

September 16, 2025 Meeting Minutes

Welcome, Agenda Review, and Meeting Minutes

Jennifer Light, RTF Chair, welcomed the RTF at 9:00am and asked for roll call. She counted 21 voting members in the room and on the Zoom webinar. Laney Ralph, NW Natural, moved to approve the minutes from the August meeting. Andrew Grant, Cadmus, seconded. The minutes were adopted unanimously.

Eric Miller, independent, moved to adopt the day's agenda. Rick Knori, Lower Valley Electric, seconded. The agenda was adopted unanimously.

Management Update

Laura Thomas, RTF Manager Presentation

Staff presented updates. A corresponding member voiced appreciation for early meeting materials.

David Tripamer, BPA, said he appreciated seeing meeting materials early as it makes it easier to prepare for the meeting.

Light: Thanks. We try to have materials ready a week early, but it can be tough.

Update Planning UESs: Door Sweeps

Logan Douglass, RTF Contract Analyst (CAT) Presentation

Staff presented the proposed updates. The RTF discussed possible reasons why manufactured homes had higher leakage and measuring the door gap versus the desire to keep the measure simple before voting to approve the measure updates.

Grant asked that staff avoid putting a link to an external file in workbooks in the future [Slide 9]

- Logan Douglass, RTF CAT: I tried to link to the SEEM workbooks on Box for convenience. I can try to undo that.
- Light: We'll look into that. We try to keep any linked files in the folder with the workbook.

Miller asked why manufactured homes have higher leakage?

- Christian Douglass, RTF Vice Chair: My guess is it's as a result of what's in the RBSA.
- David Baylon, independent: Really? Historically, Manufactured Home blower door testing shows less leakage than Single Family. This suggests that there is a huge gap in the door. That seems unlikely.

C. Douglass: Maybe it's the calibration?

Adam Hadley, RTF CAT, said the real question is why the Manufactured Home savings are higher, not why the leakage is higher. He admitted that staff do not know, adding that this is what SEEM tells us. Hadley said the complicated mix of home types, physics of being modeled, and more could be the answer.

Baylon asked if staff look at all Manufactured Homes from the RBSA or just a subset.

- Josh Rushton, RTF CAT: All homes.
- Baylon: More modern Manufactured Homes drove down ventilation rates dramatically (in the 90's). These results are probably OK for older homes.
- Nick O'Neil, Energy 350: We used the same RBSA dataset for this analysis. There are probably many old homes.

Tripamer asked if staff used different applications for direct install, retail, and more [Slide 11].

- L. Douglass: There are not separate applications for delivery.
- Tripamer: For direct install why not bring a ruler and have separate applications for different gap sizes?
- C. Douglass: I agree. But run that by your program folks. We get a lot of pushback from programs. They tell us it's harder to collect this information.
- Tripamer: You can have a default (1/4") or a measured gap path.
- Light: Your program would have to choose one path or the other. I'll put this in the parking lot.

Thomas explained that staff will eventually transition this to REEDR. She explained that staff limited their time on this based on feedback from RTF members.

- Baylon: It would help if REEDR has the same or equivalent infiltration model. It doesn't. We've had this measure for four years. Has there been any effort to evaluate this?
- L. Douglass: Not that I'm aware of.
- Baylon: We're flying blind here. There's been no effort to evaluate this measure? Even in combination with other measures?
- Tripamer: I'm the evaluation lead at BPA. It would be almost impossible to evaluate this individually. The savings are too small. It could be part of a discussion of weatherization and air sealing maybe.
- O'Neil: There is a research strategy that goes along with this measure.

Kyle Chase, Jefferson PUD, addressed adding post installation verification saying the work looks like a diverging measure with two different options [Slide 21]. He said this is actually a simple measure and it would be nice to keep it simple. He supported an option to capture all of the data but stated that it would be hard for a little utility like his to collect it all.

• Light: We have no idea what the install rate is. In the past we've tried to pick a rate from a single data point that we have for some program somewhere in the region. We know it won't reflect everyone.

- Michael Hoch, Energy Trust of Oregon: We agree with Chase. Keep this simple. It's a Small Saver and divergence will complicate our ability to deliver this.
- Light: Note that this is not a Small Saver.
- C. Douglass: Verification can be done on a sample. And it could be a picture. It doesn't have to be complicated. That install rate can be applied to the whole program.

