

From: Zafar, Marzia
Sent: 12/1/2011 11:29:42 AM
To: Dietz, Sidney (/O=PG&E/OU=Corporate/cn=Recipients/cn=SBD4)
Cc:
Bcc:
Subject: RE: CAES Project Milestones To Date

How much federal funding did you receive for each of these two projects from ARRA and also the PUC???

From: Dietz, Sidney [mailto:SBD4@pge.com]
Sent: Tuesday, November 15, 2011 4:33 PM
To: Zafar, Marzia
Subject: FW: CAES Project Milestones To Date

Marzia --

Here is our quick update on the two StimPac projects.

yours,

sid

From: Redacted
Sent: Tuesday, November 15, 2011 4:18 PM
To: Dietz, Sidney
Subject: RE: CAES Project Milestones To Date

Sid,

I added the job hours to the discussion below.

Redacte

Synchrophasor Project

Description

The purpose of the Synchrophasor Project is to deploy an industry leading system-wide Synchrophasor-based monitoring system that will significantly enhance PG&E's existing grid monitoring capability and improve PG&E and regional grid reliability. PG&E is a sub-recipient to the Western Electric Coordinating Council (WECC) for an ARRA grant with the Department of Energy (DOE) to promote the installation of synchrophasor technology[1][1]. PG&E is responsible for installing phasor measurement units (PMUs) at 20 to 30 substations, expanding PG&E's communication network to support the synchrophasor applications, and providing data to PG&E operators and engineers as well as WECC .

Project Milestones Reached To Date

Completed installation of proof-of-concept (POC) facility, equipment & network testing is ongoing

- 7 of 47 communication network paths have been upgraded to handle increased phasor data traffic
- GE has met milestone to provide first 4 production level phasor data concentrators (PDCs)
- Completed walk downs of the 13 site where PDCs will be installed, engineering is underway
- Completed engineering for PMU installation at Gregg Sub and started eng'g for Cottonwood and Bellota (3 subs getting new PMUs vs 22 receiving device upgrades)
- Alstom has installed early versions of its EMS software on PG&E servers at the San Ramon test facility allowing OpenPDC testing to begin

Jobs Created: 37,931 Man Hours

Total Spend: \$7.9M

Compressed Air Energy Storage (CAES) Project

Description

The objectives of the 300MW CAES project are to; 1) verify and demonstrate advanced CAES technology to achieve an optimized energy ratio and heat rate; 2) integrate intermittent renewable resources by using the CAES plant to steady the power fluctuations from load and intermittent renewables; and 3) use the CAES plant to provide ancillary services, including regulation, emergency spinning/non-spinning reserve and VAR/voltage support. The project is expected to drive measurable benefits such as reduced greenhouse gas emissions, improved grid reliability and flexibility, and lower electric power system costs.

Project Milestones Reached To Date

- DOE Contract Execution
- Project Management Plan Submission
- Interoperability & Cyber Security (I&CS) Plan Submission
- Metrics & Benefits Reporting Plan

Jobs Created: 6.3 jobs

Total Spend for the year is \$1,5 M

From: Dietz, Sidney

Sent: Monday, November 14, 2011 4:39 PM

To: [Redacted]

Subject: Re: CAES Project Milestones To Date

Yeah. Check the email from marzia to make sure it's complete. Thanks!

Do I seem terse? Blame the thumb keyboard.

From: [Redacted]

Sent: Monday, November 14, 2011 04:37 PM

To: Dietz, Sidney

Subject: RE: CAES Project Milestones To Date

According to [Redacted] email, yes, only two ARRAY projects.

By compile you mean provide you with a summary of the milestones reached this year for each project in one email, correct?

From: Dietz, Sidney
Sent: Monday, November 14, 2011 4:31 PM
To: [Redacted]
Subject: Re: CAES Project Milestones To Date

Conor-thx. Send me the whole thing compiled. Are there only 2?

Do I seem terse? Blame the thumb keyboard.

From: [Redacted]
Sent: Monday, November 14, 2011 04:17 PM
To: Dietz, Sidney
Subject: CAES Project Milestones To Date

CAES

DOE Contract Execution - February 4, 2011
Project Management Plan Submission - July 11, 2011
Interoperability & Cyber Security (I&CS) Plan Submission - April 5, 2011
Metrics & Benefits Reporting Plan - August 11, 2011

The CAES project has created 6.3 jobs
Our total spend for the year is \$1,524,650.02. We are under spent by about \$1.5 million.

If you need more specifics, let me know.

[Redacted]

Regulation & Rates/ Operations Proceedings

Pacific Gas and Electric Company

Phone: [Redacted]

