

**Northwest Power and Conservation Council
Conservation Resources Advisory Committee¹
November 7, 2016
Meeting Notes**

Charlie Grist, NPCC, began the meeting at 9:30 by welcoming the CRAC. He explained that live notes are available on the [whiteboard](#) and asked for introductions. Kevin Smit, NPCC, reviewed the agenda.

Hard-to-Reach Markets Meeting Agenda

Kevin Smit, NPCC, presented background information on MCS-1. The primary goals of this meeting are to ensure a clear and consistent understanding of MCS-1, explore how to determine HTR segments, initiate facilitation of shared research activities, and discuss how to get a work product at the end.

Steve Bicker, Tacoma Power, asked if the Council had specific concerns or questions about Hard-to-Reach markets. Grist stated that Council members are lobbied by various groups and are interested in data to guide them through this multi-dimensional issue.

Jim Lazar, Independent, read the rest of the MCS portion of the Act [Slide 5] stressing that it directs producing “All power savings that are cost effective.” He stated that the Council has interpreted this much narrower than intended over the years. Grist thanked him, noting that the Council acknowledges Hard to Reach (HTR) Markets are one of the pieces of the puzzle.

Lazar mentioned a MCS for rate design that should be looked at in the future. Grist thanked him.

Eugene Rosolie, NEEA, wondered how the group would determine where the HRT Market line would be drawn. Smit agreed that this was one of the purposes of the meeting. He noted the goal was to determine and show with data what proportion of the market is being missed.

Bicker stated that the CRAC should focus on determining the criteria of success. Grist noted that the Council envisioned a two-step process; find the underserved markets then fix the issue. He called the CRAC a good platform for sharing information.

Dave Hewett, Independent, noted that HTR Markets typically have higher administrative and other costs which changes what might be “cost-effective” as per bullet 1.

¹ These meeting minutes reflect the conversations that took place in the context of a particular presentation. Presentation summaries are not included in these minutes. The presentations are available for download on the meeting web site.

Lazar felt that there are two kinds of HTR Markets; ones where customers can't or won't take advantage of cost-effective measures and measures with highly diffuse benefits like the horizontal-axis washer. He called the second an information barrier. There was agreement in the room.

Marti Frank, Evaluation + Strategy, added that HTR Market must be looked at measure by measure, noting that one household may be well-served by one measure type and underserved by another.

John Morris, Morris Energy Consulting, asked if there was any thought in linking HTR with the Clean Power Plan's definition of low income noting it could provide real leverage.

Bud Tracy, consultant (Idaho), asked which of the four responsible entities; Bonneville, utilities, the Council and consumers is responsible for determining cost effectiveness [Slide 8]. Smit answered the Council, with local considerations and different perspectives. Tracy said he was still unsure. Grist explained the regional cost-effectiveness threshold of energy efficiency as a resource.

Lazar again addressed diffusion as a barrier to cost effectiveness. Smit stated that this will be picked up later in the presentation.

Rosolie asked about the target time frame. Smit answered 20 years, which addresses diffusion curves.

Tim Miller, Enhabit, asked if there were explicit guidelines to address equity issues or is cost effectiveness looked at across the board [Slide 14]. Grist answered that a 20% added administration cost is broadly applied and there are no specific triggers or mechanisms for equity.

Carrie Cobb, BPA, moved back to the definition of underserved [Slide 7] noting that, because of sample sizes, classifying program data might not help define the underserved portion. Grist agreed saying we should circle back to the definition.

BREAK

Taking the "Hard" out of Hard to Reach Bonnie Watson, BPA

J. Morris thought about the historic issue of converting customers to Ductless Heat Pumps and how willingness to adopt new technologies starts with them.

Grist wondered if market data could reveal which categories of customers are picking up products. Watson stated that is still an issue. Cobb added that the RBSA reveals where products

are going but doesn't have enough sample size for true granularity. Cobb noted that NEEA has sales data by zip code and felt that it wouldn't take much effort to ask more survey questions.

Shani Taha, UCONS, LLC, noted that not everyone takes advantage of price drops in efficient technologies. She stated that customers on fixed income or have a lower income are both HTR and don't show up on market or building-to-building databases. She challenged the room not to forget these groups.