Ralph asked about mechanical installs, explaining that she has stick and peel equipment in their program, but doesn't claim savings. Ralph asked if mechanical installs damage the door and become an issue with renters.

Thomas: With peal and stick the concern was that it wouldn't last five years, especially if
it was mailed out in a roll and then needed to be flattened. We didn't consider the renter
issue.

Baylon asked if this is standard practice in residential weatherization and if so, why the RTF has a separate measure.

- Light: I don't think it matters if it's separate versus part of a weatherization measure.
- Baylon: It matters because it never gets evaluated on its own.
- Chase: We can't double count savings from air sealing based on blower door evals.
- Baylon: But would you include this measure in the air sealing?
- Chase: Yes, using air sealing should preclude use of this UES.
- Baylon: It's unlikely that the savings are always above zero. I don't see how we get to 11.7 aMW. Door sweeps are already in the weatherization specs. And this needs to be evaluated separately, which means it doesn't happen.
- Light: It could be evaluated along with a weatherization program.

Baylon said he was thinking of an amendment to the proposed motion.

- C. Douglass: You're suggesting that we have a "weatherize a home" measure. That would be a big shift.
- Light: That's also not today's question.

Hadley called attention to the research recommendation of "get the door gap" and not "measure/evaluation consumption." He said it's not up to the RTF if a utility wants to run a simple door sweeps program. Hadley said our job is not to force blower door tests on all projects.

- Baylon: Our assumptions in the models are complex. That's OK. The modeling can't tell
 us the impact of a very small difference in infiltration, though. Do we want to carry
 around 11aMW that do not exist?
- Hadley: This is exactly what we use models for: tiny things we can't measure.
- Tripamer: I think the delivery verification plan is not a great idea. You have the research plan, and you say you don't need to call out installation rate, but you could.
- Light: Programs can send these out to everyone and get bad install rate, or an awesome rate, and that rate applies to everyone in the region. We want to avoid this. Getting the right install rate for each program is a tradeoff.

- Tripamer: The tradeoff is that this measure doesn't exist because it's too arduous to verify.
- Light: You have to verify installations for every measure.

Grant noted that SEEM does electric runs and converts them to gas savings. He found a possible mistake in the workbook, as a gas furnace assumes a lot more energy consumption, saying it's about two times higher.

 Rushton: That's probably not a mistake. It's typically what we see. Gas homes use more heating.

MOTION

I, Mark Jerome, move that the RTF approve the Door Sweeps UES as presented, and: Keep the status as Active, Keep the category at Planning, Update Research Strategy, Set the sunset date to 9/30/2028.

Chase seconded.

Baylon said amending this motion would be a waste of his time.

Vote on the motion. The motion carries. (24 yes, 1 no, 0 abstain)

Update Planning UES: Residential Gas Fireplaces Denis Livchak, RTF CAT <u>Presentation</u>

After discussing HVAC interactions, the prevenance of intermittent pilot lights, and treating the devices as an appliance versus a heating system, the RTF moved to deactivate the measure.

Noe Contreras, NEEA, asked about data that shows that heating units and decorative units are in the same competition group [Slide 4].

• Denis Livchak, RTF CAT: We'll get into this later in the presentation.

Baylon stated that a decorative fireplace has no temperature control [Slide 9]. He said that's not a part of the discussion of the effectiveness of the heater. Baylon called it rare for a decorative unit to exceed 70% efficiency wondering why that was the case here.

- Livchak: Our baseline is based on Energy Trust of Oregon sales data. It's a mix of decorative and heating.
- Baylon: So, what? Just because there's a decorative fireplace replaced with heating one
 doesn't mean we need a decorative option. It doesn't have a thermostat.
- Livchak: Are you asking if decorative equipment should be included in the spec or in the baseline?
- Baylon: The spec.
- Light: Let's put this in the parking lot. That CAT poked at this a lot. We'll circle back to it.
- Livchak: There are only four decorative fireplaces in the database that would qualify.

Contreras stated that the existence of a thermostat might not be a good definition for heating type application, saying you can control decorative fireplaces too.

- Livchak: Agreed. We didn't think having thermostat would dramatically alter usage.
- David Bopp, RTF CAT: It's very muddy because you could use either type for either application: heating versus decorative.

Baylon noted that the 69% on [Slide 16] is effectively an observed baseline with some above, some below. He asked if the RTF is arguing that savings should be relative to this because of current practice rules.

