

May 21, 2013

**VIA E-MAIL DOCKET@ENERGY.
CA.GOV**California Energy Commission
Dockets Office, MS-4
Re: Docket No. 13-IEP-1E
1516 Ninth Street
Sacramento, CA 95814-5512

Re: 2013 Integrated Energy Policy Report: Lead Commissioner Workshop on California Western States Transmission Planning and Permitting Issues – Comments of Pacific Gas and Electric Company

I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the California Energy Commission's (CEC) May 7 Lead Commissioner Workshop titled "Western States Transmission Planning and Permitting Issues" (May 7 Workshop). In Section II of these comments, PG&E responds to the questions posed to the panel on this subject, convened during the course of the May 7 Workshop. This written input supplements PG&E's verbal comments provided during the panel.

II. PG&E RESPONSE TO PANEL QUESTIONS

Question 1: What challenges have been created to date by the lack of synchronization of generation and transmission permitting to achieve renewable policy goals? What additional challenges do you foresee as California considers higher levels of renewables?

Response 1: As stated at the May 7 Workshop, PG&E does not rely on utility developed generation projects to meet its incremental Renewable Portfolio Standard (RPS) targets; instead PG&E relies primarily on existing competitive procurement processes, such as the planned approximately 1,000 gigawatt-hours (GWh) target in its current 2012 RPS Solicitation. Thus, for Question 1, the renewable developers assembled by the CEC can best speak to the challenges created by a lack of synchronization from a project perspective.

However, the lack of synchronization of generation and transmission does add uncertainty into the procurement process. In the worst cases, viable projects can

be scrapped because of a failure to synchronize generation and transmission permitting. Moreover, the transition to greater reliance on renewable generation in general creates unique transmission challenges.

Renewable resource areas tend to be located in places distant from population centers and, as a result, development in these areas often requires new transmission lines. Long-term renewable energy planning can help to remedy transmission and interconnection issues. If utilities know where the renewables will be located, then upgrades can be planned accordingly. Similarly, if planning entities, such as the California Independent System Operator (CAISO), know sooner where renewable development will be located, then transmission upgrades can be planned with more certainty.

High renewables penetration could pose several challenges to California's electric grid. In particular, as intermittent and non-dispatchable renewable resources are added to meet the state's 33 percent RPS goal, conventional resources, which have traditionally provided operating flexibility to the system, are being displaced. As a result, significant operational work remains to be done to integrate the increasing amounts of intermittent generation on the electric grid and to learn how to operate the electric grid with significantly more intermittent renewables connected to both the transmission and distribution systems.

Question 2: How has your specific generation project been affected by this lack of synchronization?

Response 2: Please see PG&E's response to Question 1 above. PG&E does not rely on utility developed generation projects to meet its incremental RPS targets. The renewable developers assembled by the CEC can best speak to the challenges created by a lack of synchronization from a project perspective.

Question 3: What are the major causes of generation permitting being out of step with transmission permitting?

Response 3: There are three key components to renewable project development: 1) project permitting; 2) the power purchase agreement with the utility; and 3) the interconnection process, including transmission permitting. Keeping all three of these processes moving simultaneously is a challenge. For example, utilities can only begin engineering and environmental review of transmission upgrades once the CAISO has completed the interconnection study process; however the study process takes approximately one-and-a-half years to complete, and negotiation of the interconnection agreement frequently adds time to the process. Moreover, the utility's environmental permitting process for transmission upgrades frequently takes much longer than the environmental planning process for a generator because of the scale of transmission upgrades and the nature and scope of the

California Public Utilities Commission (CPUC) review process (e.g., Certificate of Public Convenience and Necessity or CPCN).

Permitting for the generation project can usually be done within 1 to 3 years, depending on the size and impact of the project; negotiating the PPA can be accomplished along a similar timeframe. Transmission generally requires 3 to 10 years to move through the interconnection study and permitting process in California and, because of this, becomes the critical path for many projects. Additionally, transmission planning for generation has tended to be conservative to contain transmission costs, and therefore the planning is reactive based on current project interconnection requests rather than proactive in anticipation of future generation.

