PG&E Public Workshop #1
Pacific Energy Center
March 2, 2005

Attendees:

PAG Members:
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By Telephone:
Bill Pennington, CEC.

Meeting Presenters:
Duane Larson, Grant Duhon: PG&E

Public:
Maria Sanders, Community Energy Services;
John Kotowski, Global Energy Partners;
Phil Welker, Diane Levin, PECI;
Craig Tyler, Tyler and Associates;
David Boyd, RCEA;
Steven Sokolsky, Bevilacqua-Knight, Inc.;
Jim Kelsey, KW Engineering;
Ken Moore, RLW Analytics;
Bill Knox, Sarah Spurr, VEEC;
Karin Corfee, KEMA;
Eric Lounsbury, ICF Consulting;
Rita Norton, RNA, LLC;
Grant Cooke, Intergy;
Bill Miller, Jennifer Barnes, Misti Bruceri, Mona Yew, PG&E.

By Telephone:
John Hoffman, Bo Enterprises;
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Danielle Dowers, HHWP;
Judy Nickel, Fisher Nickel;
Amy Mingelli;
Mary Tucker, City of San José;
Robert Mowris, RMA;
Neal DeSnoo, City of Berkeley;
Scott Wentworth, City of Oakland.

Meeting Facilitators: Annette Beitel, Duane Larson, PG&E.

Welcome and Housekeeping – Annette Beitel and Duane Larson

Welcome to our first Public Workshop. Many members of the public attended and actively participated in our Program Advisory Groups. We'd like to keep the workshop informal, with lots of opportunity for discussion, even though we have quite a bit of material in the meeting package. We would like to hear ideas, recommendations, etc., and have a discussion with the group.

First, I would like to briefly discuss the agenda for the day:

We'll start with a discussion on Energy Efficiency (EE). PG&E is currently implementing EE activities through the PGC funding as well as procurement funding. There is also funding for other public purposes such as low income assistance, demand response and self-generation.
In previous PAG meeting, we prepared a handout of the current funding levels. At that time, we received a request for 2006 funding levels, which we will hand out at next meeting.

// Action Item: Prepare summary of 2006 – 2008 funding levels for various public purpose programs. //

We would like to discuss the portfolio sensitivity analysis we did, which is intended to be illustrative. It includes some general assumptions to see how they might affect the overall savings impacts.

Then we'll discuss some high potential markets and measures we've identified and some related information we've developed.

Finally, we'll present a new model we're considering about how to present EE and demand-side management (DSM) to customers. This idea is still at the drawing board phase, and we'd really like feedback.

Finally, we encourage everyone to let us know what information you'd to receive prior to June 1.

Introductions – All

Beitel: I am in the procurement group and the lead on the 2006 – 2008 planning for the Demand Side Policy, Planning and Analysis group. In addition, I'll be leading the 3rd party solicitation process in the third and fourth quarters of this year. PG&E has moved the 3rd party solicitations and program management to the procurement side of house to ensure they receive management attention they need and deserve, and to avoid any potential conflicts with utility-designed and implemented programs.

Larson: I'm on rotation as the lead for PG&E's Customer Energy Efficiency group's planning process for 2006 – 2008 programs. My regular position is Manager of the Residential Energy Management group.

Policy Framework – Annette Beitel

Since most attendees today are pretty familiar with this information, we'll go through it fairly quickly. The primary driver is the Energy Action Plan which places EE first in loading order. Policy requires that utilities pursue all cost-effective EE in state, not just cherry-pick measures, but get all, including those measures with a higher incremental measure cost that are still cost-effective.

We would like recommendations on best way to go about this.

Utilities filed a Long-Term Procurement Plan (LTPP) in 2003. In it, we outlined the EE savings goals we could reasonably achieve, and the budget we would need to achieve the goals. In the CPUC decision (targets decision), CPUC increased the energy savings goals and adopted savings targets. This current process is focused on achieving those goals in 2006-08 time frame. CPUC has not adopted a particular budget to achieve targets. We still need to determine the necessary budget while remaining cognizant that there will be rate impacts with increased budget. Our goal is to try to achieve targets, and minimize rate impact on customers.

At last PAG meeting, we received a request for a list of CPUC adopted targets, our filed budget, and an estimate of additional budget requirements to reach targets.

// Action Item: Provide a list of CPUC targets, filed budget and estimate of additional budget requirements to reach targets. //

Governor's Green Building Executive Order. The policy objective is a 20% reduction in state-owned building energy use by 2015. He also asked the private sector to work toward same goal.

Greenhouse Gases. We report greenhouse gas reductions as a result of EE programs and will continue to do so going forward.

Levin: Is there a definition of cost-effective measures?

Beitel: We have definitions, but CPUC is re-writing policy rules which will lay out cost-effectiveness requirements.

An additional issue in this cycle is that traditionally, the metric is cost-effectiveness. On the supply side, the metric is levelized cost. We are trying to move to a combined metric of levelized cost in addition to TRC. If we are to treat energy efficiency as a resource, we need to consider how demand-side resources compare to supply-side resources using supply-side metrics.

Handout 1: Funding Levels for Energy Efficiency and Related Programs – Duane Larson

Give perspective of various public purpose program funding levels. EE is the only item that is required to be cost-effective. There are two sources of funding – PGC and procurement.

Low Income Energy Efficiency (LIEE). Not part of current June 1, 2005 filing. It's on a separate docket at CPUC. But, EE savings are part of targets decision. Currently have $56M program – 1 of 4 families in our territory qualify for low-income assistance programs, or about 1.3M households. CARE provides a discounted rate for low income families, who are also exempted from surcharges, which equals about a 30% reduction. Last year, the impact was $258M.

Combination of Energy Efficiency, Low Income, Demand Response, Self-Generation, and CEC Renewables and Research programs translates to a total investment of $750M.