- Livchak: Yes. New construction efficiency didn't change much.
- Light: Baylon is just poking at current practice.

Baylon stated that 75% efficient fireplaces don't really look like what is presented on [Slide 18].

Bob Davis, Ecotope, stated that his organization did the field work for Energy Trust on run times for this [Slide 19]. He said the big divide was the presence of a pilot light versus no pilot light. He was not sure what the distinction between 71% and 76% is saying there are a lot more base case fireplaces with intermittent pilots now.

- Livchak: Here we assume the base case has intermittent pilots. The industry has moved to this technology. In WA, an intermittent pilot is required. It would be difficult to meet 50% efficiency with a standing pilot.
- Davis: Wow. I'm even more skeptical of these efficiency divisions now.
- Bopp: In Canada, an intermittent pilot is required. That drives a lot of what manufacturers are doing.

Grant voiced surprised that the decorative impact on gas furnaces was negligible. He said that savings are of the same magnitude as the difference between a fireplace and furnace. Grant added that the fireplace might not be in same room/zone as furnace, meaning that the furnace might run regardless of a fireplace.

Livchak: Noted. We address this in the research strategy.

Lisa Garland, ODOE, asked what the baseline is. She said she thought it would be precondition, but it sounds like it's the worst thing possibly installed today versus the best. Garland related that her fireplace doesn't even have a flue damper, and she would get a lot of savings from the damper install.

- Livchak: Here we're assuming you'd buy a fireplace anyway, and you could be efficient or not.
- Light: That makes this a current practice measure.

Jim White, Chelan County PUD, stated that he doesn't have a lot of faith in these devices adding that his brother has one. He said you have to sit right next to it to get heat from this device.

Contreras said he looked at some of the savings mechanisms but didn't see any data to tell me which features are being used in the market to achieve efficiency.

- Livchak: Manufacturers don't provide a lot of information on this. The DOE analysis only considered pilot lights, but these are more or less standard.
- Davis: This is starting to feel like through-wall packaged heat pumps. It sounds like there's maybe something there, but maybe there isn't. No one is willing to do any measurement. If all of these devices have an intermittent pilot, there may not be differences in efficiencies.
- Kevin Geraghty, independent: Has anyone consider a measure of installing a gas
 furnace in the center of a living space? Inefficiency is inherent in this measure, you need
 a yellow flame to mimic fireplace, which is less efficient. So, this is wasting energy more
 efficiently? This is a silly measure.

Grant understood that aesthetics is a huge source of costs here and hard to tease out [Slide 23]. He insisted that there should be something driving the cost of efficiency. Grant was not sure this passes the sniff test.

• Livchak: We see the highest cost for fireplaces under 50% efficient in the program data. The average cost for efficient ones was lower than the overall average.

Kenji Spielman, Energy Trust of Oregon, addressed cost saying his organization wrestled with this a while back. He shared that there is a lot more driving costs, and Energy Trust couldn't pull any specific driver out. Speilman pointed to an important pieces: attribution or why we think incenting a fireplace that's less efficient than an average fireplace is going to be effective. Speilman said research showed that efficiency was not at the top of the list for purchase decisions as it was more about size, ease of installation, and looks.

Spielman struggled with how much this would impact people's choices, asking if the RTF should be claiming savings with so many free-ridership concerns.

 Bopp: We don't know the counterfactual. Would they have bought a bigger or smaller unit? Maybe. To Spielman's question of are we moving people to buy more efficient equipment? I don't know.

Baylon recalled an RBSA that found that the most common installation of gas fireplaces was in homes with electric resistance baseboards [Slide 26]. He said if there is an HVAC interaction, it would be electric. Baylon stated that this work says we're going to put these in a gas heated house and offset the furnace. He said this may be true if you're letting the rest of the house cool off. Baylon said the problem of "what base heating system you're offsetting" is important.

- Livchak: I agree. We only looked at gas furnaces in our sensitivity analysis, but the research strategy does capture HVAC type.
- Baylon: I'm concerned that you're offsetting electric heat with this device. That's different than offsetting gas furnace use.
- Livchak: We haven't considered this.
- Baylon: It's very common in the RBSA.
- Rushton: We assume the heat output is the same in the base case and the efficient case. HVAC interaction shouldn't be an issue. In decorative mode, yes this could be

- offsetting electric heat. We assume you get same heat out. The savings are just based on the difference in efficiency.
- Livchak: We assume the same heat output in the base and efficient case. There shouldn't be an HVAC difference.

