



Comments of Pacific Gas and Electric Company

Subject: 2012-2013 Renewable Portfolio Assumptions

Submitted by	Company	Date Submitted
<i>Jason Yan</i> jason.yan@pge.com 415-973-4004	<i>Pacific Gas and Electric Company (PG&E)</i>	<i>April 16, 2012</i>

Introduction

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the proposed 33% Renewable Portfolio Assumptions for use in the 2012/2013 California Independent System Operator (CAISO) Transmission Planning Process (TPP).

As a guiding principle, the CAISO should strive to utilize as a base case a resource portfolio that best approximates a likely and realistic renewable resource development scenario, so that the resulting transmission plan can facilitate the achievement of the state's renewable procurement goals. To accomplish this, the CAISO should use as a base case, a portfolio that takes into account cost, commercial realities, and environmental considerations, with the most up-to-date information.

PG&E believes that the IOU procurement process, combined with the CPUC oversight and approval process, is best suited to appropriately balance these considerations through its least-cost, best-fit mandate. A base case that weights commercial interest most heavily is most likely to properly align with the actual development of renewable energy in the state.

Therefore:

- 1) **PG&E recommends that the CAISO use the CPUC's Commercial Interest Scenario as the Base Case for the 2012/2013 TPP**
- 2) **The Base Case selected should reflect the most up-to-date and available information from the latest March 2012 Project Development Status Report (PDSR) and Compliance Progress Report**
- 3) **The CAISO should consider whether deliverability of the Base Renewable Resource Portfolio should be an explicit goal of the policy driven planning study**
- 4) **For future TPP cycles, PG&E recommends that the CAISO study a scenario that takes into account a range of loads and transmission utilization rather than a single**

point forecast to account for the uncertainty in determining California's net short position

Comments of PG&E

PG&E Recommends Using the Commercial Interest Scenario as the Base Case

Of the scenarios presented by the CPUC, the Commercial Interest Scenario provides the most balanced weighting of considerations between cost, commercial realities, and environmental impact. This scenario is recommended as the Base Case, as it best selects the projects for which a power purchase agreement (PPA) has already been signed and best reflects the renewable generation expected to achieve commercial operation. In addition, PG&E supports using a base case that uses the most up-to-date information to reflect current commercial realities. The CAISO should update the project list with the projects that have been executed in 2011 and which are included in the March 2012 PDSR and Compliance Progress Report.¹

The Cost-Constrained Scenario Relies on Generic Costs that Might Not Reflect Commercial Realities or Least-Cost Best-Fit Principles

Because the Cost-Constrained Scenario uses generic costs instead of actual costs seen in the market, this scenario has the potential to bias the Base Case toward a certain set of project areas based on outdated information that does not align with current market realities. Furthermore, using generic costs that have been updated recently has the potential to bias the Base Case away from areas with existing contracts that were signed when prices were higher.

By doing so, this scenario does not select some renewable generation projects that have already been established in the discounted core. Further, the Cost-Constrained Scenario leaves out some renewable generation projects for which a PPA has already been signed and approved by the CPUC. To this extent, the results of the Cost-Constrained Scenario run counter to the CPUC's own analysis as to what generation projects are needed to meet the renewable goals.²

A reliance on cost as the primary criterion does not sufficiently take into account the viability of generation projects that are included within the Scenario. For example, the cost alone is not an indicator of that project's ability to achieve commercial operation. Rather, generation project viability depends heavily on acquiring a PPA, project financing, and obtaining necessary permits. Furthermore, cost is a consideration in PG&E's decision to select PPAs and the CPUC's decision to approve PPAs. Therefore, a scenario that takes commercial interest as the primary viability screen would be taking cost and environmental factors into account since both are embedded within the project shortlisting and PPA approval processes, and would actually better approximate a least-cost-best-fit renewable resource build-out scenario.

PG&E is Concerned with the Large Amount of "Non-CREZ" Generation Identified in the Cost-Constrained Portfolio

PG&E is concerned with the significant increase in MWs identified as "non-CREZ" in the scenarios, particularly in the Cost-Constrained Scenario. Based on the estimate of non-CREZ

¹ https://www.pge.com/regulation/RenewablePortfolioStdsOIR-IV/Other-Docs/PGE/2012/RenewablePortfolioStdsOIR-IV_Other-Doc_PGE_20120301_230170.pdf

² Inclusion in the discounted core and/or CPUC approval of a PPA implies CPUC acknowledgement that a resource is needed to meet the renewable goals.

DRAFT

MW by county that the CPUC presented at the CAISO stakeholder meeting on April 2, 2012, it seems that a large portion of these MWs are located in Riverside and Kern Counties, and to a smaller (but still significant extent) in Imperial and San Bernardino Counties. If the assumption is that these non-CREZ MWs will not need any new transmission when ranking which MWs are selected, at what point will the CAISO model the transmission required to interconnect these projects and ensure the reliable delivery of their energy?