Frank agreed that lower income customers, which studies show are mostly non-white, non-English speaking and less educated, cannot buy more efficient products. She asked Watson about the meaningful comparison and course of action between today's products versus products from 10 years ago or a lateral comparison of all the products available today. Watson answered that people often confuse stock and flow. She said there's value in knowing what's installed today and how to make current choices efficient and affordable.

Frank countered that there's a danger of inaction when data shows that the worst product bought today is much better than the best product from 1987. She suggested that showing a delta in today's products would be more useful. Watson agreed.

Grist expressed great interest in the tools Frank used to determine the non-white, non-English speaking, less educated customer.

Hewett thanked Watson for her presentation, noting that initially product prices went up. He noted that there is still a market for used and low-end products along with a "limp-along market" where product is kept well past its useful life. Lazar pointed to PSE programs that presently address this issue. Watson stated that there is not one answer to this and work must be done at every level of the supply chain.

Bicker addressed the important difference between stock and flow, calling for a balance between upstream, mid-stream and downstream initiatives. He stressed the importance of inspection at the installation site as it impacts savings.

Rosolie hoped that data could help identify opportunities, and used reduced-wattage lamp replacement through distributors as an example. He then noted the complexity of the issue stating that the utility plays a small role in points like used appliances in rental units. He hoped the room would not try to solve every problem and focus on issues that would deliver the most bang for the buck.

Cobb addressed Hewett's point saying that manufactures bundle energy efficiency in their premium suite of goods.

Chuck Murry, WSED, observed the difference between lost opportunities and weatherization which is discretionary. Grist agreed that they need different methodologies and data sources.

Reaching all Energy Trust Customers

Shelly Carlton and Sue Fletcher, Energy Trust of Oregon

Bicker asked how ETO defined high-poverty, as the Census does not account for near poverty or low income. Adam Schick, ETO, offered to follow up but stated that the numbers did include multi-family.

Bobbi Wilhelm, Idaho Falls Power, noted that her research found similar findings: high-poverty, multi-family housing used a lot of energy per square foot.

Grist asked about the link between census data and program participation. Fletcher stated that ETO looked at all participants and compared the information to census tracks. Wilhelm noted that she paid the US Postal service \$125 to get the zip code plus four.

Rosolie asked how the geographic analysis took ETO's "service territory" into account as it overlaps with other utilities. Fletcher said all eligible customers were counted. Rosolie theorized that may play a role in higher electric savings.

Tracy asked for more information on the perceived barriers. Carlton noted that it's hard to ask more than a few open-ended questions in a phone survey so they asked broad questions about cost, time, lack of understanding and more. Tracy asked if "time" was installation time, awareness time or something else. Carlton said for most it was a mix but the small business group had a lack of time to figure out how ETO could help.

Ishbel Dickens, Association of Manufactured Home Owners--WA, noted her and Oregon's Association could be a great resource for focus groups. She noted that volunteers could help install products or spread ETO's message.

Frank noted the inconsistency of using household participation and energy savings as a way to measure equity. She stated she's also seen dollars spent as a unit of analysis. She asked what ETO is leaning towards in their initiative. Carlton said, for her, equity and inclusion starts at an individual level and noted that the data are not always available at that level. Schick stated that ETO looks across all three metrics, depending on the question they are trying to answer.

Grist asked about the companies that helped ETO get data. Carlton explained she used her media company along with CLEARResult. Fletcher noted that the customer's insight study is an old tool that they are reinvigorating with new questions and added demographics.

Grist asked if it would be helpful to harvest methodologies and data sources for others to reference and how we could facilitate the sharing. Fletcher stated that it would be very helpful to know what worked and what didn't.

LUNCH

Strategies for Profiling and Identifying Hard to Reach Markets **Bobbi Wilhelm, Idaho Falls Power**

Frank asked the group to consider if our planning process is creating Hard to Reach markets. She theorized that the “Hard” is a self-created construct borne out of the way programs were created and run. She asked the room to adopt the term “underserved” as it puts the onus on us and our level of service. Wilhelm agreed, noting four-plex houses are considered single-family by BPA and bill relief asks for identification.

