

From: St. Marie, Stephen  
Sent: 11/25/2012 11:52:38 AM  
To: Jacobson, Erik B (RegRel) (/O=PG&E/OU=Corporate/cn=Recipients/cn=EBJ1)  
Cc:  
Bcc:  
Subject: Re: A.11-07-008 LLNL 21st Century Energy Systems -- Questions from  
Commissioner Sandoval for All-Party Meeting of November 26

Thanks, Erik  
Stephen St Marie  
California Public Utilities Commission  
Sent from my mobile device  
415-940-1984

**From:** Jacobson, Erik B (RegRel) [mailto:EBJ1@pge.com]  
**Sent:** Sunday, November 25, 2012 09:35 AM Pacific Standard Time  
**To:** St. Marie, Stephen  
**Subject:** RE: A.11-07-008 LLNL 21st Century Energy Systems -- Questions from Commissioner Sandoval for All-Party Meeting of November 26

Thanks Steve. Here is my updated contact information. Erik

*Erik Jacobson  
Senior Director, Regulatory Relations  
Pacific Gas and Electric Company  
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**From:** St. Marie, Stephen [mailto:Stephen.St.Marie@cpuc.ca.gov]  
**Sent:** Friday, November 23, 2012 10:07 PM  
**To:** Jacobson, Erik B (RegRel)  
**Subject:** RE: A.11-07-008 LLNL 21st Century Energy Systems -- Questions from Commissioner Sandoval for All-Party Meeting of November 26

Erik, it seems my contact info for you is way out of date, showing you at the Corporation instead of in your current position at the Utility. Would you please send

me your updated contact info?

-- Steve.

**From:** St. Marie, Stephen  
**Sent:** Friday, November 23, 2012 9:46 PM  
**To:** 'EBJ1@pge.com'  
**Subject:** FW: A.11-07-008 LLNL 21st Century Energy Systems -- Questions from Commissioner Sandoval for All-Party Meeting of November 26

Erik,

Earlier this week you called and asked me about what questions Commissioner Sandoval will be asking at the upcoming All-Party meeting on the LLNL proposal. At that time, I told you that I did not know. Well, here are the questions. Best wishes for next Monday's meeting.

-- *Steve*

Stephen St Marie

Policy and Planning Advisor

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**From:** St. Marie, Stephen  
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**Subject:** A.11-07-008 LLNL 21st Century Energy Systems -- Questions from Commissioner Sandoval  
for All-Party Meeting of November 26

Ladies and Gentlemen of the Service List for the Lawrence Livermore National Labs  
21st Century Energy Systems Proceeding, A.11-07-008:

At Monday's All-Party Meeting Commissioner Sandoval wishes to address the following questions. The Commissioner will not ask for general opening statements, but instead, we will go directly to these questions.

1) Cyber security is one of identified the priorities for CES-21. Joint Applicants argue that the collaboration with LLNL will produce cyber security benefits in three areas: (1) information sharing, (2) through leadership via an active Public/Private partnership and (3) commercialization of cyber security operational capabilities.

A) What are the Cyber security benefits of this proposal, and why is CES-21 the best vehicle for achieving them?

B) Does this proposal provide adequate guidance regarding the commercialization of cyber security operational capabilities and the ratepayer/shareholder returns from such activities?

C) Does CES-21 satisfy the legal standards for a state-supervised program to avoid antitrust or unfair business practice challenges to utility information sharing regarding cyber security threats and solutions?

D) Is legal guidance from the California Attorney General's Office or the U.S. Department of Justice required or advisable for the CES-21 proposed joint research, information-sharing, and potential commercialization projects? Does the PD sufficiently analyze the antitrust implications of such joint activities? Would the development of more detailed project proposals be necessary for the U.S. DOJ and California Attorney General's Office to evaluate the proposal and render an advisory letter or opinion?

2) Regarding electric resource planning, the Joint Applicants contend that the CES-21 program and the models it can produce would better represent the complexity and responsiveness of the grid than do utilities' current tools.

A) What is the benefit of models that better represent the grid's complexity and precision?

B) Do the benefits of such models depend on having a more responsive grid and more rampable generation or demand? For example, if we don't have enough ramping generation or demand capability in the system, are the model's benefits limited?

C) Can the computational needs to support such programs and models be satisfied through a mainframe computer? What types of projects require LLNL-type supercomputers?

3) In resource planning, Applicants allege CES-21 may be able to provide illustrative benefits of \$30 million per year in reduced load following costs and \$552 million in reduced resources needed to integrate renewable resources.

A) What is the basis for such estimates and how were those amounts calculated?

B) What resources are needed to realize those benefits, e.g. would more rampable power generation plants producing how many megawatts be needed to achieve these savings?

C) Can those savings be achieved using the utilities', ISO's, or other computational models and resources?

4) Regarding Electric and Gas Operations, Joint Applicants argue that enhanced monitoring and control capabilities will help integrate renewable intermittent resources, reduce the gas pressure in transmission pipes as needed to maintain distribution flows, improve leak detection, and predict pipe breaks.

A) How would CES-21 complement, supplement, duplicate, replace, or be integrated with IOUs current work in these areas?

B) Do the utilities' current systems, equipment, and processes affect the ability of CES-21 to achieve these objectives?

C) Are there less costly ways to achieve these goals in light of planned or proposed upgrades to natural gas pipeline safety, operations, and maintenance?

5) Should a contract of this scope and magnitude be competitively bid under applicable law? Would competitive bidding provide policy or ratepayer benefits?

6) The PD allows for the research project to be approved by tier 1 advice letter filing. A tier 1 advice letter can be approved by energy division staff disposition without any further action from the Commission.

A) Is this level of approval appropriate in light of the PD's lack of specific research proposals other than general illustrative cases?

B) Would it be more prudent to evaluate each proposed research project at the Commission level as project questions, objectives, and methodology are clarified and an application is made?

7) What specific research projects are contemplated under CES-21? Should the Commission authorize a working group to evaluate and propose research projects, determine resources needed, and then apply for authorization to conduct such research?

8) Should this proposal be considered under EPIC in light of EPIC's directive that utilities bear the burden to show why a research proposal outside of the EPIC process should be considered? Has this proposal met that burden?

-- *Steve*

Stephen St Marie

Policy and Planning Advisor

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