We need to be sensitive to impact to ratepayers. Our goal is to increase yield ($/unit of energy) and try to hold budget steady. EE is a resource, not a social program. It is a critical element of reliability. We already have many other social programs. The PCUC decision was focused on treating EE as a resource.

Design Team Goal is an "…unequivocal focus on energy savings…" Cmmr. Kennedy, from decision.

PG&E's Primary Portfolio Design Drivers are cost-effectiveness, Integrated Demand-Side Management (IDSM), statewide consistency, non-utilities programs for innovation and competitiveness, partnerships.

Handout 2: PG&E's Customer Base – Duane Larson

Territory characteristics: Very diverse, large geographic area with several different climates. There are some local characteristics and opportunities that may not be applicable in Southern California.

Note the comparison between the number of customers and their energy use.

Speaker?: Do you have a breakdown of energy use by county? Last one seen is from 2000.

Miller: Don't know, will look.

Duhon: I believe there was an action item from last meeting re: breaking out energy use. Don't know specifics.

Speaker?: By customer class? Only interested in commercial?

Kotowski: Interested in industrial also.

Larson: So, we should break it out by customer class.

// Action Item: Provide energy use at county level by customer class or NAICS code if possible. //

Handout 3: 2005 Program Descriptions – Annette Beitel

You can see from the handout that there are many programs. We have received feedback that this causes customer confusion. We'll discuss our ideas for paring down the number of programs this afternoon.

Welker: Note that commercial, industrial, and residential are rate class descriptions, not markets.

Beitel: Yes, that is very true, thank you.

Would like to hear from group—what's missing? Commissioning perhaps, industrial work? What markets have greater potential but not sufficient focus? What markets are now omitted but should be included?

Levin: Is cost-effectiveness based on kW, kWh, or?

Larson: Need to meet all goals, so we have to determine the optimum mix.

Miller: Let's talk on break.

Handout 4: Current Portfolio Performance – Annette Beitel

This handout was prepared based on a request from a PAG member at the first PAG meeting. When you look at these numbers, it's important not to conclude that 3rd party programs or partnerships are more expensive than PG&E programs. CPUC selected these programs with the objective to fill some niches, especially HTR, which are naturally more expensive to serve. This is a reflection of the CPUC perspective at that time. It is not the view going forward. The Commission now wants the portfolio to be focused on cost-effective energy savings – EE as a resource.

On IOU side, especially on residential programs. The emphasis is on lighting measures which of course, drives cost down.

This is a high level summary of program cost. The costs in this handout are not levelized. We also have an analysis of portfolio sensitivity based on levelized cost which we will present later in the day. These numbers are $ divided by savings. We expect some of the costs will increase.

//ACT: Ordering para. 5 of D.05-01-055 requires PG&E to file program-levelized cost and savings information on March 15.//

Pennington: $/therm seem to be very low relative to cost of providing a therm of natural gas.

Beitel: Yes, that is true. We had to make assumptions about the electric/ gas funding split. We need to get actual numbers from each program. We will be looking more carefully at the gas/electric split for the March 15 filing.

Miller: Yes, for example, the Savings By Design program often analyzed the whole building, but we are required to report electric and gas costs separately. It's often more of an accounting exercise than based on cost itself. There are some of these issues underlying these numbers.

Knox: What is whole building?

Duhon: This reflects an integrated design for entire structures. Analyzing building as a whole, rather than discrete measures. The analysis is relative to Title 24 baseline usually, but there are times when baseline is a process and Title 24 is not applicable.

Handout 5: Niche Opportunities – Duane Larson

In our analyses, we've identified some areas we haven't been able to take advantage of fully. We hope that non-utilities can pick up some of these and contribute to ideas for how best to serve these markets. The list is an example of some ideas we are investigating, interested in other ideas.

Kotowski: So, this is not inclusive, just examples.

Larson: Correct. Trying to see whether these fit naturally into IOU piece or non-IOU.

Sanders: What about fuel switching? Will the policy rules allow?

Larson: There is an ongoing discussion about fuel-switching. There are many perspectives. Some places where it's a good idea. For example in residential new construction, it's better to use gas vs electric clothes dryers. If single fuel utility, likely to be less excited about it.

Miller: In the recent policy workshop, the ALJ proposed bringing fuel-switching back. PG&E's position is that where makes sense, we support it. The burden is on the proposer to show it actually makes sense. Interested from several perspectives. One of niche ideas is utility versus non-utility fuels. Likely that ALJ will produce next version of policy rules as result of internal discussions and recommendations from stakeholders. It will probably be included, but can't say how.

Beitel: Let’s discuss niche opportunities.

Welker: Sometimes niche opportunities are very specialized, sometimes very straight-forward. There are two kinds of approaches, target markets, and technologies that cut across markets. For example, take refrigeration. In food-service walk-ins, (campuses, restaurants, etc.), the approach and needs are different than for small grocer category.

Beitel: Good point. We're looking forward to more discussion to help make this model work.

BREAK

Handout 11: Customer / Market Portfolio Model – Grant Duhon

There may be a better way to approach customers than our current structure. Not for lack of thought, things ended up being fragmented. The basis is a mandate from CPUC to use the 14 budget buckets established in Mowris report in 1990s. While that is a great way to look at equity, not necessarily a great way to address markets. Where is intersection between technologies and markets? How provide equity and maximize opportunity on technology basis and market basis?

What do we need to do to accomplish that end? Simplify the way we approach markets, streamline messages, facilitate customer involvement, approach market with same cost-effectiveness information that private markets use. Don't pursue something that won't provide a return on the investment that is attractive to the customer.

It's not the customers' responsibility to sift through programs. We need to focus on customer needs. Also need to determine the market need, build market and customer wants and needs into program up-front. Always need to adjust original design based on market response and customer feedback, but need to consider market information up-front.

We also need a unified marketing message. Central customer referral clearinghouse.

