CSI Public Form
The Grand Long Beach Event Center
January 30, 2009

WELCOME

PROGRAM STATISTICS

Q (Joel Davidson): What is the administrative cost per Watt for each of the three Program Administrators (PAs)?

A (CPUC): This is publicly available through the data annex to the January progress report online. It includes the dollars spent to date and total Watts per administrator. You can divide the administrative expenditure by either the pending Watts or the total installed Watts.

Q (Solar Power Partners): On page 11, it only shows drop outs up until Step 3, but the program data file shows drop out at around 67 MW for all the PAs…

A (CPUC): In Table 4, Steps 1, 2 and 3 are not incentive steps, but application processing steps.

Q (Solar Power Partners): The program data file shows there are ~100 MW of drop outs, but here you only have ~45 MW. Is there a way to see on step-by-step basis where the drop outs are?

A (CPUC): We have a table that more clearly show drop-outs in the data annex, but not at the step-by-step level. We should be able to look at drop-outs at the step-by-step level. We'll take your suggestion to include such table in future reports.

For the 100 MW vs 45 MW discrepancies, it's a difference between PowerClerk and the progress reporting. PowerClerk shows you all the dropped-out projects even when they're not reserved. In the progress report, if a project is not reserved and dropped out, it is not included in this report.

Comment (Solar Power Partners): As PG&E territory is approaching Step 6, we want to buffer the zone.

Q (Ameco Solar): We do mostly residential systems. The report had drawn data from 1/1/09. Do you have a sense of the residential application rate this month, ie. since the beginning of the year?

A (CPUC): New applications have dropped off a little bit. It is too soon to tell what that means; January is not a hot month for any kind of sales, but installation (ie. completes) is skyrocketing. We will be talking about the data in more details this afternoon.

PROGRAM UPDATES

Comment (CALSEIA): Per the ITRON report, there's a lack of customer awareness on the solar hot water program. Please include solar water heating in the CSI program materials, eg. press releases and documents, so the CPUC looks like they are interested in solar water heating. There is more in solar than just PV. CALSEIA wants to expand beyond PV for all solar technologies.

A (CPUC): We included the Solar Hot Water Pilot in page 16 of the progress report and also in the recent CSI newsletter. CALSEIA issued a report this week talking about the value proposition of solar water heating. It is available at the CALSEIA website. PUC staff is still in the information gathering phase of the staff proposal on designing the solar hot water program. If you have any information regarding the marketplace, please send them along.

CSI PROGRAM HANDBOOK UPDATES

Q (Stakeholder): Regarding adding modules to existing system, can we add modules to an inverter that had received rebate under the CEC?

A (PG&E): No, according to the SB1 guidelines and the handbook, the inverter must receive incentives through the SB1 programs

Q (McKinley Barnes): When you add equipment to the CSI database for an existing system, would it make sense to enter the quantity of the inverter as 0 since it's already counted in the existing system?

A (PG&E): We are looking into that, to see what we can add to the forms and the database to identify that. For now, you can note that in the application that you're tying the new equipment to an existing system.

MASH UPDATE

Q (Stakeholder): What is the relationship between this program and HUD, especially with the allocation of utility allowance? What is the financial gain for tenants between tracks 1b or 2?

A (PG&E): Track 1 doesn't have direct tenant benefits requirement. Track 2 has direct tenant benefit (eg. energy efficiency upgrades to lower electricity costs). This program doesn't try to overlap with the utility allowances processes.

SITE DEFINITION

Comment (CALSEIA): This has big implications. If the State of California is applying for CSI rebate, it will hurt competition among solar companies. The decision for SB1 doesn't define premises. This is an opportunity for PUC rulemaking. It needs public vetting. Some companies can come to the PUC or the PAs when they have ideas to solve a problem, but not all companies have the resources to go to the PUC. We need a place to send in the ideas, so no one company is too influential. This needs to be handled by the PUC and be done in the public, not handled by the PAs.

A (CPUC): The UC systems and large site owners brought up this issue. We're presenting it here so we can discuss. We have no decision on how to proceed yet. The CSI is governed by statute, CPUC decisions, CEC SB1 guideline, program handbook, and by PA daily practice. If an issue comes up, we'll think about possibilities and constraints are. We haven't done a legal analysis on this and haven't figured out what to change, is it statute or handbook?

Q (CPUC): What happens today if you install a 5 MW system and you want to interconnect and get net energy meter. Even if we change CSI, you still have to address net metering and interconnection. We can't address it in one place, but in multiple forms.

Comment (CALSEIA): We need a public place to make suggestions and provide interpretations of what's going on with the program. It will affect competitive bidding. If a company has a piece of insider information on how the PAs or CPUCs are thinking, the company can use it as its competitive advantage. How many companies are active in the program? 60% of installations are done by 15 companies. This concerns me the commercial market advantages larger blocks. The site definition discussion needs to take place in a public process.