Linda Esparza, Franklin PUD, stressed that consumers may be undocumented but they still pay our rates which includes energy efficiency which they may not be receiving.

Rosolie addressed other issues like CAP’s long waiting list which may run six years for some customers. Wilhelm noted that her CAP agency said they could move more quickly without the social security number requirement.

Bicker asked if Wilhelm looked at income qualifications based on census data. Wilhelm stated she asked that and was turned down which brought her to rental agreements. She noted that BPA programs must be run under BPA rules.

Bicker agreed that the census block is the grand prize and offered to collaborate. Wilhelm cautioned against creating income-segregated buildings.

Grist summarized that Wilhelm used census data, zip plus four, county assessor tax parcel data and billing data. He noted that the region has over 100 small utilities and asked if the BPA has a data collection and assimilation role here. Rosolie referenced the BPA Administrators recent letter calling for small rural customers and BPA to work on barriers.

Low Income Direct Install Pilot **Lars Henrikson, Seattle City Light**

Hewett commented that many low-income programs in Portland and around the country reached an 85% saturation rate by going block to block. Henrikson agreed.

Using a Research Synthesis to Identity Underserved Populations **Marti Frank, Evaluations + Strategy for Social Innovation**

Schick asked how to compare baselines comprised of data gathered with differently-worded survey questions, specifically he asked for the best way to word an ethnicity question. Frank stated that she would rather have data with caveats than no information at all. She noted that a lot of work and politics go into creating the census questions and suggested keying off of that.

Hewett asked about the implications of “Whole-house Retrofit: SCE, PG&E, SDG&E”. Frank referenced her blog post in ACEEE that addresses the three program design elements for diversity: buy-in cost, implementation and outreach methods and implementation approach.

Hewett referenced BayREN which gets 6% of utility money to reach HTR Markets. He noted that their program design will look different than utility programs but will tend to not be cost effective.

Grist asked if the northwest has the same volume of evaluation reports that can be harvested for data. Frank thought there would be data from the larger funders like NEEA, BPA and ETO, but not the smaller utilities.

BREAK

The Advantages & Limitations of Using Data to Identify Hard-to-Reach Markets Harvey Mathews, NEEA

Tracy asked where the sales data for the “program participation” bucket came from. Mathews listed different sources: retail lighting, retail product portfolio information, and NEEA initiatives. Rosolie pointed to the incomplete nature of county assessor data, but acknowledged that it can be improved. Wilhelm said that predictive analytics can help further.

Bicker asked about possible licensing issues with sharing third party information. Mathews admitted that there is a need to aggregate some before sharing. Tracy stated that Co-ops are prohibited from sharing membership lists or information.

Frank asked if any of these data sets was used to identify HTR Markets already. Mathews answered not yet as they are still very early in the process.

Grist referenced Tracy’s concern and asked if there was any way link billing data without running into limitations. Bicker noted that there are more, not less, public power issues and suggested non-disclosure agreements. Mathews noted models that allow researchers behind firewalls. Tracy called that wall sacrosanct and impenetrable. Grist stated that there’s nothing like the value of that data to break down walls.

Conclusion

Rosolie agreed with the benefits of sharing research but noted the difficulties in getting researchers together. Schick stated that he is almost done developing data and creating a product. He wondered if a presentation or web page is the best way to share it.

Tracy asked for a definition of an acceptable work product. Smit moved to the definition of deliverable [Slide 8] a report of HTR Markets with data. Tracy asked if the goal was to get 100%

of HTR Markets. Smit noted the different markets speculated in the Plan and called for data to confirm them and find others.

Hewett suggested starting with what we think we know, like multi-family, and then moving to small business or low-income.

Wilhelm offered a combined approach. She speculated that using the same data base and data tracking might be a reach but suggested starting with the same basic, non-binding protocols.

Grist followed up by asking about BPA data needed for Idaho Falls Power. Wilhelm said they gave her data that wasn't in a usable format. Grist suggested a potential work product could be helping facilitate coordination. Danielle Walker, BPA, noted that many programs don't collect specific, end-user data.