In this model, we envision two ways to determine savings – calculated savings and deemed savings. This is not the current residential/nonresidential split. For discrete products, discrete areas, average savings---use deemed. Opportunities to pursue calculated rebates in niche markets. Doing it currently, but could do more effectively. Envision cross-functional teams—people who know markets paired with people who know technologies. No issues with serving all customers, but realistically, if meet targets, need to concentrate on projects with large savings potential.

Emerging Technologies feed the pipeline; we need to do that for future. Commissioning is a measure to increase potential. View the building holistically, rather than measure by measure. Education and outreach are an important part of all programs. We know we need to provide education to move the market. Rebates alone will not sustain the effort. Rebates result in a one-time only change, not permanent. Customer tends to see the value of the incentive, not the value of the change.

Idea is to use model to simplify the way we approach the market. Use market specialists and technology specialists to design interventions to maximize efficiency in the marketplace.

Beitel: Vermont is already taking a market-based approach to customer design.   We would like to present customers are presented with options, not programs.   We can present customers with different options for saving money and energy.   3rd Parties fit in as one of the options for customers. If a 3rd Party program is focused on groceries, the menu of options from that program would be one of the options presented to the customer, along with utility and other program offerings. This does not mean that 3rd Parties wouldn't do their own marketing. We have had feedback that utility brand is helpful in gaining credibility. From the customer's perspective, it would be seamless, just an additional marketing tool.

If have 3rd Party offering, how much of utility handshake is necessary to make successful? Is it just listing on web site, or is there interest in utility analyzing options for customer? One possibility is that when an opportunity is identified, utility contacts 3rd Party, then the 3rd Party calls customer, etc. OR, utility could always make the first call. Some ESCOs don't want utilities doing their audits. As they are making performance guarantees, they need to do the background work themselves.

Would like additional feedback on preferences, recommendations, etc..

There are a couple different levels of marketing: FYP (mass marketing), and other outreach. We received a request from last meeting to identify how much funding goes to mass market versus to specific programs.

// Action Item: Distribute list of marketing funds distribution between FYP and individual programs. //

Tyler: From 3rd Party perspective, there are many direct install programs that provide measures you also offer. How will you incent people to go through rebate program versus direct install?

Larson: We need to reduce overlap. Currently, there can be three different ways to incent customers for the same measures.

Levin: If there's another program that may be appropriate, the rules state that we need to inform customer. We do that. So, we promote offerings that are outside our offerings.

Larson: Need closer management to reduce confusion. Hopefully, we'll continue to require referrals in 2006.

Sanders: Many people don't know they want or need energy efficiency. The only way to get to them is to go door-to-door and spend time making them comfortable with changes. Then, they can see the effects. 3rd Parties are getting at folks that don't necessarily know they need EE. With new targets, need to do more of that. Even if they know they want it, many don't want to take the time/effort to hire contractor, research prices, etc.

Duhon: Problem tying to a bigger campaign.

Sanders: The more important issue is that some will not take advantage of rebate. Need a lot of hand-holding. That's where direct install can get at some deep savings. When speak of competition between programs, sometimes they aren't actually competing.

Knox: Our small business direct install program delivers much savings. Issues: direct install is not necessarily free. Almost like a sliding scale—100% of cost is covered for smallest customers. As the customer gets bigger, the rebate is less. Not really a rebate, it's an incentive per kWh saved. Naturally puts higher percentage where most needed. Method of program delivery is tied to success rate.

Beitel: We are advocating for flexibility around rebate amounts. Now, CPUC approves the rebate levels. We'd like to be able to have more flexibility.

Knox: There are some differences in programs around the state. Keep that diversity.

Beitel: We're delighted to hear you're sharing best practices. We are also considering a way to formalize sharing best practices by holding regular meetings to share information.

Corfee: I fully support a mass-marketing campaign. Look at FYP benefits in 2001. There were lots of benefits, then with funding reduction, much snap back. Also, as a 3rd Party vendor, we could benefit from the PG&E brand.

Corfee: Also, there's a lot of competition for contractors. With increased funding for our program, we're having a big problem finding contractors.

Kelsey: I'm very excited about overall policy directing programs to be more cost-effective in general. Sometimes we get caught up in day-to-day competition for the pot of funds. Really, the competition is on supply side—it's the next AZ coal-fired power plant. On audits, we found ways to work with ESCOs to deliver audits. They have important role. It is a business with a certain model, priorities not always aligned with energy savings measures. Always looking for high capital measures, rather than low-cost measures like retro-commissioning. We found ways to partner through BTU program. The retro-commissioning part is separated out, then ESCO has their part—they do chiller retrofit, we do retro-commissioning.

Beitel: How did this partnership evolve?

Kelsey: Kind of dumb luck. Working with ESCO and with BTU program—saw opportunities. Got everyone together, came up with plan that worked for everyone.

Kotowski: Universal branding is great idea—but don't overestimate. Most customers are not pro-active, need to be encouraged. Even large companies, energy efficiency is not their business.

Larson: Any comments about technology and marketing diversity? What about ethnic diversity?

Kotowski: In Southern California, the population is heavily Hispanic. We have staff that are fluent in Spanish. Also sub-segments of markets are Laotian or Vietnamese. A lot harder—don't know until you get there…Costs more, but bigger opportunities, as these customers often haven't had resources or haven't received services.

Moore: Re: not wanting utilities to do audits. As a 3rd Party implementer, I agree. We need to establish a relationship with customer. We are responsible for savings. We'd certainly appreciate a referral and help with billing history though. Now, I'm assuming 3rd Parties will be considered partners, willing to help us. In Vermont—how do they handle implementation there?

Duhon: Actually an energy efficiency utility. They have 22 separate power companies in state. PUC set up independent utility to deliver EE. It's run like a private, non-profit.

