CONSERVATION ADVISORY COUNCIL
Notes from meeting on March 9, 2011

Attending from the Council:
Jim Abrahamson, Cascade Natural Gas
Holly Meyer, NW Natural
Wendy Gerlitz, NW Energy Coalition
Lauren Shapton, PGE
Paul Case, ORA
Don Jones, Jr., Pacific Power
Stan Price, NEEC
Don McOdrum, HP Guild
Peter West
Jessica Rose
Lakin Garth
Kate Scott
Nick Parsons
Phil Degens
Sue Fletcher
Leana Mathews
John Volkman

Attending from Energy Trust:
Tom Beverly
Matt Braman
Diane Ferington
Fred Gordon
Marshall Johnson
Steve Lacey

Others attending:
Jeremy Anderson, WISE
Maureen Quaid, CEWO
Adam Zielinski, HP Guild
Terry Miller, CSG
Sam Hagerman, ORA

1. Welcome and introductions
Peter West called the meeting to order at 1:40 pm. The March agenda was accepted. The IRP goals discussion was moved up to accommodate Steve Lacey's schedule.

NOTE: All materials referenced are available on the Energy Trust website.

2. Setting Goals in Coordination with IRP (Review)

Steve Lacey presented information about integrated resource plan (IRP) goal setting. On February 3, we met with the utility roundtable and Energy Trust board, and reached an agreement about consistent ways to characterize savings toward IRP and funding agreement goals.

The CAC needs to review and consider this information, then we'll take it to the board and OPUC. It doesn't need action from the board, but should be reviewed.

We previously had stretch and conservative goals. Conservative goals were 75 percent of stretch. SB 838 allowed investor owned utilities to collect supplemental funds beyond SB 1149 money to help meet IRP targets. Gas companies are under an obligation to do the same.

Energy Trust develops the savings potential, operates programs, and has a savings range, terms, funding levels, and process in place to review the rate of acquisition. We meet annually with the utilities to review progress and to make tariff adjustments. We maintain a 5 percent cushion.

IRP targets and utility agreements both link to Energy Trust stretch goals. Before 2011, utility-Energy Trust agreements had a range of 90%-100% of stretch goal. In 2011, directors adopted a budget that included a range of 85-100 percent of stretch goals. The 2011 utility agreements are aligned to use this range.

There are differences in the ways utilities portray their targets. PGE views it as a multi-year average. Pacific Power uses them as gross savings with a high confidence level in achievement, each year. Energy Trust proposes a single, consistent way of formulating and reporting savings: the IRP target equals 85 percent of the stretch goal. This aligns IRP targets with conservative goals both Energy Trust board approved goals and utility agreement goals. With this convention, utilities can rely on this number to meet their IRP filed targets; where linking IRP targets to stretch goals caused uncertainty about whether they could be attained annually.

Over a five year horizon, our conservative goal still exceeds the Northwest Power and Conservation Council's 6th Power Plan. Program managers and funding agreements will continue to aim at 100 percent of goals.

Discussion:

Stan Price: Remind me again what is the methodological approach that defines 100 percent? How do you center on 100 percent of IRP?

Steve Lacey: 100 percent is our program goal. We use information we get from the marketplace and from PMCs. We look at what's possible at that funding level. The stretch goals are achievable, but not necessarily something we will hit every year.

Don Jones: From a utility user's standpoint, how much is out there? Fred and the planning group set these things. We set our goals, but rely on you to tell us.

Steve: We get third party consultants confirming numbers, also.

Fred Gordon: What is the IRP going to say is out there in terms of conservation? We talk to utilities and staff, get pieces that are there, and things we think we can do. We come up with a growth rate. It's a triangulation of what's out there, the other factors, and what we think we can do.

Stan Price: So this may be closer to what the council predicts?

Diane Ferington: Technology affects it, also. New, higher efficiency equipment.

Holly Meyer: So, really, we're getting consistent about our labels. The IRP is going to be based on conservative goals. The stretch goals will be the funding level?

