

From: [Redacted]
Sent: 5/19/2010 6:02:19 PM
To: 'Fogel, Cathleen A.' (cathleen.fogel@cpuc.ca.gov)
Cc: Ramaiya, Shilpa R (/o=PG&E/ou=Corporate/cn=Recipients/cn=SRRd); [Redacted]
[Redacted]
[Redacted]

Bcc:
Subject: RE: PG&E ZNE Supplemental AL for ED review (our discussion Thurs afternoon)

Cathy,

Thanks for the response . . . I think we're pretty close. I've gone through your e-mail and provided a few comments in hopes of having progress continue while I'm gone.

Thanks for your email Peter. I think that accurately sums up most but not all of the conversation.

Most of your email implicitly refers to commercial buildings.

*Didn't mean to . . . with the variety of building types, it's just a more complex situation.

For homes, we discussed that getting to ZNE is much cheaper and is generally viable today. So, homes receiving financing assistance under the program should build to ZNE. They should strive towards 70%-50% above Title 24 (2008) for efficiency measures and meet the remaining energy supply needs with PV or other DG systems. This is quite possible with technologies available today at a cost that should be reasonable within the scope of this budget.

*Agree, generally, however, a lot industry focus has been on climate zones with high cooling demand, and therefore on compressorless homes and other air-conditioning measures (and appropriately so in most respects). We are simply not certain it is uniformly easy to exceed code by 50-70% across all CZs--the more difficult cases may warrant more attention. If we set the floor too high (without flexibility), we risk being unable to work with those projects.

And, yes, savings not captured by efficiency would be made up with PV/DG.

Secondly, for commercial buildings, we discussed that the PIP should indicate an intention to offer assistance (design and financial) to the range of commercial segments, ie, not just the easier warehouses and schools. This is relevant in the context of your discussion on the nuances of a 50% target.

*Agree, we do intend to work across a range and not just take the easier cases--however, as noted above, if the floor is too high and there's no flexibility, we could be forced to simply not work with the more challenging building types (e.g., restaurants and/or other facilities with high kBtu/ft2 footprints).

We can certainly add that text around our intention to work in multiple sectors.

Thirdly, although I did not go into detail, it is Energy Division's intention to issue a Request for Supplemental information that indicates the place in the PIP narrative - page 4, 6 and possibly elsewhere later on, where the 40% target is currently stated - where these subtle clarifications should be added. We should be able to accomplish this with a couple of phrases, and we should be able to get that to you all by Friday. It is my view that these clarifications need to be added to the Attachment 1 metrics table as in general that table does not delve into this level of detail, but that is a helpful way to frame out the discussion and we will take a final look at that on Friday.

*Agree, and I spent some time this afternoon with my backup [Redacted] going over the PIP and looking for those passages where we should add the clarifying language. We think we have identified most of them, but I would suggest a quick call to just make sure we've caught all of the places that need clarification.

Have a nice vacation,

*Will do!

Cheers,
Cathy

From: Fogel, Cathleen A. [mailto:cathleen.fogel@cpuc.ca.gov]

Sent: Wednesday, May 19, 2010 5:18 PM

To: [Redacted]

Cc: [Redacted] Ramaiya, Shilpa R; [Redacted]

[Redacted]

Subject: RE: PG&E ZNE Supplemental AL for ED review (our discussion Thurs afternoon)

Thanks for your email Peter. I think that accurately sums up most but not all of the conversation.

Most of your email implicitly refers to commercial buildings.

For homes, we discussed that getting to ZNE is much cheaper and is generally viable today. So, homes receiving financing assistance under the program should build to ZNE. They should strive towards 70%-50% above Title 24 (2008) for efficiency measures and meet the remaining energy supply needs with PV or other DG systems. This is quite possible with technologies available today at a cost that should be reasonable within the scope of this budget.

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frame out the discussion and we will take a final look at that on Friday.

Have a nice vacation,

Cheers,
Cathy

From: [Redacted]
Sent: Wednesday, May 19, 2010 12:03 PM
To: Fogel, Cathleen A.
Cc: [Redacted] Ramaiya, Shilpa R; [Redacted]
[Redacted]
Subject: RE: PG&E ZNE Supplemental AL for ED review (our discussion Thurs afternoon)

Cathy,

Overview

Glad we had a chance to talk yesterday. Since I'm going to be out for a while, I'll go into enough detail here so that others have something to work with and refer to in case there are further discussions. At the bottom of this e-mail, I suggest some solutions which are really quite short and simple despite the length of this e-mail.