A (CCSE): We had to reject a project, which is why it was originally brought up in the public forum. We want the industry to be prepared to have this type of discussion. If the issue shows up as an Advice Letter, and you have 30 days to comment, there may not be enough time to address an issue of this type of gravity.

A (SCE): We have had situations of requests >1 MW. We have worked out a way to do it: combined technology and tariffs. I'm not sure if they're the appropriate ones to use. It is clear that this needs more discussion. The definition of premises leaks over into feed-in tariffs and other areas. There are clear paths that created those exceptions by the special interests that are represented by certain groups. If those groups supported the exceptions then, we have to go back to them to ask why they don't want it now.

Comment (Californians for Renewable Energy): This is a big problem for rate payers. We need to look into whether we go into FIT with these big systems. Should they be owned by the utilities? Should they be competed on jobs with members of the solar community vs. single unit taking over everything? This is a very complicated issue. CSI is not the appropriate forum. This needs to be looked at legislatively or through regulatory process. There is a small pot of money here and is meant for people to use on site. William Markus's paper, commissioned by UCAN, concludes that the least cost best fit is onsite usage of solar generation combined with energy efficiency. That's what this program is about. Site definition opens up the issues of where we need FIT and who should own these systems. This is not the right forum for this discussion.

Comment (Joel Davidson): 1. It doesn't have to be a big system to be restricted. My customer in SCE wants to be 100% solar, but demand is restricted to a 68 kW system. The service to that site is an important consideration. 2. In the industry standpoint, the fundamental reason of this program is to have sustainable solar industry; providing PV for few customers by a few vendors is not going to be sustainable.

A (CCSE): To look at both sides of the equation is what happens when the commercial side of the reservations plateau? Some trend analysis of the non-res, reaching certain steps in certain service territory, you start to see the trajectory might not be right trajectory to meet the goals. To look at both sides, neither scenario is sustainable: few people go into solar or a pause in the solar industry.

MORNING Q&A

Comments (CALSEIA):

There needs to be time set aside in the public forum agenda to receive feedback from the stakeholders

Prior requests not yet implemented:

1. **Remove project cost breakdown and price breakdown in PowerClerk. Systems are sold in lumpsum, particular for residential systems.**

2. **Implement CPUC Shading Subcommittee Recommendations.**

3. Clarify/Change Monitoring requirement to exempt all projects under 10 kW since all the projects under 10 kW are asking for exemption anyway.

4. Provide at least 45 days notice prior to updating the EPBB calculator and allow the old version to be used for all systems during that period.

5. Implement rebates for solar water heating that displace electricity to be eligible for CSI

6. Implement AB 1470 rebates for solar water heating that displaces natural gas. We don't want people to take out their gas heaters and put in electric heaters.

New requests:

1. **New CEC Program Handbook (page 65) states: Shade numbers of 95% will result in 90% rebate. This changes the rebate of a customer after we submit a rebate application.**

2. **Remove the "wet signature" requirement. Move towards electronic signatures. It would cut down on administrative costs due to a decrease in installer trips to the customers' location to get additional forms signed.**

3. **Move towards a fully online rebate process.**

4. **PowerClerk implementation issues: It has a tabbing problem. When you move to the next page and go back, you'll lose all the data you've entered. It'd be nice to have some defaults added.**

5. **Database correction. Things have gotten a lot better. There are still a lot of name problems. Let the contractors go in to correct names and addresses of the applicant.**

6. **Clarify Warranty Requirements. It is not clear whether the 10-year workmanship requirement applies to roof penetrations. Recommend that these be clarified. This is important for cost bidding. Obviously, contractors that provide 10 year warranty come in at a higher costs than those who bids in 5 years or 1 year. It gives imbalance advantage to some contractors who give shorter warranty. We suggest 1-5 years. I**

7. **Clarify how mobile homeowners receive net metering and CSI incentives. Possibly similar to multifamily process.**

8. Clarify New Equipment rule (2.2.1). If systems have been placed in service and relocated pursuant to 2.5 how will warranties be addressed when module manufacturers' warranties are voided when modules are moved after they are placed in service?

9. Marketing and outreach. It is not on the agenda today. The utilities are doing homeowner outreach. Contractors don't know about it; we want to participate to grow our businesses

10. Customer outreach. We are seeing more unlicensed solar contractors. They're doing nasty things to customers. It's important to get consumer information out there. The consumer book does not help find qualified solar company. You need to step up the ability for customers to find good quality installers.

11. Reduce number of systems inspected if proven good track record, It's expensive for PAs to do inspections.

12. CSI Database. It's improving but there are still too many missing fields and incorrect names.

13. Anticipate steps going to change and give heads-up to installers. PG&E has done that.

14. Rebate application fees refund. Allow option for rebate application fee to be returned to party other than Host Customer.

