to move California forward, consistent with the developing technology to support the rigorous use of cost effective solutions.

IV. Specific Scenario/Sensitivity Recommendations

Scenarios: WDG, load, and transmission impacts

Transmission dependence or use may be improperly assumed for WDG in the scenarios, which would result in significant errors in results regarding the location of generation and related transmission capacity requirements and scenario costs. PV appears to be assumed as either load reducing small PV or large PV delivered over transmission. WDG is primarily comprised of procured PV connected to the Distribution Grid and not utilizing transmission.

The retirement of existing facilities on the transmission system will free up the transmission capacity used by these facilities, and full consideration should be given to utilizing this capacity in meeting LTPP requirements. Likewise, the deliverability and RA capacities associated with these facilities should be considered for reassignment to existing and planned resources, with priority given to those serving load with the least reliance on transmission capacity.

Sensitivity: Replicating the TPP Process at the ISO

The Clean Coalition recommends using the TPP process at the ISO as a point of reference only and not to be explicitly duplicated. We support the increased information flow between the CPUC and the ISO for planning purposes especially in regards to transmission planning. As was discussed at the August 24th workshop, transmission capacity and planning is crucial to California's energy needs being met. An increase of information and transparency between these entities is beneficial to all involved. However, this scenario: "departs in a fundamental way from the TPP by introducing retirement forecasts for existing generation based on the Mid values from the planning assumptions. Introducing retirement forecasts is consistent with concerns about future resource availability."¹ The mid values also create substantial risk of under-procurement if retirement occurs earlier. Nuclear generation is also assumed to be online throughout this period. We have every reason to believe that nuclear generation may remain offline, which we will describe in more detail below. The possibility of retirement should be considered high, in reference to SONGS and other facilities, and steps should be taken to ensure that available renewable resources are used as viable options to curb any shortfalls that will occur with these retirements. It is important to mitigate such risks, and advancing early deployment RPS compliance procurement is the best approach to doing so.

At the same time, the failure to incorporate realistic assumptions regarding WDG, and increased energy efficiency and demand response will lead to excess procurement results in other regions. If the TPP scenario is to have reference value, these adjustments should be incorporated.

Scenario: High Distributed Generation/High Demand Side Management Scenario & 12,000 MW of DG Goal

The Clean Coalition applauds the staff for including a high DG scenario with acknowledgement of the 12GW of DG goal from the Governor's office. As previously stated, the Clean Coalition is a strong advocate for the use of DG + IG resources and the inclusion of

¹ REVISED ASSIGNED COMMISSIONER'S RULING SETTING FORTH STANDARDIZED PLANNING SCENARIOS, September 25th, 2012, pg 16.

Governor Brown's 12 GW goal, as is CEJA and the Community Environmental Council. The broad international success of high WDG strategies in achieving rapid deployment of renewables and driving down local costs is a prime inspiration in the Clean Coalition's creation. As most recently illustrated in a report from LBNL², California can achieve dramatic reductions in renewable energy costs if implementing deployment at scales seen in leading markets such as Germany.

However, commercial scale wholesale DG PV, small scale net metered DG, CHP and various Demand Response systems each have distinct attributes that should be reflected, optimized, and clearly identified in a high implementation scenario, in the associated RPS calculator scenario development and ISO modeling. The benefits of these resources need to be separately captured in order to fully appreciate their capabilities. This can only be achieved through separate sensitivities for each resource. The Clean Coalition strongly recommends that the 12GW goal should be considered in all planning scenarios/sensitivities that include DG (including the base case). Failure to fully consider the likelihood of this generation being online within the planning period will lead to planning for unnecessary alternate generation procurement in its place, with associated large and unrecoverable capital investment commitments.

Clean Coalition also strongly supports the shift in policy favoring a higher balance of distributed generation resources over large-scale centralized generation and its associated operational and capital risk impacts. As is clearly evidenced in the challenges presented by unscheduled shutdowns of major generator facilities, N-1 and N-2 transmission line loss scenarios, and the actual experience of previous wide area blackouts, concentrating production and delivery of energy creates risky reliance on critical infrastructure, and high cost investment in redundancy at that scale. Greater emphasis on locally distributed resources dramatically reduces such risks, and a more balanced portfolio of local and transmission based resources leverages the complimentary qualities of each toward a more resilient and cost effective energy supply. Our hope for this scenario is for the parties and regulatory bodies to recognize the

² Why Are Residential PV Prices in Germany So Much Lower Than in the United States? A Scoping Analysis. Seel, J., G. Barbose and R. Wiser. September 2012 <http://eetd.lbl.gov/ea/emp/re-pubs.html>

potential cost savings from distributed resources, especially when the reduced procurement risk, reduced transmission investment requirements, and added locational benefits are fully considered. The benefits of DG have yet to be fully realized by this Commission and a paradigm shift in California's energy policy to support DG and other preferred resources is in the best interest of all involved in this process.

Sensitivity: Early SONGS Retirement

As the Clean Coalition has continuously stated throughout this proceeding, we believe that this Commission should include the possibility that SONGS remain offline. At a recent Board of Governor's meeting held at the ISO, the discussion surrounding SONGS yielded the following information:

- Reactor 1 was permanently retired in 1992;
- Reactor 2 is currently down and has no estimate for restart;
- Reactor 3 is currently down, requires extensive repair, and is extremely unlikely to return to operation for at least several years if ever.

In addition to SONGS, the ISO discussed the future of Huntington Beach. Huntington Beach 3 & 4, which had formerly been retired, were turned on this year to handle summer demand.

The CAISO CEO Steve Berberich is certain 3 and 4 will not be available to generate electricity by next summer and plans to turn Huntington Beach into increased voltage support. The SONGS situation is an interim planning issue, which proves that long term planning needs to shift away from the status quo. Diablo Canyon may also not be renewed, which should also be discussed and addressed more heavily.

This sensitivity in particular, in light of these realities, should focus on local capacity requirements, which is of particular importance in Southern California. These scenarios in general and this sensitivity specifically should focus on all viable options available in a realistic timeframe.

V. **Conclusion**

The Clean Coalition thanks this Commission for the opportunity to express our recommendations and we look forward to the continued collaboration with the Energy Division staff and other parties in this proceeding.

Respectfully submitted:

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