First, the scope of our discussion here applies to three specific areas (only) in the PIP. Referring to the Attachment A metrics for clarity, the areas are 1.a, the Subprogram 1 design assistance and demonstration work (community level), and Subprogram 2 demonstration work with 8 residential and 4 commercial buildings (2.a and 2.b). The other 11 metrics/activities are not impacted.

Your concern is around the participation threshold (the % savings) for which we might pay building system incentives: we can agree, generally, to a more aggressive target threshold figure than 40% for ZNE participation, e.g, a number such as 50%.

Our concern is mainly around being able to achieve this figure *with each and every one* of the ZNE pilot participants (which would cover a wide range of building types and climate zones). Although we know that 70% is doable for some types of buildings (unconditioned warehouses), we just can't say what a good figure is for some building types in some climate zones. In fact, one objective of the ZNE pilot is to find out--we don't want to program design to drive us away from building types where savings might be inherently more difficult to achieve, and we don't want prospective participants to shy away from the program owing to the threshold level alone.

So, where I believe we want to end up is with a pilot that pushes the envelope across a variety of situations.

Details

More specifically, your view, which I find reasonable, is that participants in the program should not receive *direct financial assistance* for hardware and systems that they install *unless* they meet a specific performance level for the building.

The "direct financial assistance" would not refer to *design assistance* work, but rather to financial assistance on specific building measure(s) such as a physical system or appliance (or package thereof).

Our filing sets the threshold value for participation in the Subprogram 1 element at a 40% improvement compared to Title 24. For the Subprogram 2 elements, I don't think we refer to a number in Table 5, although 40% is used elsewhere in the filing (e.g., p 18). We should mutually understand that "Title 24" means the version of T-24 in effect at the time the building was/is permitted (usually, this should be the 2008 Title 24 update which became effective 1/1/2010 and will be in force through the current program cycle, 2010-2012).

We discussed the pros and cons of a more aggressive savings percentage. We agreed that 40% is, in general, less aggressive than we would prefer. However, choosing an overly aggressive threshold value would likely have the effect of (1) creating risk in the eyes of prospective participants, and (2) driving us to choose, especially on the commercial side, building types and climate zones where a more aggressive threshold is easily obtained (e.g., warehouses).

I suggested a value of 50% savings, and suggested that it should apply to all three Subprogram elements (1.a, 2.a and 2.b). Today I am suggesting that this be stated as a target. We discussed PG&E's intention on selecting participants: although details have not been worked out, the core idea is that we would attempt to get participants to enter into the program by way of a TBD competitive process. There would be multiple selection factors, but the degree of savings would be the most important. We would probably want to use language that emphasizes "*a strong preference for projects that show at least a 50% savings compared to Title 24.*" (The degree to which "50%" savings is achievable varies substantially by building type, so we wouldn't want this to be the sole criteria, and we wouldn't want to DQ automatically the more difficult building types for which, arguably, the most work is needed.)

In terms of a commercially viable value proposition to participants, we would need to structure our participation arrangements into two main parts:

1. *Design assistance* to the project, in which we assist in the planning/design to achieve greater than 50% savings
2. *Financial assistance* to the project, in which we would help buy down the cost of the necessary system improvements. The "must perform" requirement would only apply to this latter part of the engagement. Also, the baseline would need to be the Title 24 reference conditions (and not anomalous conditions around occupancy, schedule, weather, etc.).

We agreed that a key focus of the ZNE pilot is driving increased building efficiency (as opposed to accepting more modest efficiency gains and stronger relative emphasis on the installation of generation). Stated in terms of the BE-opt curve (from NREL) we discussed, the objective is moving the "optimum" point on the curve to the right (toward greater efficiency) and downward (toward lower cost for efficiency). Of course, this is consistent with the loading order and longstanding policy in CA.

Summarizing:

*50% would be a good figure to substitute for 40% for the 1.a, 2.a and 2.b metrics (and descriptions of those metrics elsewhere in the PIP text), but it should be stated as a target

*PG&E will select participants by way of a competitive process with strong preference for projects that will show at least a 50% savings compared to Title 24 (independent of a generation system)

*Projects receiving direct financial assistance for building measure installation should perform at at least the agreed % improvement *compared to Title 24 reference conditions for that building type* (as applicable when the building permit is issued) independent of a generation system. (This should not apply to design assistance support, but only to financial support of building measures.) In other words,

if a project is selected for participation based a participant-stated target of "at least 53% better than T-24," that's what they would have to meet to receive the direct financial assistance. Ditto 44%, 56%, 62%, etc. If you wanted to state 40% as an absolute floor, we could live with that.