15. Require updates to Trigger Tracker (MW under review) daily when rebate drop is nearing.

A (CPUC): They're currently updated daily

16. Please don't use the CEC calculator

17. Remove unlicensed contractors from the CEC List of Eligible companies. The CEC list of registered installer and retailers. Has a lot of unlicensed companies acting like a licensed contractor. It'd be helpful to use "contractor" instead of "installer". You associate contractors with licensing and board.

18. Provide generic consumer information about electricity rates increases. Some companies exert outrageous trends to motivate customers. The rates information on the PUC website is not consumer-friendly.

19. **Allow aggregation of on-site electricity demand for purposes of calculating rebates for agricultural customers (large parcels with multi meters). Most farmers don't benefit form net metering.**

Program evaluation questions

1. **Will there be workshops?**

   A (CPUC): Yes

2. **When will the draft of the Program Evaluation Report be made available?**

3. **SGIP projects should be in CSI data**

   A (CPUC): We only have the transition projects so far. In the future, we will add up CSI, SGIP and NSHP. We do it in the progress report but haven't figured out how to do it on the California Solar Statistics website.

4. **Solar hot water and concentrator?**

   A (CPUC): Read pg 16-17 of the progress report. PG&E received the first CPV application in December.

Q (Mckinley Barnes): The inability to have a separate contact person for the applicant is a big problem. The applicant is the installer/contractor (owner of the company) who generally does not fill out the form. He should not be the contact person when there's an error or issue on the application. When the contact person changes, that person becomes the applicant. That person does the paperwork, but might not have ever been to the site and is not willing to sign the form under perjury. Please separate the contact person from the applicant.

In the Powerclerk project cost affidavit, it pulls the mailing address but labels it as the site address. This has caused files to be suspended.

Thank you for the warranty change. Follow-up to that, system owner/not host customer is asked to initial the section; that's inaccurate. From the Webinar, it says host customer must initial and date that section whether they are the system owner or not. Please revise wording so it's accurate.

There is a category under PMRS, metering requirements. Systems under 30kW that are EPBB, there's language in the handbook that says the meter can be +-5%, can be built in, can be local (doesn't need to be viewed inside the home), but I have never been able to utilize the language. You have 2 options: either below cost cap or you're beyond it. How come there's

language in the handbook that's never used. I end up having to lie about cost cap all the time.

If system is adding equipment to an existing system, could the customer not do the energy audit again? Since they've clearly already gone through all of it when they first applied for CSI

Q (CARE): Are you looking into Virtual Net Metering for other applications instead of just affordable housing, eg. shopping centers. It's a good technology.

A (CPUC): VNEM is applied only for multifamily affordable housing. The decision also indicated that we'll take comments and consider expanding VNEM. Look out for the ruling for future opportunities to comment. CPUC will then have to act whether to adopt the expansion.

In the VNEM workshop, the utilities gave great presentations and comments were filed after that (these are all online). Someone came up with VNEM for multifamily affordable housing because of unique characteristic of the housing section, eg. allocation and tenant rents. In the absence of these pre-defined variables, we don't know how VNEM could work for other sectors. We welcome comments

Q (CARE): I am working on 2 applications pending to the PUC (from SCE and SDG&E). These are the 1-2 MW systems. Right now, utilities have a monopoly of this size of systems. If the CSI has a pot of money that is not used, would it be possible to open up the size cap to include up to 2 MW projects? We need to level the playing field to have independent contractor benefit from the 1-2 MW market, not just utilities.

Comment (CPUC): Your comments earlier seem to be opposed to system size cap

Comment (CARE): There is a legislation that didn't pass last year pertaining to onsite usage with excess go into the distribution system. There are a lot of benefits to have 1-2 MW size systems, that are largely government buildings and college campuses, open to CSI contractors.

A (CCSE): AB 1969 does allow for feed-in tariffs up to 1.5 MW. We expect we'll have conversations with installers who've found 2.5 MW size that want to put 1 MW under CSI and 1.5 MW into FIT under AB 1969. We haven't run into this yet. AB 1969 is not CSI, but we want to support the solar marketplace. We also want feedback on what is happening to projects that size, why are they not moving forward?

Comment (CARE): They're not getting applications, maybe because the FIT rate is too low

A (PG&E): We have inquiries about a dual incentive. We just released a new tariff under AB 1969, with a TOU kicker. The challenge is solar is not cost-effective at 14 cents, even with TOU. We have other renewables under the current FIT: hydro, biogas.

<LUNCH>

AB 2466

Q (Phone participant): How is AB 2466 different than VNEM?

A (SCE): The eligibility is only limited to local governments. The VNEM under MASH has to be under the same premises. This allows customers to have generation facility in one place and apply the credits to accounts in other locations. VNEM applies the full energy credit, including delivery services, bypassable charges etc. AB 2466 specifically applies to generation component/ usage component only, so it doesn't offer as much.