Welker: They implement themselves, though it's a much smaller scale. As far as the new structure, the paradigm itself is a customer action scenario. Get people interested, take action, self-select into program activities. Have to make them undertake some level of screening—geographic plus others.

Beitel: What others?

Welker: Business size, organizational structure, business categories (to know resources), internal facility management, etc. In the market research section, recommend adding "identify market structure opportunities. Paradigm is useful—but where do we get to recruitment? Need to go much farther down to the target market level.
Have a sidebar track—take information about market structure opportunities, how fit in with targeted marketing. For the general offerings, perhaps if the project fits into niche opportunities, the other opportunity becomes unavailable.
Recruitment—at intake, the utility can provide beneficial assessments depending on technical complexity. If very technical, person that's responsible for work will need to do it themselves. Assessments need some sorting based on complexity.

Beitel: Also on age of buildings?

Welker: Depends more on the complexity of system and the organizational resources and their ability to respond.

Beitel: Could we assess this through computer interface?

Welker: Don't know—can't be too simplistic. Don't want customer to self-select into a place where they're still wrestling to try to figure out if they fit.

Beitel: Maybe just the initial assessment.

Sanders: There's a limit to the number of people using computers, and how long they'll keep answering questions in one sitting.

Knox: Mass market is appropriate on residential side. There are far fewer commercial accounts. May have to review commercial property-use patterns. In-depth work with people that completely understand the industry, for example, the financial goals of investors in commercial real estate. Recommend doing serious research to reach 50-60 people to get huge segment of market. Outreach methods are very specific—large commercial versus small and medium.

Duhon: Don't mis-understand, this representation is not fully explanatory. Mass marketing is not the only thing we do. Just the overarching umbrella underpinning the structure of how we operate.

Beitel: Targeted marketing. How is it done most effectively? One option is to have utility account representatives do marketing—or send specialist.

Knox: Don't know. For very small markets, you may find expertise within or outside of utility. Nothing to do with size of acct.

Levin: Put onus on people that know market best to be primary driver to deliver message. Avoid confusion. If you have to enter the rate, most people don't' know. Is it relevant anymore with the market-based structure?

Beitel: One idea is for customer to type in address and name, then the computer pulls up account number. The sorting process would be started automatically, behind the scenes, forget the rate class.

Corfee: I agree with Diane. Would also like to add that one effective screening tool is to link to their usage history. Get the facility square footage and benchmark against other similar facilities.

Beitel: We'll talk about that later. One idea is to look at Energy Use Intensity (EUI) and benchmark.

Knox: Also look at own versus rent.

Kelsey: Hard to work off addresses. I would design around account number.

Sanders: Some people never see their bill.

Levin: Right. Also, if a person is at the web site and they don't have their bill handy, they may just give up.

Kelsey: 1st contact point. Large commercial and industrial customers, the first person needs to understand their industry and the technologies at their site.

Beitel: One exercise on white board—initial contact is critical. Start with industrials.

Sanders: Small versus big.

Kotowski: Industrial is the hardest.

Kelsey: There are two entry points. The facilities engineer handles day-to-day operations, but has no financial control. Then there's the accounting side, they make the ultimate financial decisions, but may not know the technologies.

Kotowski: Use both the technical person and the executive (CFO, CEO, or Operations Manager). It works, but it takes time as it's a sequential process. Don't go around facilities person.

Beitel: So, the web is not the entry point for industrial.

Sanders: I'm confused. What if there is a print shop with a lot of process load, but very small staff, and a commercial classification? They have industrial needs, but won't come up in industrial screening.

Beitel: Trying to figure that out, as there are so many different possibilities.

Kelsey: For smaller customers, the financial and technical person may be the same.

Corfee: Say it's a glass manufacturer. You would send in a technical expert. But it would also be beneficial to send them together with a PG&E representative.

Beitel: Yes, they'd get the PG&E "handshake", then the analysis would be completed by the technical expert.

Welker: With large customers, if there's energy efficiency funding, there's likely ESCO interest. With small, there's generally not enough money to interest them. Need to figure out how to leverage existing service providers—get them involved. Leverage existing relationships.

Kotowski: The technical person is usually not a single person. Helpful to partner with an industry partner, such as the Organic Growers Association. They help make the initial contacts, then bring in the technical expert behind that. Without that lead-in, often don't get listened to…

Beitel: So, for small, perhaps one technical person, maybe with a utility account representative. For larger customers, need a team approach.

Kotowski: With small too, you can capture a lot of attention in association meetings.

Corfee: Depends on the market segment. We partnered with a consulting company, they were our marketing arm.

Levin: Can become complex—if institutionalize can be very hard. Repeat exposure is helpful, account reps can learn about programs to make best referrals. Conversely, 3rd Parties can set up utility meetings.

Welker: Utility brings credibility with associations, etc. One of screens is whether the utility is aware of the 3rd Party providers.

Beitel: Markets are different. Generally, how can the utility be helpful? Start with some recommendations we've already heard-

- Going to trade organizations to lend credibility, support.
- Utility representative can approach customer along with a technical person
- Web site is a useful adjunct—one marketing channel, not the only one.

Larson: We utilize market actors, etc. a lot. In specialized niches, utilize same model?

Welker: Have to engage them, sometimes they bring their customers. Other types, once you get to their part of the service provision, you may discover gaps. We have had some success in getting contractors to recruit for us, they're happy to be part of program that develops work for them. Need to screen before going door-to-door. If bring credibility to trade orgs, or service groups—they will tell their membership. Not a standard approach.

Kotowski: There is a lot of customization, some commonality, but also a lot of diversity.

Sanders: Partnerships with local governments. Local governments can also add credibility. Can be more effective than utility brand.

Welker: Utility can be a seal of approval that the program is legitimate.

Beitel: One possible role for utility is to be the central point of contact to verify program validity.