Possible solution language

*Clarification that we will select participants for 1.a, 2.a and 2.b by way of a competitive process (specifics TBD) for which the 50% + threshold figure is a key selection criteria (but not a hard floor)

*Clarification that direct financial assistance for building measures will only be available for projects that actually meet a minimum stated performance level beyond T-24 through the participant selection process.

I'm here until about 4:15 today if you would like to discuss, and will be able to see e-mail until very late.

Thanks,

Redacted

From: Redacted
Sent: Tuesday, May 18, 2010 1:59 PM
To: 'cathleen.fogel@cpuc.ca.gov'
Cc: Redacted Ramaiya, Shilpa R
Subject: RE: PG&E ZNE Supplemental AL for ED review

Cathy,

I plan on calling you late afternoon today (after 4:30). If it's OK with you, let's work from our Attachment A to our Advice Letter (that's the list of "metrics"). That Attachment is derivative of the Table 5 listing of activities. I think your point (more aggressive thresholds for participation) is a good one and warrants discussion. I think that what you're talking about applies mainly in three of the metric areas (of the 14 total), although I may be missing something.

I'd suggest we might wish to first review the activities for which your point is most applicable, and then discuss solutions.

Thanks,

Redacted

PG&E

Redacted

From: [Redacted]
Sent: Monday, May 17, 2010 12:52 PM
To: [Redacted]; Ramaiya, Shilpa R; [Redacted]
Cc: [Redacted]
Subject: FW: PG&E ZNE Supplemental AL for ED review

Here is what Cathy is thinking about ZNE. Feel free to call her to discuss.

Sandy

From: Fogel, Cathleen A. [mailto:cathleen.fogel@cpuc.ca.gov]
Sent: Monday, May 17, 2010 11:04 AM
To: [Redacted]
Subject: RE: PG&E ZNE Supplemental AL for ED review

We have realized that both SCE and PG&E have only included 45% above Title 24 and 40% above Title 24 as the eligibility bar for access to financing and other support via the Sustainable Communities and ZNE Pilot Projects respectively. Upon more reflection, that bar seems too low, particularly for the ZNE Pilot project (as the name specifically implies that it is producing ZNE homes/buildings) and probably for the SCE SC pilot as well.

Our understanding is that the technologies to get to ZNE exist now for homes and for some types of commercial buildings, and that the incremental measure costs are mostly (~70%) for solar (for homes). So, we are considering specifying the eligibility bar for the financing portion of the ZNE pilot to be ZNE or "near-ZNE" (and coming back to SCE with a similar request).

Would be happy to discuss with Peter or other appropriate person this week. I'm a bit busy, so before 10:30 tomorrow or after 4:30 or after 1 pm on Wed is best.

Cathy

From: [Redacted]
Sent: Monday, May 17, 2010 10:28 AM
To: Fogel, Cathleen A.
Subject: RE: PG&E ZNE Supplemental AL for ED review

Good timing I was just talking to the ZNE folks. Peter will be out of the country from this Thursday through June 1 and was asking what might be needed. Can you give me a preview of what you might need on ZNE before he leaves? I will be on vacation next Thursday until June 3 as well.

From: Fogel, Cathleen A. [mailto:cathleen.fogel@cpuc.ca.gov]
Sent: Monday, May 17, 2010 10:22 AM
To: [Redacted]

Subject: RE: PG&E ZNE Supplemental AL for ED review

Sandy,

I think that ED may request one more change on this, so hold off on the substitute sheet until you hear from us. We will be in touch this week.

Cathy

From: Redacted
Sent: Monday, May 10, 2010 9:53 AM
To: Fogel, Cathleen A.
Subject: RE: PG&E ZNE Supplemental AL for ED review

Good morning - I hope you enjoyed Mother's Day and the crazy weather we had in Berkeley yesterday!! I am sorry to see Anna go too - she is a delightful, intelligent, capable woman.