Question 4: What are the most effective solutions for addressing these causes and challenges in the short term? In the longer term?

Answer 4: Short-Term: As aptly described by Kevin Richardson of Southern California Edison (SCE), alleviating congestion in the interconnection queue would reduce delay and add certainty to transmission and renewable development.¹ CAISO has made progress in addressing congestion in the interconnection queue. As of February 2013, the CAISO queue held renewable projects totaling approximately 34,298 megawatts (MW). This is a dramatic decrease from July 2011, when the interconnection queue held renewable projects totaling approximately 70,000 MW. However, this is still more than three times the 10,200 MW of incremental generation capacity needed to meet the 33 percent RPS.² Moreover, much of the incremental generation capacity needed to meet the 33 percent RPS has already been contracted by the investor-owned utilities (IOUs), so the universe of projects with contracts is likely to remain relatively static.

As a result, the generation interconnection process has a high failure rate, which impedes the interconnection of viable projects that could otherwise move forward. The CAISO and utilities must consider all queued projects as a possibility until they officially withdraw from the queue. Lingering speculative projects can lead to unrealistic study results. State policymakers are encouraged to work with the CAISO, the state's utilities, and the Federal Energy Regulatory Commission (FERC) in better managing the processing of interconnection requests.

¹ Richardson, Kevin. 2013. DFA Suitability and Transmission Planning, website:

http://www.energy.ca.gov/2013_energy_policy/documents/2013-05-07_transmission_workshop/presentations/04_Richardson_DFA_Suitability-Transmission_Planning.pdf

² See page 2 of Casey, Keith. 2013. Memorandum: Briefing on Renewables in the Generator Interconnection Queue and Downsizing Process Status, website:

http://www.caiso.com/Documents/BriefingRenewableGenerationISO_GeneratorInterconnectionQueue-Memo-Mar2013.pdf

Long-Term: As stated above, long-term, renewable energy planning can help to remedy interconnection issues. This may be accomplished by aligning the planning process for transmission upgrades more closely with the planning process for generation. Planning improvements to the grid must consider the long lead time for development of large infrastructure projects like new transmission lines or new power plants. Planning must consider how to begin to advance these long lead time projects in the face of uncertainty, while not unduly burdening customers with the costs of investments that are not needed.

PG&E generally supports a zone approach for development that is informed by and could drive future transmission planning. As an example, PG&E continues to participate in a multi-stakeholder committee to help develop the Desert Renewable Energy Conservation Plan (DRECP), a plan to streamline environmental permitting to expedite solar, wind, and geothermal projects in southern California desert regions while minimizing impacts to threatened and endangered species. The DRECP is a model of a planning process that attempts to comprehensively address renewable project development, and can inform long-term transmission planning.

PG&E supports collaborative and comprehensive planning processes that will help provide similar outcomes as the DRECP, including landscape level approaches to programmatic permitting that identifies appropriate mitigation and transmission. Identifying appropriate areas for renewable energy development—for example, those with low biological value, low value agricultural land and brownfields—and adopting a “zone” approach for development for the DRECP could better inform and drive future transmission planning both within the DRECP and throughout the state.

In addition, DRECP transmission studies complement the existing and on-going transmission planning activities in California. Transmission studies at the CAISO and long-term resource planning efforts at the CPUC generally look out at least 10 years into the future. DRECP transmission analysis takes a longer-term view about transmission needs which is important for making good decisions about transmission investment in the state, but it could be better coordinated with the approved CPUC renewable resource portfolios and the policy driven upgrades in CAISO’s annual transmission planning process so medium term transmission studies can start to plan for regional transmission needs impacted by implementation of the DRECP.

III. CONCLUSION

PG&E appreciates the opportunity to provide input on transmission and generation permitting issues for renewable projects and looks forward to participating in additional workshops. Should you have any questions about these comments, please do not hesitate to contact me.

Sincerely,

/s/

Matthew Plummer

cc: J. Grau (Judy.Grau@energy.ca.gov)
L. Green (Lynette.Green@energy.ca.gov)