Corfee: We have a small commercial program. Our model is to leverage program-approved contractors. Program doesn't even see customer first. Contractors market the program. It would be useful for the customer to have a phone number to call to verify it's a legitimate program.

Kotowski: Some of our customers have tried to use SPC, found it untenable. But still good to verify validity.

Moore: Also use the vendors. Have them open doors.

Sanders: Regarding competition for contractors. Need training specifically targeted to contractors.

Moore: Often the contractor companies don't want to pay for training.

Welker: With infrastructure development, you need to be careful. If in business, they are successful in their own business. Don't need to take on a marginal opportunity. Figure out how to attract right people. Long-term process to develop.

Kotowski: True. Would help everyone if develop infrastructure.

Moore: In my previous job, we emphasized efficient products, but we weren't always familiar with EE program offerings to help sell. Trade organizations are very important.

Beitel: To summarize, some of the ways utilities can provide assistance include:

- Introducing programs to trade organizations – trusted source. Account Services representatives could mention programs when addressing organizations.
- Utility Representative goes in with their technical person
- Website to educate people about third party programs
- Seal of approval and contact number for customer to call for verification of legitimacy
- Vendors – many customers work with vendors and suppliers and trust them as their technical experts
- Lots of customization
- Educating vendors that customers can trust
    - Lighting, HVAC
- Training contractors
    - Screening/training contractors
    - Recruiting contractors into field

Larson: There are a lot of contractors out there. How do we get them interested in this business?

LUNCH

Handout 6: Portfolio Sensitivity Analysis – Annette Beitel

The objective of this analysis is to see how different portfolio design choices would impact ability to achieve targets. We did not increase budget proportionately. We varied the residential/non-residential split, on the PGC side only, and on PGC and procurement. We also varied the allocation to information programs versus resource programs, and the program yields.

Conclusion: Need to improve the yield generally. On residential programs, need to increase yield to maintain the current residential/non-residential funding split. Dropping the information program funding to 25% of current funding levels didn't affect result very much, so likely to keep the current funding level.

At last PAG meeting, we received a request to do same analysis for kW and therms, and to increase the budget.

// Action Item: Distribute revised portfolio sensitivity analysis to public workshop attendees. //

Sanders: There was some discussion of the role of Codes & Standards (C&S) in reaching targets. Any additional discussion about how to handle that?

Beitel: I can summarize the discussion from last meeting. Impacts from the C&S program are not included in our projections, or in the Xenergy potential study. Even though potential has decreased, at this time, we can not get credit for those activities.

Kelsey: As raise savings goals, levelized cost has to go up.

Beitel: We don't have a clear answer at this time.

Kelsey: As saturate the market…

Beitel: We want to get savings with as little impact on rates as possible. Want to increase yield, and also consider changing policies to enable us to get credit in places where we haven't before, like C&S and Emerging Technologies activities.

Speaker?: Estimate cost?

Corfee: Can't answer that. There is data in the study, but is now dated.

Miller: Recognized this at the last meeting also. Now, how do we deal with it?

Kelsey: Understand study is limited and things have changed, but general trends have not.

Larson: Question is to determine magnitude of additional funding. By next meeting we'll have an estimate of range.

// Action Item: Provide an estimate of the magnitude of additional funding required to meet the targets. //

Sanders: Scenario C (handout 6) is closest to goal. In that scenario, Nonresidential Retrofit is less than 1cent/kWh. What can you do for that cost?

Beitel: With large customers, there is a limit to how much we can incent each customer. Sometimes we reach the incentive limit, but there is additional savings.

Knox: Points to importance of Emerging Technologies. Now, CFLs achieve a lot. Need to look for next few silver bullets.

Beitel: There is a lot of emphasis on ET now, but the technologies tend to be pretty expensive when in the emerging phase.

Larson: We need to improve the process of supporting technologies and bringing to marketplace.

Beitel: At last PAG, there was a lot of discussion about how to improve process. One idea is to look to venture capital community for ideas. Improve identification of private sector activities to commercialize emerging technologies.

Handout 7: High Potential Markets – Annette Beitel

The pyramid illustrates how we intend to present an integrated package of DSM services to the customer.
Also, we've identified the highest potential markets, and within the markets, some of the highest potential measures and appropriate services. We have received feedback that it would also be helpful to identify high potential markets (in addition to the highest potential).

Welker: the information here is centered around that which is easy to quantify. Need to know how to identify target markets—what characteristics, what market structure. Need more qualitative information about the structure of markets to help target activities.

Beitel: Jennifer has agreed to help quantify how much money to spend on market research.

Welker: The idea is not to launch on a path where you have to build a huge econometric model. Create a working model for how to work with various industries. Then begin targeting and identifying structures.
First, create a premise to enable you to pick and choose.

Corfee: There is a need for market characterization and baseline by segment for those that offer highest potential. For us, we need information about measures within the segment.

Miller: Market characterization studies have been done recently, but not at that depth. No identification of decision-makers.

Welker: Before you go to that level, need to identify targets. Need a staged process.

Beitel: Thank you. Any other thoughts?

Corfee: Constraints releasing customer data. We have a small commercial program – don't know if customer is under 100kW or not. If we partner with you, will we have more access to this type of data? And billing data? Streamline this process?

Beitel: For example: Would a list of all customers within a particular range in a particular geographic area meet this need?

Corfee: In the East Bay partnership, we have been able to get a similar list. Would new structure be similar?

Beitel: Our objective it to make it as streamlined as possible.

Handout 8 – Future Savings Changes Resulting From Changes to DEER and Title 24 – Duane Larson

The overall DEER revision impacts on portfolio are as follows: lose 22% of kWh, 19% therms, no change to kW. Majority of loss is in residential and small business, more like 40% loss for those areas.

Knox: Is this because of the change in the baseline?