Steve: Yes.

Steve: We need to help inform the OPUC about this issue, because we're asking the utilities to fund at a higher rate than the IRP goals. The OPUC needs to understand why we're doing this and endorse it.

Holly: If you don't use the five percent buffer, and it keeps getting bigger, is there a cap on it?

Steve: Yes, we have a check-in process with the funding utilities that occurs each August where we review current funding rates and future funding needs. Jim Abrahamson: At that point, utilities can adjust the funding levels?

Steve: Yes. We do this each year so we can fine tune it in a meaningful way.

Don Jones: Using gross and net is a really just a difference in math. We have settled on gross.

Steve: The important point is to know what we're conveying to them. Assumptions can cause problems.

Peter: I'm basically hearing unanimous support. Is that right?

The group agreed.

Steve: We'll take it before our board, and remind them of agreement in February during the utility round table discussions. Then we'll present it to the OPUC. Probably no action is needed, by them but just an acknowledgment.

Don: Don't these roll up into the OPUC metrics?

Fred: Yes, but it will depend on how they set the metrics.

Steve: I just want the OPUC to understand we're funding past the IRP.

Jim: And adjusting annually.

Steve: Yes

3. 2010 Results (Information)

Peter reported on final results for 20110 after the annual true-up. The true-up roles in the full complement of adjustment factors from 2010 and those for earlier years. There were slight increases in savings in 2010. They were more slight for gas than electric.

The final savings after true-up show on a net basis for Pacific Power at 112 percent of stretch. PGE is at 94 percent of stretch. There was little change from the preliminary numbers for Cascade Natural Gas and NW Natural. We were at 78 percent of stretch for Cascade Natural Gas and 98 percent for NW Natural. They will appear in annual reports going forward.

Discussion:

Jim Abrahamson: Kathy Barnard will ask me this. Do these include market transformation savings?

Peter West: Yes. NW Natural excludes Washington, though. NW Natural Washington didn't change from what we had before.

4. Residential Incentive Changes (Review)

Presented by Marshall Johnson and Terry Miller (CSG). The changes will go into effect on May 1, 2011.

First, we're offering a new, windows standalone incentive. Historically, we needed a second measure. For a number of reasons, we're allowing windows as a standalone. The way we did it

before was confusing, caused missing information, frustrated customers, and they were sometimes misinformed. We want to support customers.

Jim Abrahamson: I checked your website the other day, but didn't see this presentation.

Marshall Johnson: It will be there.

Diane Ferington, Peter West: We'll post materials following the meeting.

Paul Case: Does this change R-5?

Marshall: There is no change on the R-5 requirement.

We also evaluated a windows + insulation bonus. We're supporting people selling second measures by offering the bonus. All trade allies will be notified of the changes at least 30 days before they go into effect on May 1.

Jeremy Anderson: Will you have to look at free rider rates again?

Marshall: We determined that it won't impact free rider rates.

With ductless heat pumps, there is a trend toward new equip that doesn't meet our specs, so we're reiterating the specs to alert the market. Northwest Energy Efficiency Alliance is with us on the messaging. Contractors must be trained on equipment from manufacturers to participate.

We will add a Home Performance (HP) assessment incentive of $150 to help contractors get customers to do test-ins. There's a value in having the contractor do it, and it will decrease the barrier for customers participating. There are now 85 HP contractors, and it's viable to shift some of the auditing to them. We'll monitor follow through rates in all program tracks to see how it works.

Clean Energy Works Oregon (CEWO) audit customers don't qualify for the incentive, but we're working on how to shift customers over to CEWO when they need the financing.

Holly Meyer: Is there anything besides the free market that will prevent contractors from raising their rates?

Marshall: We're going to monitor follow through rates, incentives paid where contractors only do test-ins, and numbers of measure installations. If contractors aren't following through, we'll re-address the qualifications for the incentive.

Paul Case: What about paying this incentive once they do a measure?