PG&E suggests that for transmission planning purposes, the CAISO consider including the Riverside county MWs within the Riverside East CREZ, Kern county MWs in Tehachapi or Kramer CREZs, Imperial County MWs in Imperial North or Imperial East CREZ, etc. Or perhaps it would make sense to define CREZ boundaries as “fuzzy” so that projects within X miles of the CREZ boundary are included in that CREZ for planning purposes.

Alternatively, PG&E requests that the CAISO explain the expected impact of these non-CREZ MWs and why it thinks it is appropriate to model them as needing no new transmission.

No Matter Which Scenario is Chosen as the Base Case, PG&E Recommends the Following:

1. The CAISO should use the most up-to-date commercial information

At the April 2, 2012 Stakeholder meeting, the CPUC staff member explained that the updated scenarios should take into account all PPAs executed prior to December 31, 2011. To this extent, at a minimum, the scenarios should use the most recent and publicly available Project Development Status Report (PDSR) and Compliance Progress Report which were submitted to the CPUC in March 2012. The current scenarios are outdated, as they do not include PPAs that have been executed since the August 2011 PDSR (e.g., Shiloh IV Wind Project, North Sky River, Copper Mountain II, FRV Orion Solar, Recurrent Kansas South, and Westlands Farms)

2. A scenario with higher loads and additional transmission usage be studied

The four renewable portfolios suggested all are based on a single load forecast. In order to examine a broad range of scenarios, with implications as to the amount of transmission required, the CAISO should consider a scenario with higher loads. One suggestion is that the LTPP has developed a trajectory-high load scenario as part of 2010 LTPP. This high load scenario is relatively simple to derive (loads increased by 10%) and the load is much closer to the loads assumed by the IOUs in their joint submittal to the CPUC in the LTPP process. In addition, the CAISO should craft a scenario based on the IOUs’ joint case.

3. A more transparent process is needed for future modifications to these portfolio scenarios

PG&E appreciates the recent CPUC workshops aimed at making the portfolio and scenario development process more open, and attempting to ensure better coordination among the CAISO, CPUC, and CEC, and with stakeholders. PG&E appreciates the opportunity to provide comments on these assumptions at this stage of the planning process in preparation for the 2012 LTPP and 2013-2014 TPP.

DRAFT

PG&E recommends that deliverability of the Base Renewable Resource Portfolio should be an explicit goal of the policy driven planning study, as it seems to have been in the 2011-2012 TPP

PG&E notes that in the 2011-2012 Transmission Plan, section 4.10, the CAISO refers to deliverability of the 33% portfolios.

Section 4.10 of the 2011-2012 TPP, page 343 - Testing Deliverability For Portfolios³: An assessment was performed to verify the deliverability of the renewable resources modeled in the base portfolio for resource adequacy purposes. The objectives of the deliverability assessment are as follows:

- Model the target expanded maximum import capability (MIC) for each intertie to support deliverability for the MW amount of resources within each intertie in the base portfolio.
- Determine the deliverability of the new renewable resources in the base portfolio located within the ISO balancing authority.
- Identify network upgrades needed to support full deliverability of the new renewable resources and the target expanded MIC.

However, that objective is not explicit in the 2012-2013 TPP Study Plan, which states two objectives:

Page 6 of the CAISO's 2012-2013 TPP Study Plan⁴: For purposes of the TPP study process, this high-level objective is comprised of two sub-objectives: first, to support the delivery of 33% renewable energy over the course of all hours of the year, and second, to support Resource Adequacy (RA) deliverability status for the renewable resources outside the ISO balancing authority area that are needed to achieve the 33% energy goal.

PG&E recommends that deliverability of the renewable resources in the base portfolio that are located within the CAISO BAA be included as an explicit goal, as generally, the resources that will be used to satisfy the renewable goals should have the opportunity to count toward meeting the resource adequacy goals as well. Further, as the CAISO implements the Transmission Planning Process / Generator Interconnection Process Integration and the Deliverability for Distributed Generation stakeholder initiatives, identification of transmission needed to enable the deliverability of the renewable resource portfolios and the generation projects needed to integrate those renewables will be essential to meeting the public policy goals of the state.

The methodology for identifying distributed generation locations and amounts could be improved

³ <http://www.caiso.com/Documents/Board-approvedISO2011-2012-TransmissionPlan.pdf>

⁴ <http://www.caiso.com/Documents/2012-2013ISOTransmissionPlanningProcessStudyPlan.pdf>

DRAFT

PG&E understands that the distributed generation assumptions were based on a screen of peak distribution circuit load, using a range of assumptions about how much DG could be accommodated by the circuits (the range was 15% to 30% of peak load). This methodology seems to assume that no or minimal distribution upgrades would be necessary for MW amounts below the peak-load threshold. It further assumes that regardless of geography, distribution level projects are cost effective. This methodology could be improved.

Conclusion

PG&E recommends that the CAISO use the recently updated Commercial Interest Scenario as the base case. Further, PG&E recommends that the CAISO study a scenario that takes into account higher loads and transmission utilization. Use of such assumptions are important for developing a transmission plan that identifies transmission projects that are adequate not just to interconnect the renewable generation needed to meet the State's renewable goals under a single set of load and resource assumptions, but also to deliver output to load and to operate the system reliably under a variety of possible futures.