Regarding the AL, we will need to submit a substitute sheet to fix a typo and citation error on page 1 of the PIP. I am not sure if we should send this in shortly, or wait until you have reviewed the filing. Do you have a sense of how long it will take to review/approve? ~Sandy

Here is the correction:

The projected program budget shown in Table 1 includes \$1.4 million for market characterization studies to create a statewide roadmap and a key study entitled "Assessment of the Technical Potential for Achieving Net Zero-Energy Buildings in the Commercial Sector" to identify key commercial building types for California that have the technical potential to achieve ZNE. These EM&V studies will be considered as potential candidates to be conducted in collaboration with Energy Division and to be funded from EM&V allocated for Overarching Policy and Support Projects and specifically, for Strategic Plan Update Studies, consistent with D.10-04-029, Attachment 1, p.4 p.18. These studies are discussed further in Section 6.

From: Fogel, Cathleen A. [mailto:cathleen.fogel@cpuc.ca.gov]
Sent: Friday, May 07, 2010 4:40 PM
To: Redacted, Baker, Simon, Redacted
Cc: Ramaiya, Shilpa R; Redacted
Subject: RE: PG&E ZNE Supplemental AL for ED review

Sandy,

I appreciate PG&E's responsiveness to our initial thoughts on the funding source for that report, omitting that direct statement from the PIP will give all of us time to consider that more.

Its a pity to lose Anna, and I hope that PG&E is able to replace her soon. I believe Peter participated in the meeting on the ZNE Lab at SCE today which is great, and I just met Redacted yesterday (welcome aboard.. and fasten your seatbelt!).

Best,

Cathy

From: [Redacted]
Sent: Friday, May 07, 2010 3:55 PM
To: Fogel, Cathleen A.; Baker, Simon; [Redacted]
Cc: Ramaiya, Shilpa R; [Redacted]
Subject: RE: PG&E ZNE Supplemental AL for ED review

Hi Cathy,

PG&E filed the ZNE supplemental advice letter today incorporating your comments into the PIP. The comment we considered and did not incorporate is the suggestion that the \$8M increase in the ET budget could fund the assessment for the ZNE technical potential. The PIP on p. 7 does mention that "ETP will provide insights on ...market potential ... to support the ZNE Pilot Program", however the ZNE study was not included in the ET budget and does not fall within the four priority areas targeted for the additional \$8M (Scaled Field Placement, Demonstration/Showcasing, Technology Supply Side Efforts and Incubation). More importantly, we believe that the appropriate funding source for these studies is EM&V, especially given the budget categories that have been identified by Energy Division and IOUs (as shown in the EM&V Decision Attachment 1 at p. 18). However, we do understand that more discussion is needed within your staff, and with PG&E on the scope of the proposed studies. Therefore, we have revised the AL and PIP to remove the explicit statement that it be funded from Energy Division's portion of EM&V to leave room for further discussion as Energy Division and IOUs continue prioritizing the EM&V projects for the 2010-2012 program cycle.

I also want to let you know that today is [Redacted] last day at PG&E as she has decided to leave the company to pursue work on independent energy, water and waste projects. [Redacted]

[Redacted] will be PG&E's main contacts for the ZNE Pilot Program.

If you have any questions regarding our advice letter, feel free to contact me.

~Sandy

From: Fogel, Cathleen A. [mailto:cathleen.fogel@cpuc.ca.gov]
Sent: Wednesday, May 05, 2010 5:52 PM
To: [Redacted] Baker, Simon; [Redacted]
Cc: [Redacted] Ramaiya, Shilpa R; [Redacted]
Subject: RE: PG&E ZNE Supplemental AL for ED review

Sandy and Anna,

In an effort to provide feedback early on Thursday rather than later, please see the attached, prepared by myself. If Jordana Cammarata and/or the EM&V team has additional feedback, we will send that on tomorrow as well.

Please note there are some typos on the AL cover letter as well (regarding protest dates).

Thanks for the opportunity to provide advance feedback. Please feel free to email or call me with any clarifying questions.

Cathy

From: [Redacted]
Sent: Tuesday, May 04, 2010 3:29 PM
To: Fogel, Cathleen A.; Baker, Simon
Cc: [Redacted]; Ramaiya, Shilpa R; [Redacted]
Subject: PG&E ZNE Supplemental AL for ED review

Hi Cathy,

Attached for your preview is PG&E's ZNE supplemental advice letter, revised PIP (in red-line for your convenience), and metrics presented in the new format developed in the statewide program metrics process. We are planning on filing this on Friday (5/7) so please provide me any feedback you might have by Thursday afternoon and feel free to call if you have any questions.

[Redacted]
PG&E - Regulatory Relations
[Redacted]