Marshall: We currently pay for home energy reviews, which aren't free for us to conduct. We're already paying for the capture of data and giving basic info to customers. If you compare that cost vs. this new incentive, we will now get all of the data and the homeowner will get more of a report than they do now. We get some value even if the customer doesn't immediately follow through. We're focusing on a group that is less than 15 percent of our contractor base, and relying on their ability to sell and close projects. Our reviewers are more neutral, and may not sell as well as the contractors.

Holly: That makes sense for ETO, but from a customer perspective, does anything keep that cost down?

Terry Miller: We engage the contractors who perform assessments, and the market will keep the cost from jumping up. But, we'll still monitor.

Don Jones: This isn't a new situation, and it's normal for us to watch the market and put controls in. It sounds like you already know you should watch this. The tools are in place.

Marshall: The incentive goes to the customer, and they are paying part of the cost, so they have some skin in the game. There is an interest on their part to look at options.

Maureen Quaid: It's just important to track it going forward.

Paul: The air sealing and duct testing incentives are still there? They are $70 now for air and duct testing, but will this add to it?

Marshall: With this, you're required to do the additional tests involved with Home Performance jobs.

Paul: Speaking as any contractor, $80 more for the additional HP testing isn't enough to make me change my business model.

Terry: We're hoping it will engage the customers and will work from their direction.

Paul: Is the standalone test still going to be around?

Marshall: Yes and HP contractors will get some eligibility requirement information. The nuances will come out in more formal communications.

Holly: This looks great, but it seems like behind this, there should be a strategy for figuring out communications, since now you have peoples' info to follow up.

Terry: There's a separate initiative we're not covering today that looks more like account management, and tries to address drop off points in our current model. Movement is more toward starting with a call, then going out if it's necessary and we need more info. The goal is landing on the best opportunities and driving them to contractors for follow up. We're doing enhanced advisor BPI training, and account management. Customers can call advisors and talk about things after visiting with contractors. This should help keep their confidence up.

Holly: So the BPI trained advisor will be an account manager?

Terry: A BPI trained CSG employee will do it.

Marshall: We'll bring a more comprehensive review to the CAC in May, we think.

There is a new incentive for solar site assessment of $100 when done with HP assessment. They need to be done within brief period of time (2-4 weeks) of each other. This brings integration between solar and efficiency. They weren't previously as integrated as they could be.

Jeremy Anderson: Is that in addition to the $150?

Marshall: Yes, if they get both assessments.

There is a new incentive for energy efficiency measures + solar. Air sealing isn't a requirement. But if someone does both of them together, they get a $300-400 bonus, which we're in the process of finalizing.

Holly Meyer: What is a solar measure defined as?

Marshall, Diane: Solar PV or thermal both count. A complete solar measure will be defined.

There is a new incentive for efficient septic systems, which aligns with Oregon DEQ. It's for replacement of active treatment systems, meaning they have a constantly running pump. There are lots of potential savings for homeowners.

Adam Zielinski: This is for a pump motor?

Nick O'Neil: It's for a system replacing a constant pump with a variable speed pump.

Paul: There's a problem that has come up with CEWO. It has happened already when a contractor isn't HP or CEWO and they can't help a homeowner who wants those things. How can the larger share of contractors not lose sales when we keep shifting customers toward the 85 people who are HP or CEWO? It's something that's out there as an unintended consequence, but some people are out of this market.

Jeremy: I know what you mean, and it leads to a larger discussion of what you're getting for your $150. If it's like a home energy review, you don't have to be HP to provide it. The top 25 people could do it better for less money. What do you want for your $150? The bulk of the cost is probably paperwork and modeling. Is that right Paul?

Paul: Beyond air and duct testing it's probably half.

Jeremy: Beyond air and duct testing, you can do the same thing for less money.

Marshall: The timing is May 1, for incentives and for the new HP modeling tool (maybe slightly after May 1). In the interim we have the existing modeling tool. We're focusing on consistency between HER results and HP results from the tools. We're looking for consistency between contractor delivery and our delivery. Customers should at least be informed by the same methodology, but with more diagnostics.