Q (Solar Alliance): One issue is whether you can offset onsite usage and then credit excess generation to another account. That's an issue in written comments that is given to the CPUC, it should be written here along with the other issues. What's the next steps on this?

A (SCE): Right now, we have no current customers who have requested this. The utilities are drafting a schedule or tariff for this. The 30 day to submit tariffs has not yet come. Some of these issues are being looked at by the Energy Division (ED). We're still studying the issues before we submit anything to the PUC.

A (CPUC): At the workshop, ED stated that we need to get post-workshop comments and digest them before we move forward procedurally. The ED is concerned that we might have to resolve some of these issues in rulemaking before they file these tariffs. We're trying to solve them out right now and will take a few weeks before we know what's going to happen. You'll see utilities file tariffs, or there'll be rulemaking on this issue.

Comment (Record Energy): I attended the AB 2466 workshop on January 8. Due to the uncertainty, I requested the City of Napa who are interested in the tariff, to back off, so we wouldn't force utilities to come up with tariffs that don't work. In my filed comments, as with the solar program, its the combination of incentives that make the program work. If city doesn't also

get funding, net metering, and solar-friendly tariff, it may not work. Sue says maybe it's not something that needs to be fixed at the legislature, but at the regulatory side. VNEM is something that allows us to make do without AB 2466 but the schools won't be able to benefit.

CSI DATABASE TOOL (POWERCLERK) UPDATE/ SIMPLIFYING THE CSI APPLICATION

Stakeholder: I know the bill looks redundant, but there're benefits to looking at a hard copy of the bill which gives info on names, rates, mailing address, etc. That's a common document that's not available in other place and I'm not willing to part with it.

A (PG&E): If you're talking about a copy of the customer bill for your own use, that's another thing; in terms of submitting to us, it's duplicative to make a photocopy for us that may not be used. We're trying to simply the process in terms of the paperwork that is submitted to us.

Q (McKinley Barnes): If you're getting rid of the bill for CSI, then also talk to net metering, so we don't have to send to net metering. I want to revisit the one-step process, but I don't want it to be either or.

A (PG&E): This is regarding to allowing customers to submit the incentive claim without even the reservation if they've already installed the system and want the incentive. We're looking into it adding this as an option, but not a mandate. If you think we should mandate it, we would entertain the idea as well.

Q (CALSEIA): Someone said that frequently design factor is different when they apply and when they submit the incentive form. They should be allowed some flexibility on system sizing, eg. to oversize by 10%.

Q (McKinley Barnes): On energy audit, some customers have gone the whole process, coached by the salesperson, they somehow don't click the right button to print, close it out and don't know how to retrieve it. Can we save trees and instead of sending in a 10-12 page, they can submit the audit online?

Comment (PG&E): How about getting rid of the EPBB calculator as long as the PUC is in agreement? Or modify it   so it's some kind of a card you put in direction and tilt. Shading is still an important factor.

Comment (CALSEIA): It's a good idea. Some lookup tables have been developed and they're consistent with the statute.

A (CPUC): It's only in Dec 2008 that the CEC finalized the SB 1 guidelines and exempted us from the EPBB calculator. Given the pressure to simplify, we need to think through what we should do in lieu of the calculator. One of the options is to switch to the CEC calculator.

Q (Stakeholder): It'd be great if it's simpler, but not to get rid of it entirely. If you make it a simple lookup table on a spreadsheet, then you don't have to go online while you're in front of a customer. You might still want to include the geographic factors with zip codes lookup.

Comment (PG&E): Do you think the residential reservation timeframe is too long. It takes 12 months before inactive residential projects are dropped. Data shows that typical residential installation takes 3-5 months. To spur residential installation, and help the drop-out issue, can we shorten the reservation period to 6 months?

Comment (Joel Davidson): Everyone in sales wants a shorter sales cycle. But what if there is a supply shortage and the customer has to go on the waiting list? 6 months is fine, but if people have to go longer, they shouldn't be penalized.

Comment (CCSE): Other states don't have reservations at all for residential systems. We're keeping in mind all the different options and looking for best practices across the country. Are we allowing a year because it's historical necessary or genuinely necessary in the current environment?

Q (McKinley Barnes): Can we change it to 6 month, but it wouldn't be too hard to get an extension?

A (PG&E): Customers are still allowed to get a 6 month extension as long as they're following the guidelines to get an extension, ie. showing that they're committed to the project.

Comment (Solarmax): In addition to that, due to permitting (fire department) and potential issues with the roofing, I don't think we should change it at all. It's unfortunate for the dropouts, but the 1 year reservation can come in handy.

Q (McKinley Barnes): It would be nice if someone can talk to Solmetrix so the shading tool can be a clickable download. We have to submit 6-7 pages to SCE.   PG&E and CCSE both accept just the summary page.