Spielman asked if anyone is considering doing research on this as Energy Trust is not planning to research these further. He said that NEEA worked hard on this and eventually washed their hands of it. He didn't know that anyone would spend time, energy, or money on this.

- Davis: The chances of research are infinitesimally small. No one will pay to do research
 of this sort.
- Contreras: What about dual fuel heating homes? I think of heat pumps. If a home uses a central thermostat, there could be interactions. How does this product interact with other HVAC systems?

Parking Lot [Slide 28]

Light began going through parking lot issues asking if there is "any there there."

- O'Neil: I'm struggling with this one. If no one is going to research, why kick the can down
 the road three more years? The savings methodology makes sense, but I have trouble
 moving this forward.
- C. Douglass addressed people doubting that this research will get done. He agreed that may be true with gas metering but wondered about a simple survey. C. Douglass asked if existing surveys already asked this saying this could be a way to address some of the big issues.
 - Jerome: Are you suggesting a revision of the research strategy?
 - C. Douglass: Not necessarily. I'm asking if we are really saying we can't do anything here or if gas metering is the issue.
 - Davis: Ten years ago, we measured the open time of the gas valve. It was complicated. We didn't look at the thermal output or any proxy for combustion efficiency, or interaction effects with the existing system. It was meaningful to me that standing pilots were an opportunity. But not anymore now that all units have intermittent ignition. I'm struggling to see how we'd be any closer to understanding or getting actual savings, even if we had run times. I will vote no on this if the motion were to come up.
 - White: This is a performance spec, like ENERGY STAR. For example, should it have a blower. I don't see that in the spec. I compliment the work done, but it feels too loosey goosey to be a measure.
 - Baylon: I agree with White. This is like an appliance. We don't expect much heat out of
 this. The operation could be independent of outdoor air temperature. I'm mystified about
 what we're doing. We're doing a straight-ahead efficiency analysis and call it good? It's
 like a washing machine but a washing machine has much more rigorous testing
 requirements.

BREAK

Parking Lot (Continued)

Jerome said that while he does think there's something here, he didn't want to make this
motion. He said it may be a measure to replace a fireplace with a standing pilot but as it
stands this measure isn't right.

Grant addressed the baseline saying the RTF already assumes there is a decorative fireplace pre/post and asked why not consider HVAC interaction. He thought that assuming the same hours of use for a fireplace and a furnace doesn't make sense.

• Livchak: These hours are gas HVAC displaced by a fireplace. Not all HVAC hours.

Light said she is not getting the sense that there's a measure here.

- Miller: If no one wants to make this motion at this point, can we move on?
- Light: The measure sunsets this month. We need to approve, deactivate, or something in between. Anyone can make a motion.

MOTION

I, Dave Baylon, move that the RTF deactivate the Residential Gas Fireplaces UES measure Miller seconded.

C. Douglass said he understood the motion but cautioned that the savings are big. He asked if these are real savings.

Bopp: The NRCan testing procedure provides the metric, so efficiency is being tested.
 We don't always know what's driving the efficiency. These are an appliance. Are they getting more heat out in the efficient case? If someone is going to put one in, they can save energy.

Hadley asked what it means for the RTF to deactivate. He posed that it means that the RTF doesn't believe the efficiency numbers, which he called premature. Hadley then asked what part of the test procedure is hard to believe, saying this feels like test procedure question. Hadley concluded by saying he didn't think the RTF is there yet.

- Ralph: Hadley summarized this well. There's probably a lot of potential but lots of
 questions, like offsetting HVAC, too. We're not likely to research that but maybe a
 research strategy could survey to get some of this.
- O'Neil: I have no issue with the test procedure. But the market side of this is unknown. The savings are really dependent on a market questions that no one will go answer. I'd vote to deactivate this.

Brown saw some similarities to the door sweep measure when considering deactivation. He asked if we just have a lot of uncertainty, but we know there's savings, or are we skeptical that there are any savings. Brown called these two different concerns: large uncertainty versus questioning if there are savings at all. He asked about the initial motivation for this measure.

- Bopp: It was a COVID-era new measure proposal.
- Light: This showed up in programs when we added gas to RTF.
- Bopp: And there's a lot of field data that made it possible.
- Light: To Jerome's point, maybe there's a different measure here.