Larson: No, just the change in savings from revisions to the DEER database. There are also changes to state standards, but that isn't included here. Our goals were set based on the market and technical potential. Not necessarily practical potential. Trying to identify actual, practical potential, focus our efforts and 3rd Parties to achieve that as cost-effectively as possible.

Trying to identify these areas and avoid just raising the budget in response to increased goals. Use E3 study to help calculate cost-effectiveness.

Levin: What's happening with the DEER update process? More user-friendly? Results available?

Barnes: Two phases. 1st-recalculating non-weather sensitive measures, is complete. Searchable database on EEGA web site. Now, updating weather-sensitive measures, scheduled to be posted by end of July.

Handout 9: Future Potential: High Potential Measures – Duane Larson

I'm not walking through this one slide by slide, just want to show all the different information we're dealing with and some of the conclusions we've reached.

We've created an HVAC "Pag-ette". Sent initial ideas to other IOUs. Please let me know if any of you want to be part of the PAG-ette.

Moore: Will data be available to all?

Larson: A summary report, yes.

// Action Item: Add Moore and Sokolsky to the PAG-ette member list. //

Sanders: Do you just want comments about whether upstream will work?

Larson: Any thoughts about how to more effectively do it than what we are currently doing. Need to reduce overall costs, increase market penetration.

Beitel: An action item from last PAG is to identify what measures are appropriate to move upstream. Identify opportunities and challenges, such as EM&V.

//Act: Create matrix that can be used to identify measures that could be moved upstream or mid-stream.//

Welker: Mass-market measures, or products. In residential market, there are retrofit options, and new construction options. It's appropriate to target markets differently. For example: Light bulbs versus appliances. There is not one single approach for all. The retail decision about a product is different than decision about new homes.

Larson: Also hard to deal with installation when upstream.

Levin: On the commercial side, when packaged HVAC went upstream, in the customers' view, it went away. It's not clear which distributors are involved in program. Can be more cost-effective, but it may not trickle down.

Larson : There's no awareness in the market that this is happening.

Sanders: There was a POP rebate, I never saw it anywhere. Counter personnel did not know either. Many retailers don't carry product, or very little.

Kelsey: Status of upstream motors in Utah. There the upstream program incents vendors, so a premium efficiency motor is same price as standard.

Larson: Upstream motors is a natural upstream measure. Also, gas water heaters.

Sokolsky: From experience selling integrated packaged measures, upstream is the only way to disseminate to a lot of people. Mass market concentration. In our home performance contracting program, we view the house as a system, from affordability and comfort perspectives. EE is a good by-product.

Welker: The problem in past is that the budget and planning timeline was only one year, so we've only been able to do promotions. As you go upstream, you're "going into business" with them. Different relationship, need a longer-term perspective.

Larson: Commission had important realization that longer program periods are more effective. For those running direct install programs, does the package you are currently installing include the maximum number of effective measures?

Sanders: We do lighting only, but do that as comprehensively as possible. But for some, like restaurants, biggest issue is refrigeration. Need to return to them later.

Larson: Restaurants—another opportunity is efficient spray nozzle.

Sanders: There are a lot of things we could be doing.

Knox: Lighting is tenant decision, HVAC can face split incentive barrier, between the tenant and owner.

Corfee: Similar in our program, with contractors marketing the program, they are looking for most cost-effective, low-hanging fruit to result in no co-pay for customer. When we go to customer and suggest others, customer often willing to add them. Contractors know that fastest way to make sale is "no cost".

Larson: Directives in the decision are to design in such a way that we don't create lost opportunities.

Corfee: Current program not designed around deemed savings. Trend toward doing this…most cost-effective way to do this. Using deemed can create lost opportunities. We have check and balance by doing pre- and post-inspections. Hard to keep cost down and offer comprehensive services.

Sanders: We don't use contractors for original sale. Do audit internally, which adds cost. Program policy is not to cherry-pick. We have 60% participation rate. All have co-pays. No free projects.

Corfee: It's also an educational effort, it takes time to work with customer.

Moore: Post-inspection is part of sales tool. Make sure contractor did good job, program will help resolve any issues.

Levin: Almost all have co-pay in our program also. Need some guidance. Based on presentations today, more inclined to design for cherry-picking to keep costs down.

Beitel: One recommendation we've received previously is on-bill financing. Could help bridge the gap.

Levin: It's not always a financial issue. Different measures have different rebates. We try to be consistent with Express Efficiency, but its hard to do that. Lighting is different than HVAC.

Wentworth: Amen to on-bill financing. Advocate for comprehensiveness, capture opportunities and investing in the long-term.

Moore: Financing helps.

Discussion-several speakers: Pre-inspection helps ensure there are few lost opportunities. Contractors design so it's free to customers. Try to tell contractors how they want the program run. Try to squeeze whatever we can out of each site. Already acquired customer,

Moore: On-bill financing would be very helpful.

Corfee: What is the likelihood that on-bill financing will move forward?

Larson: We are much closer to working with financing in general, rather than on-bill. There are issues re: bill. Not touching billing system at this time. Decided to work with other financing options.

Sanders: How would you deal with a customer that has added other load, so usage actually increases after retrofit?

Larson: The payments would not actually be a function of their bill, but calculated savings from the measure(s). We had a successful residential loan program. Zero-interest financing was very successful. Other efforts since that time have been less so, never actually had zero interest since then.

Summary of Local Government Commission (LGC) quarterly meeting for local government professionals. – David Boyd

Began dialog to define a vision for the future. Scott Wentworth and Neal DeSnoo were also at the meeting. Acknowledged that local governments provide unique structure, special perspective, and access to information. Local officials are a good channel to get the message out.

We also discussed the need for partnerships, and to establish a dialog up-front. Need to set clear goals that are win-win, and understand driving forces and needs. Assess level of contribution and skills individually. It's not a cookie-cutter approach, it's a custom design. Rather than specific design, establish a framework. Some advantages of this framework are to avoid the funding cycle dance, and establish long-term relationships.