Holly: The issue you're talking about is more about CEWO. If a customer is working with a contractor who isn't approved for CEWO, they lose the business because of the missing financing piece. Something needs to be fixed.

Paul: This will motivate people toward HP, but if they already have a relationship with a contractor, it will hurt that contractor when the customer wants HP or CEWO. A large share of contractors may not have a positive feeling about it, and we should be prepared to deal with it. Contractors who aren't in HP downgrade it and don't promote it.

Maureen: We recognize the challenges and want to work with contractors and utilities so contractors can work as subs to the primes and develop these relationships. That contractor can be a sub to the ones who have signed up for the program. We all want to serve the customer and will find ways to collaborate and make it work for everyone.

Terry: How realistic is that?

Paul: It's happening, but some are reluctant, and there's no set way.

Jeremy: The percentage who will volunteer to be a junior partner is a small subset. There's a pride issue.

Sam Hagerman: There are some who will not want to come to this situation. It's a great business opportunity for others. The audience isn't every general contractor.

5. Cost ranges for efficiency installations (Information)

Terry Miller (CSG) presented this information to the group.

Customers are dropping off because of lack of cost information. Their first instinct is to ask what it will cost. We maintain that we're not in the bid business, and we want TAs to do that. Instead, we're going to offer a broad price range that is still small enough to be meaningful. We're going to offer it on the phone, put it on leave behinds, and put it on the web site. The data source is our real two years of program data from 2008-2010. We can use this as a tool for early decision making to get consumers to engage. We want to get them a road map of what they could do. Qualifiers will be included in the language – contractor business models, complex home structures, and other factors are noted wherever a range is shown.

Peter West: We've discussed it before and we've gotten feedback here and at the guild. Using the cost ranges Stephanie proposed struck people as not quite statistically-based. Can you walk us through the methods?

Terry: The ranges were 60 percent to 80 percent of the total, actual range for each measure. Sometimes 60, sometimes 80, depending on the data range and a detailed list per measure based on actual program data.

Peter: This is just introductory. We should look at where we didn't have sufficient data and agree whether or not we really have enough to publish.

Paul Case: This came up many times before. There's good reason for it, but contractors get frustrated because of its historical nature. It's old pricing, not current.

Jeremy Anderson: Insulation went up 15 percent last month, for instance. The people I work for have extreme antipathy toward this. Give average payback periods instead. Payback may look better than expenses, to customers. The problems involved are just huge, from scaring people off to getting contractors thrown out, to just confusion. Call center people spend lots of time trying to explain it on the phone. Most people won't read the fine print and don't have advisors to help them.

Marshall Johnson: Of the utilities who have run this, what was your experience?

Don Jones: Cost data is challenging to get in terms of qualifiers and market connection. I do support the general idea of giving customers tools like this. Paybacks are one way to do it, but cost is really where they land. Using a range, if you're getting invoices from the program, is the gold standard. You need disclaimers behind it. This has the elements of a customer tool, especially if people are stalling out after they get an analysis.

Lauren Shapton: Another approach might be saying “costs up to,” so you have a range of how big this could be.

Jeremy: This just doesn’t work.

Lauren: I disagree. For example, I’m looking at travel right now, and I’m reviewing the guides and looking at the “up to” cost.

Peter West: Lac k of cost information is an identifiable barrier to customers taking the next step, providing ranges is a way to eliminate customer barriers. Lauren’s anecdotal example supports what our research finds. The level of detail makes sense. We’re going forward, and not going back to the other argument.

Adam Zielinski: I would encourage you to lean more toward the 80 percent ranges. Prices do change and this is historical data. Prices do fluctuate. Are CEWO-type contractor costs included? Anything else? There are extra costs for the advocates.

Marshall: They weren’t included.

Maureen: We’ll report ranges as we work with the Trust, and since we have a single bid approach, we realize there is a need for more detail and information. We’ll support this. It might be good to get a focus group as you bring your final design into play.

