



June 26, 2013

Geisha Williams  
Executive Vice President, Electric Operations

Fong Wan  
Senior Vice President, Energy Procurement  
PG&E Corporation  
77 Beale Street  
San Francisco, CA 94105

Re: Interconnection and Network Upgrade Construction Delays and Network Upgrade Costs

Dear Ms. Williams and Mr. Wan:

Recently, the Large-scale Solar Association (LSA) surveyed its members and learned of a serious emerging problem -- widespread post-Generation Interconnection Agreement (GIA) delays in the construction timelines of interconnection facilities and network upgrade projects that are the responsibility of the Participating Transmission Owner (PTO). These delays are placing a significant number of renewable projects at risk of delay and possible contract default. To date, LSA is aware of nearly two-dozen otherwise viable large-scale projects with Power Purchase Agreements (PPAs) with California IOUs that are facing interconnection-related or network upgrade construction delays that could lead to projects being unable to meet Commercial Online Dates (CODs) guaranteed under approved PPAs or delays in becoming Resource Adequacy resources. These PTO construction delays place these PPAs and thus the generation projects at significant risk.

LSA-member projects are also seeing significant increases in Network Upgrade costs identified in interconnection studies. Inflated Network Upgrade cost estimates in the tens and hundreds of millions of dollars – even those that are likely to be reduced as the projects drop out of the queue – lead to uncertainty in the market and pose a threat to obtaining and retaining financing.

Both of these issues are discussed in further detail below.

### **Interconnection Delays**

LSA is concerned about the potential consequences that post-GIA PTO transmission construction delays may have on both the solar projects and the state's RPS goals. These delays are beyond developer control and in some cases represent years of delayed

transmission construction for CAISO-approved transmission projects. Furthermore, PTO transmission delays may put otherwise viable projects at risk of missing guaranteed CODs or delay the date by which a project can be declared a Resource Adequacy resource due to delays in the construction of delivery network upgrades. These delays can make individual projects unfinanceable, put them at risk of failure, and generally harm the renewable industry by inserting significant uncertainty in the development process and by undermining otherwise viable projects.

A significant portion of the transmission construction delays appear to be related to limited staff resources in PG&E's Electric Generation Interconnection (EGI) and Project Management departments dedicated to the engineering, permitting, and construction necessary to deliver committed interconnection facilities and upgrades on schedules specified in interconnection studies and GIAs. LSA wants to ensure that PG&E is aware that the failure to allocate sufficient resources to transmission construction is beginning to have consequences for both the solar projects impacted and the state's ability to meet its RPS goals.

If the situation does not improve, these projects may miss both their CODs and Investment Tax Credit (ITC) deadlines (thus losing both their PPAs and their ITC eligibility) or at minimum be challenged in meeting Resource Adequacy contract provisions due to delayed delivery network upgrades. Contract termination poses a risk to both the utility and developers. It may also have consumer implications to the extent that ITC eligible projects falter.

### **Network Upgrade Costs**

LSA is also concerned with continuing exponential increases in network upgrade costs. For example, the Cluster 3 and 4 Phase II studies showed significant per mile reconductoring cost increases. Phase II Study costs far exceeded the posted PTO Per-Unit Costs – which were offered by PG&E just last year as indicative of actual project costs – with very little explanation of the increases. Reconductoring costs ranged from fifty percent above the published per mile cost estimates to more than four times those costs. LSA believes that further oversight and incentives are needed to ensure that upgrade costs are reasonable and that PTOs are expending resources efficiently.

### **Potential Solutions**

LSA would like to discuss possible solutions to these issues with PG&E, with the goal of bringing greater transparency and efficiency to the process. We have begun exploring possible ways to address transmission risk and are interested in working with PG&E on proactive solutions. Our preliminary recommendations include:

- Allocate greater resources to the EGI, Project Management, and other project services necessary to ensure that PG&E has sufficient resources to meet its existing agreements;
- Increase overall transparency of the permitting and construction of Network Upgrades, which will help identify problem areas and allow developers to better manage risk;

- Facilitate allowing project developers to self-build stand-alone network upgrades and pursue competitive solicitations for third-party development of network upgrades;
- Establish mechanisms for Transmission Owners to collect information to prioritize Network Upgrades for the most viable projects; and
- Amend the pro forma GIA to address PTO delays. For example, create incentives and/or penalties tied to meeting transmission construction commitments.

We look forward to talking with you about these issues at your earliest convenience.

Sincerely,



Shannon Eddy  
Executive Director  
Large-scale Solar Association

cc: Thomas Bottorff, Senior Vice President, Regulatory Affairs, PG&E  
Eric Eisenman, Director of FERC and CAISO Relations, PG&E  
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