De Snoo: We need to build a long-term infrastructure for marketing and delivering savings. Extend well beyond three-year cycle, becomes institutionalized.

Wentworth: Working on 10-year plan. Long-term planning is important. The meeting established a framework. Helpful to hear ideas, and when a partnership is appropriate versus a regular 3rd Party solicitation.

Sanders: After operating a program for four years, access to communities becomes easier. Levelized cost, and lowest cost measure focus, may create a situation of people virtually throwing CFLs through the door. Local organizations can help ensure that people get high quality service.

Beitel: Pre- and post-inspections help also. Would it help to have some definition of comprehensiveness as a requirement for funding? What is the minimum threshold?

Corfee: When in community for long time, build momentum. community partnerships add that value, with longevity of programs. Experimented with comprehensivenss—the more comprehensive, the lower the participation rate.

Sanders: We can go back to customers that we know have refrigeration. Even though we have a second transaction cost, it will be less expensive than first. If they've had a good experience with us the first time, it's easy to go back.

De Snoo: Suggestion of framework for partnerships—three types.

- Supplement to statewide programs—market and outreach add value to statewide programs.
- Collaborative effort—deliver same measures, different way.
- Codes and Standards approach – affecting implementation of C&S at local level.

Beitel: It is appealing to categorize partnerships into a couple broad categories instead of customizing each time.

Knox: We are operating as a coalition of four local governments. Coordinate efforts with partnership programs in area. We have more flexibility and can achieve goals better than if we were in formal partnership. Things like lists of contractors, we see liability differently than PG&E. I see third party programs as a different level of partnership. Innovations, delivery channels, this is where independence is needed. This is the strength of an informal partnership.

Beitel: To clarify, in the first model, the program would use co-branded utility materials, and the local government does the marketing. For the second, customized model, we'd have to develop a common understanding of qualifying measures.

De Snoo: Some projects include process improvements, and widgets. Would not want to limit to a specific list of measures.

Sanders: Local governments can provide a model for commercializing technologies in a particular area.

Wentworth: More comprehensive programs should get funding first.

Welker: Three partnership criteria—local governments have local advantage regarding access to the community. They can bring a certain market segment. Local governments are a 3rd Party service provider if they have those skills.
Seems like the purpose of partnerships is to leverage certain specific capabilities. Providers are providers, they shouldn't be excluded, but should be on level playing field, whether local government, utility or 3rd party.

Larson: Possible to require full disclosure of options available to customer? Limit someone under-cutting program.

Wentworth: If I were a contractor, I'd be hard pressed to sell that (Here I am, but you don't have to pick me).

Beitel: Perhaps once we determine what's best for an area, that’s the only program in that area.

Wentworth: Or, maybe more coordination. Maybe allow one implementer time, then another.

Beitel: Are you saying we should allow competition at the customer end? Maybe start with the more comprehensive program first, then send in a less comprehensive program?

Wentworth: I would say coordination, rather than competition.

De Snoo: Offering a hierarchy of services make sense. If the objective is to get comprehensive savings, give comprehensive programs the first bite. If can't close, give others a chance. May be complicated, but goal worth trying to achieve.

Beitel: Sounds like right of first refusal. Could be complicated.

Moore: And the customer may become irritated by multiple marketing efforts.

Knox: You could segment the market by size. Local government advantages in small commercial market aren't as significant for larger customers.

Moore: We work with the Marin Green Business Program and ABAG. Those are not implementation, but information programs that bring us leads, introduce customers. We do implementation. In our programs, larger customers are the bulk of savings.

Sanders: We work with the Environmental Health Department to get to restaurants. Local government representatives are on many sites at one point or another. Make sure there's a coordinated attempt. Customer has one point of contact, feed to appropriate program.

Larson: Could be more feasible if coordination plan is set up for that area with our programs, 3rd Parties and local governments.

De Snoo, Knox, Wentworth, Boyd: Yes, capitalize on strengths.

Sanders: Also increase saturation for each customer.

Welker: Want to design for some capacity for comprehensiveness. Want confidence in analysis to know what opportunities are…mix and match direct install, near direct install, and others to build relationship where program is more influential with customer.

Wentworth: That is one of the benefits of a coordinating council. First program collects data for others?

Welker: Customer relationships are pretty hard to toss around. Whole new relationship. Existing long-term relationships within the community. Coordinating an offer is one thing, tossing around the relationship is different.

De Snoo: Have someone act as a "purchasing agent" for customers.

Beitel: Bundling through utility—local government long-term, ongoing relationship

Sanders: Depends on first point of contact.

Welker: Many of the people you want to reach aren't the knowledgeable customer with resources. It's those that don't have the resources.

Larson: Having a set of 3rd Parties with resources to offer to customers, willing to go to customer with you.

Wentworth: I have concern over the transaction cost of going out together.

Larson: If one had a list of 3rd Parties, inform customer of resources, and hook them up. Would increase what you have to offer.

De Snoo: I would like to have the ongoing relationship, rather than just turning them over. Assurances that customer is satisfied.

Wentworth: Could PG&E facilitate this as part of partnerships and 3rd Party contract?

Beitel: Perhaps the post-inspection could include a satisfaction survey.

Larson: in past we measured success by number of programs offered. This caused customer confusion. In future, how do we reduce this confusion, reduce trans. Costs and get most savings as possible. How do we bring together IOU, 3rd party and local programs to accomplish.

Beitel: Would it be useful to have a workshop?

Sanders: It would be good so we could prepare for it.

Moore: IOUs as administrators can require in contract that implementers in the same region get together periodically to coordinate.

Beitel: Action item to have a workshop in the next couple of weeks on 3rd party coordination. How do we do a better job integrating with IOU portfolio? Access to customer data.