Peter: I agree, and we can use the trade ally roundtables as one group.

Holly: I’m not saying this as NW Natural, but as someone who would like to do this but don’t understand it. I don’t know how much space is in my attic. If I have a list of available measures it will at least give me a scope if I have some money sitting in the bank. I need some guidance. You could drive a truck through the range. Take off the cheapest and highest 20%, show a model house and talk about range and payback for different things.

Terry: I agree with your comment, and it leads us to pair it with a call to action. Talk to an advisor. It may help people enter the process.

Holly Meyer: It assumes too much knowledge from the consumer.

Peter: Yes, we will need to work on the presentation to make the math relevant.

Sam Hagerman: Give simple examples. Tell what may be needed at different parts of the range. At the high end for insulation might be removing some knob and tube, for instance.

Adam: None of the Clean Energy Works Portland jobs are included, are they?

Marshall: The initial data was pulled for the EPS pilot. We’ll share the info with a small set of customers, so we didn’t include CEWP jobs. We need to decide if we want to break out those tracks. We need to evaluate breaking out by different program tracks.

Adam: Include it all. Don’t include CEW together with subset that doesn’t include it. A CEW customer is going to wonder why they don’t match up. It ought to be representative in some fashion.

Jim Abrahamson: One observation on the point just made. I like the thought of putting more info out to get a sense of magnitude and avoid sticker shock. If it's digestible at the time they look at it, it helps. With CEWO I have kind of wondered as a homeowner, if I looked at major work on my house, would I be looking at CEWO or the whole set of ETO programs like HP? I would want someone from the different groups to talk to me and see what it's going to cost. I can either pay for it, finance it, or take advantage of CEW financing. Will I be looking at bids of apples to oranges?

Marshall: They are similar in their approach. The CEW value is different from HP value. CEWO offers enhancements, like an advocate, no upfront capital and on-bill repayment.

Jim: There is a cost to that. Is there a reference to prevailing wages?

Maureen: Contractors are both Energy Trust trade allies and Home Performance program contractors. We're different because we're a financing program. We work cooperatively to send people to HP if they don't want our financing. Advisors do cost extra, but add some value in getting customers to move forward. I would hope we avoid having two people come out to the house at all costs. We need to create messaging to avoid that.

Jim: If I knew a little about it, I would think of CEWO as bringing financing. I might not want to mess with that at all. I might just contact ETO directly and go through regular channels.

Marshall: Contractors are the conduit for that. They are going to help steer the customers.

Paul: Can we try to add in the payback too? Maybe it would balance things. I recommend that. My view of CEWO is that pricing is different. You get assessment that is free, then you get financing, and a package of incentives. You can pay it off early. HP contractor doesn't have that. He's going to charge for the assessment, give a bid, and the homeowner will need to pay.

Jim: Here's the value I received, the assessment, early payoff, laid out side by side.

Peter: CEW is a separate discussion and we'll have Maureen back to go over the differences and resolve the confusion.

Don Jones: You're basically going the right direction. People are Googling prices, and getting bad information. We don't provide bids, we don't install, but you will still need to talk to the people who actually do the work. This is just another tool in a toolbox to get people going. Keep it updated and it's valuable information for the customer.

Peter: This will be coming back with more specifics. By then we'll have a better look at how it will be presented, defined, and caveated.

6. Evaluation Results for Duct and Air Sealing (Information)

Phil Degens presented impact analysis for 2008 gas weatherization measures. We don't have that many electrically heated homes that came to good results, so all of them in this evaluation were gas. We asked our evaluation committee if we could do this as an internal evaluation. They agreed if we had an outside evaluation committee. Michael Blasnik and Scott Pigg were part of that committee.

The 2008 analysis follows 2006 and 2007 years. Findings are fairly consistent, but air sealing poses challenges.

Key findings: Air sealing bounces around and so does duct sealing. They are also not statistically significant. These are all therm savings. The parentheses are per square foot numbers. Windows are based on retrofit vs. baseline.