Q (Phone participant): Is there a way to make the online energy audits more user-friendly? At PG&E, our customers have a hard time completing the audits

A (PG&E): PG&E will look into making them more customer-friendly

A (SCE): I've talked to many contractors. I hear there's a lot of heartache with the energy audit. I did it myself; it was contracted out. The gentleman who did it transmitted the data to a database in Sacramento. I want to reemphasize that it is a stumbling block, but it does have the capability of online submittal.

A (CPUC): Through the energy efficiency proceedings, the utilities are required to advance energy efficiency site management options. The PUC is prescriptive in asking the utilities, in this round, to provide more enhanced audit. Hopefully, the next generation audit will have fixed the function problem. It's not a simple fix, but it's doable.

A (PG&E): All our energy efficiency proceedings from 09-11 timeframe have been delayed, so everyone's put off for another year of development of the enhanced universal energy audit tool. It'll be a nice piece of software that's user-friendly. But this is delayed because of filing delays with EE program statewide.

Q (McKinley Barnes): In the energy audit, customers really don't want to tell you whether they have an alarm system at home. That's a sensitive issue.

Comment (Joel Davidson): PAs should go through the application process and will see the challenges we face dealing with customers. You can get a car faster than a PV system.

A (PG&E): That's why we're here. Give us ideas on how to simplify and shorten the process

Comment (Stakeholder): Why are use UPS to send letters when you can send an email or fax?

A (PG&E): I'd talk to your PA about that. PG&E only send 1 letter to the customers, and everything else is through email. All our letters don't need labels on the envelope. We format them such that the address fits in the open window of the envelopes.

Comment (Verve Solar): Great job on the CA solar statistics site. The next step is to include the zip codes and provide a map to show how many systems are in an area.

A (CPUC): We will demo the site in a few minutes

CEC INSTALLER LIST

MOVING PANELS VOIDS WARRANTY

THEFT OF PANELS

Comment (Record Solar): There are a lot of thefts in Napa. We're looking into ways for the first point of contact, eg. installer, maintain records of serial numbers. Some installers have started to do that. Retrofitting solar array against theft is expensive. It should be a lot easier if the manufacturer take care of security in some ways.

A (CPUC): The solar market is growing, so it's evident that the theft increases. For larger systems that are not visible to the street or the owner walking by, it is more important to have PMRS that notifies you immediate if there's a disconnect in the system or changed performance. If there's a theft, you want to know soon instead of a month later when you get your NEM bill.

A (CCSE): The fire departments are asking for quick release hardware, to make the panels movable in case of a fire. On the other hand, we're talking about how to make the panels permanent so they can't be moved. These are real issues and that's what a growing market is going through. We have to work with people we didn't think we have to work with before.

Comment (CALSEIA): It is actually a hinged release; a quick release panel can hurt a fire fighter if the modules slide off the roof. On the theft issue, one of the detectives CALSEIA is working with suggested that CALSEIA publishes the serial number of the stolen modules and post them on the website. The 2nd thing is that most of the stolen modules are stolen by people who are experienced with solar. Start doing criminal background check on your employees. 3rd thing is that it's important to look for at selling websites like Craigslist. If you see your system's pictures on Craigslist but it's not for sale, remove it yourself.

Comment (CCSE): Recently, we had to send people to the bankruptcy court. They're the homeowners and installers. It has to do with the alternative energy fund that alleged exist, but it's unclear whether it has ever existed. We want to bring the contractor licensing more upfront. The issue with the installer list is that the website might not be updated for a year. The installers might be eligible and clean a year go. We try to bring awareness to homeowners to look at the CSLB.ca.gov site to make sure the contractor still has an active license.

A (CPUC): The PAs are looking into handbook language to deal with what happens when a licensed contractor falls off the CSLB list during the contract timeframe after the reservation or after the incentive claim. Licensed contractor should be happy with the new language because they are not forced into competition with unlicensed people. PA are all doing the same thing. If a PA finds out that xyz is no longer CSLB-licensed, they'll contacting all other PAs and the host customers.

Comment (stakeholder): I want to point out that the Executive director of CALSEIA speaks for the industry. Her comments are how we, in the industry, feel. There're a lot of PPA-leased panels. Part of the requirement is that the panels can be removed. If you make some kind of restrictions on the ability to remove these panel, that might kill a whole market.

Comment (CARE): We work hard on solar permanency, so people who get CSI incentives has at least 10 years. There's a secondary market for panels that're taken off after being leased. I know some companies are selling those panels that are slightly damaged. We can send them a list of the stolen panels, so they can differentiate the panels they're buying legally and stolen panels.. Sun Electrics from Miami has a huge secondary business. We could send the list to them and a couple others. Tell them that we will prosecute for possessing stolen goods. That market should be legitimate.