// Action item: Schedule Workshops for: 1. , local government panel talk about that model and get input from local governments and 2. Integrating 3P into the IOU portfolio and what can utility do to help 3-P be successful? //

Open discussion:

Welker: Characterizing operation and performance measures "sloppy" implies that they are an amorphous, un-knowable thing. There are similar processes for these and other measures. Problem isn't to make measure consistently defined, but to create a process: create standards, templates and prototypes. Ensure consistent implementation, ensure measures are persistent, and trackable. Widgets have to perform also, retro-commissioning actually ensures widgets work right. Use new construction model to ensure savings.

Miller: Raises agenda item for EM&V protocol/baseline process. 2 critical issues, persistence especially.

Welker: Interesting evaluation issues around activities. Activity is to make sure it works right, then EM&V task is to make sure it works right. Activities that produce data flows should be used. EM&V data protocol is designed to get data where there isn't any.

Sokolsky: For information programs, where will criteria will be moving? How important will education/training component be? There are a lot of benefits that are not easily quantifiable.

Larson: We are committed to education and training. Don't see great expansion, but unless we receive a lot of pressure, we won't be reducing either. Key part of programs. Would like to examine possibility of claiming savings. Working with ACCA—if participate in training, hand-held data collector, collect field info, take credit for the effect. We're not there yet, but would like to go in that direction.

Beitel: We haven't designed it yet, but it's very hard to imagine that we'd cut back on information programs. Emerging Technologies will expand. A lot of opportunity to coordinate marketing and outreach. We have FYP, program marketing, etc. We need to coordinate efforts to maximize impact. Also we need a better attempt to quantify how marketing really affects savings. We all agree it produces savings. On supply side, hard to convince. Would behoove us to try to quantify the value of marketing and outreach.

Also at last PAG, there was discussion regarding the multitude of brands: EnergyStar, FYP, and program brands. Are we using them appropriately to leverage each other? Problem for us is that we're not marketing experts.

Sokolsky: Marketing a new entrant in market that doesn't have brand ID. Having a brand to latch onto, like EnergyStar or the PG&E brand, that umbrella is very beneficial to all.

Welker: Agree, need to get clear about brand strategy. Which is seal of approval, which is identity brand, which is market teaser. If PG&E brand is the identity brand, will want projects to look like PG&E project. If quality brand, then other considerations.

Larson: VP of corporate communications has a good idea where we want to go. Make sure all signals in marketplace deliver consistent IDSM message.

Corfee: Thanks for workshop. Could have been just walking through procedural steps, but I really got the sense you wanted feedback. One idea for Emerging Technologies, Xenergy ran a program from 2001-03 called the Innovative Peak Load Reduction program. It was a grant program—anything and everything could apply as long as it reduced peak load. Reviewed each individually, very open. Really did capture some emerging technologies that we weren't familiar with. Potentially a way to fund ET?

Beitel: Was it a rolling application? Would like to space solicitations throughout the year. Not just one time.

Corfee: You do have to have deadlines though.

Beitel: Yes, but also multiple opportunities.

Corfee: We found that all applications arrived at the deadline. We had two phases.

Miller: That raises the question regarding support for Emerging Technologies. The CPUC is interested in using 20% of the budget to foster innovation. Is there overlap between those two things?

Kelsey: In addition to multiple proposal dates, I also like approach of having mini-proposal as first stage. Takes a lot of burden off small businesses.

Beitel: Absolutely. We are open to design solicitation this way.   Also will be circulating a standard contract to ask for feedback re: changes.

Mowris: Great job. Comment re: Audit programs. We have evaluated residential audit programs and found that 30-40% of customers will adopt measures with 10-15 year paybacks. You may want to consider savings associated with audit programs. Otherwise, you're leaving a lot on the table. Some customers adopt without rebate, you need to design the program to ensure you don't double count. Residential and commercial markets: there is an opportunity for quality installation and servicing. Proper sizing, tight ducts, matching condensers and evaporators, and higher efficiency units.

Mowris: Consider Time-of-Sale (TOS) audit program also.

Larson: We've had many programs targeting TOS, GeoPraxis, CHEERS in past. Haven't given up, but haven't found way to crack the market with real estate industry. Hard to get momentum at TOS.

Mowris: Suggested an energy-wise real estate program to target the realtor community, and get them interested.

Larson: Great idea. Ran that program in late 1990s, but it failed. It's a good opportunity, but very difficult.

Mowris: I appreciate the difficulties, the Geopraxis program also had difficulties.

Miller: Are those audit studies publicly available? We did an earlier version in 1990s on the non-residential side, and we used to claim savings. That study is more than a decade old now.

Mowris: Ours is for the Geopraxis program. Mona has copy.

Drew: I want to plant a seed if you're thinking about accounting for savings in audit and retro-commissioning programs. CPUC may have workshops on evaluation protocols. Could be appropriate time to address that issue.

Beitel: The meeting notes from last PAG will be out tomorrow, this one in about a week. Next PAG is March 23. Will do public workshop in that time also.

Action Items

1. Prepare summary of 2006-2008 funding levels for various public purpose programs.
2. Provide a list of CPUC targets, filed budget and estimate of additional budget requirements to reach targets.
3. Provide energy use at county level by customer class or NAICS code if possible.
4. Ordering para. 5 of D.05-01-055 requires PG&E to file program-levelized cost and savings information on March 15
5. Distribute list of marketing funds distribution between FYP and individual programs.
6. Distribute revised portfolio sensitivity analysis to public workshop attendees.
7. Distribute revised portfolio sensitivity analysis to public workshop attendees.
8. Provide an estimate of the magnitude of additional funding required to meet the targets.
9. Add Moore and Sokolsky to the PAG-ette member list.
10. Action item: Schedule workshops for: 1. local government panel talk about that model and get input from local governments and 2. integrating 3P into the IOU portfolio and what can utility do to help 3-P be successful?