Holly Meyer: Is it weather normalized?

Phil: All of these used a PRISM-like approach where we used normalized annual energy consumption. Again, it's all in therms.

Holly: There's such a swing, how do we feel good about the results?

Phil: Gas furnaces were stable; ceiling insulation, also. Some measures were fairly stable. I would probably look at an average in some cases. Floor insulation is going from very significant results to insignificant; same with wall insulation.

Adam Zielinski: Air and duct sealing were fairly odd.

Phil: I'll address those more.

Jim Abrahamson: Per square foot is per square foot installed? Is duct installation the same?

Marshall Johnson: It's linear feet for ducts.

Phil: For ceiling insulation in 2006, on average if you installed it, the average job resulted in 75 therm savings.

Holly: It's not the same homes over time?

Phil: These are the first year savings for homes that participated in that year by the same contractors. If multiple measures were installed, we'll go into the effects. We have no control over how many measures people do.

Fred Gordon: Outside HP, we estimate on a very simple, deemed basis. We're following averages.

Holly: If someone now gets a high efficiency furnace, now they're not getting as much savings?

Fred: We had a split of furnaces last year and this year. If we see a trend we adjust for it.

Adam: Is HP included?

Phil: HP is evaluated separately.

Marshall: In 2008 they weren't separated out.

Fred: Home Performance were included in the normal track back then.

Savings were 62 therms or 8 percent of household load per site. Expected air and duct sealing savings were not there.

For our methods we looked at only participants with full years of utility data both pre and post installation. We created comparison groups made up of future participants.

Weather normalization was done using a traditional Princeton scorekeeping method. We used a variety of typical data screens. We had fairly good fits; not excessive consumption changes. The gross outliers in the first and 99th percentiles were removed, as were sites with too few observations.

There was some attrition. We started with 12,000 and the final group was between 5,000 and 6,000. The change was due to the way some of the data was loaded into the system, which is being resolved now. The next analysis will have a larger sample. The actual sample included infrequent savings measures that were removed.

We used a difference in differences approach – which means we compared with control groups. Multiple variable regression analysis was the other approach.

Findings for 2008 group: 750 therms before installation. Average savings was 82 therms. The comparison group had 748 before, and decreased by 20. So, accounting for what happened with the control group, the average home saved a net of 62 therms.

Holly: in order for that to make sense, it only helps if none of the homes in the control group received incentives. Is that true?

Phil: We looked at that and didn't allow homes that had participated into the control group.

Measures weren't additive. Getting ceiling and floor insulation wasn't additive, we found. Gas furnace and duct sealing was another example where it wasn't additive. That could mean that people are sealing the ducts as they install gas furnaces and are doing a good job, but it may only mean that.

Each time you add another piece into the savings, there is a marginally decreasing return on efficiency.

Holly: It seems like you would see additive savings, and you don't, here.

Paul Case: Sometimes, when good furnace people go in, they replace ducts and fix major problems. For example, the furnace-plenum connection is a weak point, and fixing that makes a difference in efficiency.

Jeremy Anderson: Maybe a large percentage are done by a contractor who does a lot of high quality work.

Adam Zielinski: In air and duct sealing, there is high variability because of the location of duct runs. Is the house a box with no nooks and crannies, or is it an old place with lots of leaks?

Paul: Do the numbers mean few people did duct sealing with gas furnaces?

Phil: Yes.

Multiple regression shows that the savings were attributable to the measures installed. This is the first time we had a large amount of data for many homes. We wanted to see if there was a good fit with our constants.

Holly: What is constant?

Phil: In regression, the explanatory variables have a coefficient estimated for them. The place where the slope of the line cross the Y axis is the constant. The constant is what the average reduction for all participants would have been. It's the average, regardless of the measures.

Fred Gordon: The average is 21 therms, for example, but then you take out the average for each measure.

Holly: That's the 22 delta on the other chart?

Phil: The comparison group isn't in this regression because they didn't install measures. It does indicate that in the multi variable approach, with all things being equal, the test group seems to compare favorably to the comparison group.