UPDATES TO CALIFORNIA SOLAR STATISTICS WEB SITE

http://californiasolarstatistics.ca.gov/reports/1-28-2009/Dashboard.html

AFTERNOON Q&A

Comment (Phone participant): Regarding common interest development (CID), commonly called Home Owners Association, they're governed by the California Davis-Stirling Act. They account for 25%40% of all residential properties in California. They're private governments, non-profit, collect fees, establish private rules and regulations, managed by electric board members, often provide public services (eg. electric & gas), have operating and reserve funds to serve the common interest of the community… They have the ability to procure solar for the entire community. I'm a home owner in a CID with 391 home owners, 391 meters, 13 common area meters, and a roof on the common area. We're interested in solar, but bids I've gotten so far don't even know how to put it on a large community. I feel that VNEM looks great, but it's only available for MASH. I'm not sure why it's not open to projects that fit the same category as MASH. If you're interested in combining efforts or sharing notes, please email me at solar@lucid.com.

A (CPUC): We mentioned earlier that in the CPUC rulemaking, we're going to be taking comments on the expansion VNEM beyond MASH. We can follow-up with you offline on some of the constraints. It was originally contained in MASH because it's a pilot program. Check out January 9 workshop presentations. (See above)

Q (Jason, Phone participant): Why SB 1 doesn't fund gas technologies?

A (CPUC): SB 1 collects funds from electric ratepayers, so we don't fund gas technologies

Q (Jason, Phone participant): Will that change in the future? Are there bills in the works?

A (CPUC): In 2007, AB1760 was passed to allow us to collect funds from gas ratepayers to fund other solar technologies. The PUC rulemaking will be considering solar water heater program in 2009.

Q (Jason, Phone participant): What about we generate electricity by burning gas? We can use solar panels to generate electricity to offset the need to generate electricity by burning gas.

A (CPUC): You're correct. It's a function of where the ratepayer funds come from.

Q (Steven Howards, Phone participant): About the statistics, they're very useful. You mentioned that they're being filtered. In additional to zero cost reservations or negative costs, there is a $2.8 billion project. These might skew the statistics. How is the integrity of the data being maintained?

A (PG&E): Internally, we have a working group and quality metrics to measure how well the data is being put in. If we're not reserving projects in time with good data, we don't meet our goals.

A (Tyson Cook, Energy Solutions): For Large areas with negative incentive or costs in the billions, these data points are excluded. You can follow the link on the website to see what exactly are excluded.

A (CPUC): We have a whole list of things we search for and we can add to that list on a regular basis. For example, we make sure the applications aren't from 1977, not for $2 billion etc. Overtime, as we discover more errors, we can add them to the list to filter out data. If we see 60 errors from this week, are they the same errors next week or the week after? We'll be fixing the data as we go along.

Q (Steven Howards, Phone participant): I just downloaded the filtered data. It has a $2.8 billion project, 800 projects with the cost of $0, and 700 with negative costs

A (PG&E): We continue to identify these and fix them. In terms for project cost, I'd not put much weight on systems under the reservation status, but systems with completed status. I'd look at the completed system, or systems in the pending payment or in PBI payment mode. We could have a webinar to go through the CSI data.

A (CPUC): For example, why is the installer field blank? For residential applications, installers don't have to fill in the information until a later stage. There are fields that look like errors might not actually be errors.

A (CCSE): The data fields are not so easily constraint, eg cost. They absolutely look like it's out of range, but we're also accepting non-PV technology that is hard to put a cap on to say it's an error. We don't restrict price; we just publish them.

A (CPUC): Now there's a system in place with a filter check. It's transparent. If we need to add another filter, we'll add more. We now have a system we can improve upon.

Q (Kristen Brown, Phone participant): This is specifically related to PG&E interconnection. PG&E has gotten stricter regarding interconnection for customers with dogs. It takes 6 months to 1 year for those who have a dog but don't have the ability to send the dog off. Those customers can't go forward with solar. Is CALSEIA or CSI customers running into this issue?

A (Chuck Hornbrook, PG&E): Send me an email at clhs@pge.com. Safety is paramount in our company, so we want to make sure that even though the dog is safe, our meter technicians don't know that. We want to work with you to find a solution. We're a pro solar and pro dog company.

Q (CARE): I fought hard for the panel permanency within each utility district. I want to make sure that if you're finished leasing a system, there's still provision that it stays within the electric territory, so these don't get shipped out of state. I'm not sure what Joel Davidson was referring to that it would cut off a whole area of business. We need to make sure the public goods charge invested by the ratepayers are still in effect.

A (CCSE): We are not advocating removing the permanency clause from the handbook. We want to ensure "new" panels aren't the same ones that're stolen before. In order get receive the rebate, a customer must agree to keep the panels within the service territory for 10 years.

A (CPUC): It is a program requirement.