Bicker noted that getting to all the HTR customers may be cost prohibitive and 96% may be as good as we can get. Jessica Mitchell, Snohomish, noted that while there is value in getting every refrigerator a few watts better there is a bigger value in weatherization efforts. She agreed that asking what are HTR markets is a good, near-term project.

Lazar referenced studies that show 5% of utility investment nationally in efficiency produces something resembling all cost-effective savings. He said looking at national averages is important and noted the lack of discussion about stepping up the investment level.

Dickens encouraged looking at manufactured home owners as they cover the gamut of demographics. She referenced 20 years of weatherization data that is available.

Hewett suggested gathering a portfolio of best practice gathered from programs running in other North American cities.

Rosolie stated that people in the region are trying to address these issues, noting BPA's low income work group. Smit said part of the objective is getting data to show what work is needed and prioritize it. Rosolie asked if we're talking about markets and measures, i.e. low income and heat pump water heaters.

Grist answered yes, pointing to the need for data to inform us where to best put our lever and resources. Rosolie said he heard a call for people to create a list of HTR as a first step. Mitchel suggested compiling that data and digging one layer deep to move quickly.

Frank suggested asking for data on underserved populations around a handful of high-priority measures. She said this would be useful in developing best practices. She noted that participation and population data are the two most important things to look for.

Taha recalled Chapter 4 in the Plan which labels buckets: small/rural utilities, low income, moderate income and manufactured homes and suggested using them as a frame.

Tracy asked when this work is due. Smit answered the end of 2017, calling today a first step.

Juliette Homer, PNNL, suggested creating best practices for determining the proportions of participation by these segments. Grist suggested facilitating a platform where research findings and techniques are shared and reviewed.

Tina Jayaweera, NPCC, noted the lack of non-residential information and asked if anyone knows of any small business or industrial HTR Markets.

Smit asked utilities to send other HTR projects, and any data around them, to him so he can compile a list.

Homer suggested that good best practices can be gleaned from the day's presentation slides. Wilhelm suggested writing a white paper as a group.

Miller said that thinking about this issue measure by measures would help move quickly but voiced concern that this keeps the region in the same rut that created HTR Markets in the first place. He suggested thinking openly and perhaps starting with the customer.

Smit called for thoughts and suggestions to be sent to him and thanked the group for coming. He adjourned the meeting at 4:00.

Attendees on Site

Kevin Smit	NPCC
Tina Jayaweera	NPCC
Charlie Grist	NPCC
Eli Morris	PacifiCorp
John Morris	Morris Energy Consulting
Bonnie Watson	BPA
Danielle Walker	BPA
Bud Tracy	Consultant (Idaho)
Chuck Murray	WSEO
Wendy Gerlitz	NW Energy Coalition
Eugene Rosolie	NEEA
Jessica Mitchell	Snohomish PUD
Stephan Bicker	Tacoma Power
Juliet Homer	PNNL
Adam Schick	ETO
David Hewett	Blue Point Planning
Linda Esparza	Franklin PUD
Tim Miller	Enhabit
Marti Frank	Evaluation + Strategy
Ishbel Dickens	Association of Manufactured Home Owners (WA)

Shani Taha	UCONS, LLC
Jeff Tripp	PSE
Garrett Herndon	NPCC
Allison Mace	BPA
Jennifer Light	NPCC
Bobbie Wilhelm	Idaho Falls Power
Carrie Cobb	BPA
Harvey Matthews	NEEA
George Pohndorf	Snohomish PUD

Attendees via Webinar

Brian Dekiep	NPCC
Brendan O'Donnell	SCL
Dave Backen	Evergreen efficiency
Dave Warren	WAPUDA
Davide Nightingale	WA UTC
Elizabeth Osborne	NPCC - Washington
Summer Goodwin	BPA
Hossein Haeri	Cadmus
Jim Lazar	RAP
Kathy Moore	Umatilla Electric
Lars Henrikson	SCL
Lauren Gage	BPA
Megan Stratman	NRU-NW
Carrie Nelson	BPA
Cory Read	Idaho Power
Deborah Reynolds	WA UTC