Contractors that were doing duct sealing prior to 2008 had similar savings in 2008 to previous years.

We did similar analysis for air sealing, but we haven't seen the expected measurable savings. Gas savings appear to be stable for many of the measures over many program years. Consistent modeling yields consistent results over the four years. In the past, different consultants with different methods have given different results. This time, these were stable. No measure of air and duct sealing savings.

We looked at air sealing contractors active in 2006 and 2007, and we still couldn't find the savings in air sealing. It's problematic because building science says there's something there. I'm going to review these, also in light of changed incentives. The documentation also changed in 2009, and we're hoping that many of these problems will change for 2009. An unnamed contractor was active for part of 2009, so it may still cause problems.

We're considering additional changes to air and duct sealing.

Marshall: In the context of air sealing and requirements prior to 2009, the measure structure might have caused us to think we would get maximum savings for those measures. All the protocols, training and certifications out there caused a group of contractors to push air sealing, but we hadn't adjusted our model yet. We're hoping to have a large enough base of contractors with certifications and training to see if they have better performance than the standard track, less trained, contractors. We're considering the future of air sealing and how it's structured. It's a missed opportunity if you don't do air sealing before insulation. We need to figure out how to get the contractors to do air sealing first. Do we move toward the air changes per hour ACH measures instead of reduction as the standard? Do we change who can offer it? Do we require it before insulation? Do we move away from calling it out as a line item and add it into insulation specs? Do we start a new QC program enhancing documentation methods with digital equipment, on the phone, or something else?

Diane Ferington: Will the roundtable meetings be a discussion place for this?

Marshall: We'll vet these choices at the roundtables. Aside from CEWO we're looking at how much money we can give out for air sealing. Contractors will probably have input, but we need measurable savings.

Jeremy: What's the average CFM50 savings when you do air sealing? That would be an interesting thing to know.

Marshall: One high-volume contractor caused a problem. We'll remove that, and analysis of the numbers will be coming.

Adam: The data presented didn't include data from jobs that were processed as HP per se. There were HP contractors included and submitted in standard track?

Phil: We haven't gotten that separated out yet.

Marshall: The HP numbers analyzed were small?

Phil: We didn't look at the HP track for this analysis.

Adam: The number of HP contractors has increased dramatically, and it may help.

Phil: We want to look at that separately.

Maureen: Consider additional training. The analysis showed that savings are there for people who know how to do it. Quality is a great indicator. Contractor analysis may be indicative of where to target the training.

Marshall: In past years, you could take a 1000 sq ft house and 1000 cubic feet per minute at 50 pascals (CFM50) would be decently tight, where 1800 CFM50 would be about 14 air changes per hour (ACH). You could reduce that by 250 CFM50 and only make a marginal change in ACH50. The way we structured it was based on reduction of leakage, but not relative to the volume of space in the house. We changed the spec because we wanted it to be somewhat open, and wanted to pay based on the homeowners' investment. We paid 50 percent of cost if 300 CFM50 reduction was achieved. We were sensitive to the fact that customers were out the entire cost if they couldn't reach the 50 percent reduction. Since then, we learned there was a concern in 2007 and 2008 data. Looking at 2009, there has to be a more thoroughly vetted process than what occurred in 2009.

Phil: We'll have 2009 impacts later this year. Currently I can't estimate when it will be available.

Fred: We have some work to do before we can even test the efficacy of the changes.

Jeremy: There was also a spec change that allowed us to seal tighter. 10ACH was the threshold, and we dropped it based on industry comfort and experience. HP set up fairly safe protocols to use.

Peter: The simple version: changes incented better, deeper job, with more air sealing savings.

Fred: Changes rolled through middle of 2009, so we don't even have bills to work with until late this year.