Q (Stakeholder): VNEM not being deployed more generally because of tariff concerns. Who gets hurt by it? Why?

A (PG&E): VNEM morning session on January 8 is complicated. It's not easy to implement. For example, a 6-unit building, tenants come and go on a 12 month rotation. The apartment might open for 2 months and one of the tenants might not want to be on the solar program. There're a lot of complication and expenses to implement. I recommend you look at the utility comments on VNEM submitted by 9/29/08 on MASH including VNEM and the cost of billing VNEM. Since you have to tie in with rest of the building structure, it's complicated. That's why it's a pilot program. The commission will seek advice and feedback from rest of the community on whether to expand VNEM beyond MASH.

A (SCE): Our billing system and the current net metering program is for 1 customer per meter. All the credits are allocated to the same customer on the same meter. Now you're talking about 1 generation location to many different meters. We don't have the capability to do it right now, so it takes time and IT system upgrades to do it.

A (CPUC): We are also talking about allocating 200 units (some 3 bedrooms, some studios). How many credits do we allocate to each unit? Do you fix that allocation or can you change it later? Affordable housing also has less vacancy than market rate housing. There are many factors in MASH that are known and fixed, that might not be same with other multi-tenant housing. Net metering is a form of subsidy from non-participating ratepayers to participating ratepayers. We need to be sensitive about shifting more dollars from non-participating ratepayers to participating ratepayers. We need to understand VNEM better to make sure it'll work.

A (PG&E): You might wonder why we don't just do master metering. This is against the loading order. The most cost effective thing to do is energy efficiency and conservation; individual meter is the best way to give consumption information to a customer.

Q (CARE): We are pushing feed-in tariffs because apartment buildings and condos can have solar without the complication of net metering. It would feed right in to make the common area cheaper and therefore reducing rent. FIT is a good way to solve this problem.

Q (Email): When will CA move to a full feed in tariff?

A (CPUC): CA has a vibrant active solar market on the customer side of the meter / behind the meter. That involves subsidies from CSI, NEM, and interconnection subsidy. These 3 incentives make the customer-side of the meter work. CA also has a FIT that doesn't have CSI incentives, or NEM, or interconnection, so by logic FIT is not getting customers. Other places in the world, eg Germany and Spain, have a full FIT or I would call it an over-full FIT. They're paying heavy subsidy on the wholesale side of the meter. We're putting our incentives on the customer side of the meter. People are talking about developing in parallel a wholesale-side subsidy. We want a market that works for both sides: customer side and generation side. FIT might be better for multi-tenants property, or for buildings that don't have a lot of load, but have a lot of roof. We already have a healthy customer side program, but need to develop the wholesale side program. The 2/10 workshop will discuss how different size systems will affect the current FIT contract. The legislature is tackling FIT and the PUC has a rulemaking about this as well.

A (CCSE): It's important to understand what a sustainable solar market looks like. We're at year 2 of CSI (and year 10 of a CA solar program) and the solar market has grown in a healthy rate. Is it healthy to have a boom and bust cycle, where the market ramps up with robust incentives and down when incentives go down? CSI wants a stable growth path of about 30+% per year. We don't want to overlook successes to get everything we ask for and lose out on what we have.

Q (Email): AB 811 property tax. The Berkeley program has the first program. There's a provision in a bill that would clear up any tax implications that these loans have provided. You finance the solar system through your property tax. It lowers the barriers of entry.

A (PG&E): PG&E is working with local government on how to make this happen and leverage off the CSI application to make things easier, so they're not reinventing the wheel.

A (CCSE): There're certain entities that have property tax capabilities where they can put a lien on the property. Those entities are either looking individually to figure out what type of program they want to run like this; some small munis are banding together to develop a program around this as well. There've been some public requests for proposals; they've been asking for our consultation. There's a natural synergy between AB 811 and CSI. It's still in the early stages. The activity level in SD is robust between cities and counties.

A (SCE): Palm Desert and City of Santa Monica are aggressively pursuing AB 811

A (CCSE): AB 811 helps overcome 2 major barriers. 1. Access to capital. Right now credit is tight, some simply can't get access to the funds for PV. In this case, you're allowed to get funds by putting a lien on your property taxes. This circumvents the normal bank channels. 2. Most people do not live in their homes for the duration of the life of the PV system. They may make an investment, get a loan and subsequently move. That loan is their own issue and they have to recoup it when they sell the property. AB 811 ties solar to the property, not the owner, so the next owner of the property will bear the cost of repaying the remaining of that loan.

A (CPUC): If anyone's interested in finding out more, go to renewfund.com . It is by the person who created the model at the City of Berkeley. The site has all the documents they used to get this model approved by the city, eg. the resolution, ordinance to create the bonding authority... They sell services to help cities do this, but also provide info for cities who want to do it themselves.

Q (stakeholder): For adding modules to an existing system, is there a waiting period or a time limit?

A (CCSE): Right now, we don't have time limits for moving forward. Maybe in the future if CSI extends beyond 2016, this might change.

Q (McKinley Barnes): If anyone knows how to retrieve a PG&E Energy Analyzer audit, find me.

Q (McKinley Barnes): When is the SCE bucket going to drop for res? 2 months?

A (SCE): April to May is the most recent guess. We'll keep watching it. You can check in again at a later point.

A (CPUC): You can look at the table data week by week to see how many applications SCE receives. You should be able to see the trend.

A (CCSE): The issues about predictions we make is that if you say it's close to step-drop, then more applications rush in. The electronic reporting lags behind the physical applications that are coming in and piling up. When it looks like there's a week left, you can guarantee that there's a pile of paper waiting to be processed.

A (PG&E): We received 700 applications in November and 200 on December 1. I sent out an email when there's about 2MW left and the 2 MW went in a week. The previous December, we received 25 MW of commercial applications in one day. I'd watch it quickly and use it to motivate your customers to sign up.

A (CCSE): The month we expected it to drop, the month before there was 50% increase in application. The month it actually dropped, there was a 300% increase in applications.

Q (McKinley Barnes): Thank you for the consumer's guide to CSI, how to read net metering bill, residential/business fact sheets. Thanks to PG&E for webinars. Thanks for reformatting this forum so we have 2 blocks to ask questions.

Q (Record Solar): I develop solar projects for wineries and non-profits. I notice some perverse behavior. We are required to size the systems based

on 12 moths of historical usage. I'm force my clients to go to a E6 schedule, so they can leverage TOU to be energy efficient and conservation-minded. At the end of the year, my clients may have a large credit with PG&E. The perverse behavior is to consume that energy rather than have PG&E get it. Some move modules from one side to another, because he has a credit on one side and a debit on the other. SB 7 says you can roll over credit to next year, or be compensated at the MPR. What do people think about this? Also, let's say a business goes under. A large system that might be financed by somebody else, the PPA or the bank, has no backstop for them. This system is producing energy but they have no compensation. This is another reason for promoting SB 7.

A (CPUC): The CPUC opposed to AB 1920 last year (similar to SB 7) that'll provide generation only payment to people who're otherwise on a full net metering retail rate. 1. It would not have helped the majority of people because majority have a $ credit but not a kWh credit, so it would only help people with a kWh credit. 2. For those with kWh credit, it gives the generation-only value, not the $ value on their bill. It does not help that person you're talking about, it'd be confusing and difficult to implement. The analysis on AB 1920 is detailed and most find it helpful. I haven't gone through the analysis of the SB 7 bill, but I think it's similar. CPUC will take a position and that analysis will become public around late March.

Q (CARE): When a business goes under, the PPA firm can dismantle the system and have a PPA with another entity in the same utility district. There's a backstop for PPAs.

Q (Stakeholder): Assuming the Senate passes the stimulus bill, what is the process within the industry or the government to analyze the bill on issues that affect the CSI? And have the information come out to the industry?

A (CPUC): Within the government agencies, we're actively looking at every iteration of the bill, and providing analysis to the department heads and governor's office on how the proposals affect our programs. Many of the items that I analyzed are going to be administered at the federal level, so it does not affect the state activities. For example, if the Investment Tax Credit (ITC) got passed in October is turned into a grant program (or instant refund), the CSI won't need to do anything to change, but we will help publicize that. The Loan Guarantee program is available for larger projects (~$25million). It doesn't look like CSI one at a time will qualify, but a group of aggregated projects can potentially apply for that. There're other programs that may affect us: demand response, energy efficiency, smart grid programs. We're carefully watching it and will publicize the ones we need. There may be money to the states in the form of plot grant that the legislature will have to disburse; the CPUC or utilities may have to make themselves available to be the disbursement channel. In some cases, we may have to spur on the utilities to ask for certain money, probably not CSI money, but probably smart grid money.

A (PG&E): We're also looking at these different pieces, the infrastructure, energy efficiency, weatherization etc. We're all very interested in how that will impact the things we're planning to do in collaboration with the PUC.

A (CPUC): The bill is looking at things that are going to happen soon. Some of our RPS projects that the 3 utilities have signed are all well into permitting and zoning. They could get built with more access to capital. We're hopeful that California is well positioned to take advantage of the stimulus.

Q (stakeholder): Will there be another meeting like this in a month to talk about the analysis?

A (CPUC): It wouldn't happen out of this forum. I'd look out for announcements in the various energy agencies and the governor's office

Comment (CCSE): Please communicate with us. We need to hear from you on how things are going and how we can foster a sustainable solar community.

Comment (SCE): We have made a lot of progress and these meetings are productive. Don't wait for the forums to get in touch with us. Let us know your issues: errors in database, billing, interconnection etc.. We want to fix these problems as soon as possible.