Adam: Looking from a BPA contract administration perspective, with RTF revising the weatherization specs and requiring prescriptive air and duct sealing (probably based on CFM50), one of the ideas I thought of was basing things on a percentage reduction. 300 CFM50 reduction is nothing in big, leaky house. In a small house, 300 CFM is huge: 30 percent or more. With ACH50, you might get a 2000 CFM reduction on a big house, and you might get down to 8

ACH50. Using 7 ACH as a threshold will cause small houses to test tight, and large houses won't make the threshold.

Marshall: It's a good idea, but we need to get technical resources and work with CSG on it.

Adam: One of the big things is that people can lie on their test-ins. It comes down to the QA process. You're okay if you find evidence that something was done. It's good to have a checklist on documentation that QA inspectors can use for inspections.

Peter: What's the timeline for those question marks?

Marshall: The third quarter roundtable meetings. We can do incentive adjustments by 1/1/2012, as a potential date, assuming we have something definitive.

Peter: Adam has identified BPA's process, and are we engaging? We need a small industry subgroup working with CSG, prior to Q3, so you would have vetted and pounded around by then, or even sooner, to have something unified. It could be part of the public process; setting the stage for more info.

Paul: Can HP jobs be analyzed before that?

Phil: We have several priorities that we're planning to look at it next. That's one of the next.

Jim: Good discussion. I find it counterintuitive, on the basis of what happened with changes in 2009. Saying that effective air sealing doesn't yield savings, doesn't compute with me. I understand the numbers, but the earlier numbers are so dirty from several situations, contractors, honesty, taking leaky houses and making them a little less leaky, and you won't get savings. In 2009, you put an additional thing in place. I like the idea of additional training and certification, because I can't believe you'll not see savings from air sealing. I'm worried you won't have enough data points to even decide by January. Will I be sitting at this meeting in December, while we're taking air sealing to 0 savings with a new analysis? I'm curious about processes being laid out with CSG, so my feedback doesn't just become a footnote.

Paul: Why not change it now with May incentive changes? Will it throw the numbers off?

Fred: There are steps we need to follow.

Marshall: Similar to Jim and Adam, if you don't believe air sealing saves money, open some windows at home and see how much your utility bill goes up. We know air leakage reduction saves energy, but we need to quantify it and have consistent methods.

Peter: Nobody is disagreeing with that. This is an anomalous result that doesn't make sense. If it didn't challenge good building science, we would just zero out the incentive. You made changes in 2009 and are considering others for later in 2010, BPA is looking at further changes, so why not get together and accelerate them? May 1, isn't a sacred time. Let's accelerate the look at this, and line up with others who are doing it. Look at ways we could get together and move it forward.

Maureen: ACI is looking at this data and drawing conclusions from it. It's nationally a big thing. The building science says it saves, but the installation quality may not be there. You have to do it with quality and standards. Incentive design plays into it, but the installer and quality are more important. The lever needs to be applied on behavior.

Jim: ACI has these numbers?

Maureen: Michael Blasnik is sharing them with everyone.

Jim: Is he sharing the nuances and other side of the story that may cause us to think the earlier numbers are dirty?

Maureen: He's data driven, and he's sharing it.

Jim: He's focusing on the numbers, rather than the other issues?

Phil: We did a lot of analysis of our unnamed, high volume contractor, and if we took them out, we looked at whether there were changes. We need to get a way to make it measurable and one of our purposes here is to work with industry to institute the right spec changes, and still offer the measure, while ensuring the savings we expect are happening.

Diane: In the 2006 and 2007 analysis, we found that some contractors did good work.

Peter: I appreciate the positive way people went at this, because it could have been "shoot the messenger." We need to accelerate reviewing the parts and get things going, with the industry group.

Adam: Michael Blasnik said that infiltration was probably 10% of heating load, but the data sample wasn't large enough to draw firm conclusions.

Peter: This is a good result then. I appreciate the conversation.

7. Public comment

Jim: All of this will be on the web?

Peter: We'll make sure that everything gets to the web.

8. Meeting adjournment

Peter thanked all council members for their participation and adjourned the meeting at 4:21 pm. The next meeting is April 13, 201, which is a second Wednesday, instead of third.