Baylon noted that the RTF is taking it up as a heating measure and not as an appliance. He said the product barely meets our requirements and it's not more efficient than the furnace. Baylon then said if you're going to use the fireplace regardless, you'd use less gas.

Grant asked what happens if the RTF deactivate this, wondering what it takes to pick it back up. He was surprised the RTF has not brought back showerheads and aerators.

- Light: The door isn't closed, but we'd want to consider an improved spec.
- Bopp: For a retrofit measure, we'd need to verify that an existing fireplace was functional.

Contreras asked if there are other options besides Deactivate.

- Light: Yes, maybe not Under Review, but Planning makes sense.
- Contreras: Is it possible the utilities that intend to do research aren't on the call today?
- Light: If we deactivate and then receive research, that could be reason to reactivate.

Vote on the motion. The motion carries. (15 yes, 9 no, 2 abstain)

Light called on programs interested in research, or a different spec, to bring it back to Laura Thomas. She also said the RTF will skip the Secondary Glazing Systems item today due to the time.

Update Planning UES: Residentail Electronic Line Voltage Themostats Adam Hadley, RTF CAT <u>Presentation</u>

Staff presented a recommendation to deactivate this measure due to the savings mechanism still being unproven. The RTF discussed that a few energy efficiency programs have recently compelted thousands of installs and Bonneville is likely to evaluate these programs in the next few years. The RTF utimately decided to set the savings to zero and extend the measure sunset date by three years to allow time for the region to complete evaluations to demonstrate savings and the savings mechanism.

Kelsven stated that Clark County PUD did over one thousand of these in 2021-22 [Slide 13]. He admitted that BPA never did an evaluation but would be likely to in the future and this would be a recent example. Kelsven called this a single product, direct install program and there is a plan to do an impact evaluation.

- Tripamer: It's a priority. A lot of utilities are using this measure. What was the characterization of results being statistically insignificant. Is it the P-value or something else?
- Hadley: The study said that.
- Rushton: See [Slide 13], the confidence intervals are very high.
- Tripamer: That's at 95% confidence. That's pretty high.
- Rushton: It's still a large uncertainty band at lower confidence.
- Hadley: Read the study. It's very thoughtful.
- Tripamer: It makes more sense that the low income group had higher savings. They'd be more sensitive to energy costs.
- Hadley: Billing analysis that looks for a small signal, with a small sample size, is not promising.

Grant asked if the studies looked at room type and what's being replaced [Slide 16]. He said that there could be different behavior in a living room versus a bedroom.

• Hadley: I'm not aware. Most studies focus on retrofitting the whole house.

Kelsven referenced a presentation where Seattle City Light has done about 6000 of the communicating variety in the past few years. He said there is a lot of opportunity for impact evaluation there and this measure has a lot of potential in Multifamily. Kelsven added that they are over 90% electric zonal in the region. He called this a simple measure for Multifamily and there are opportunities for more evaluation.

- Tripamer: I reviewed the EWEB study. The income qualified group always had significant results. It makes sense if this is driven by behavior, people that are more price sensitive could be using this to save energy.
- Chase: Those were primarily DR-centered programs. This is different. Puget Sound Energy did this too.
- Baylon: 6,000 installs sounds like a big enough sample to get somewhere. Do we hold this measure open until we get the evaluation? Will the evaluation even occur?
 Historically, it's a crap shoot. I'm particularly interested in Multifamily. Their heating usage is very variable, with more on/off control by users.

Light stated that the proposed motion calls to deactivate [Slide 18]. She said there are other options, like extending the sunset date.

- C. Douglass: Part of the issue is that the world has changed and devices are different. But you're saying that even if it hadn't changed, our savings theory is still flawed. A behavior issue could be that a new thermostat setting results in the same average tempurature, or higher tempurature.
- Hadley: That's right.

Brown asked if this measure is on the books as an EE measure, means we can look at the DR potential for communicating thermostats.

• Light: For DR, we have to understand the technology on the EE side. I don't think we have to be as strict about what we consider for DR as we have been in the past.

MOTION

I, Jamie Anthony, move that the RTF extend the sunset date to September 30th, 2028 to allow time for review of the Bonneville evaluation.

Jerome seconded.

- C. Douglass asked what evaluations are planned.
 - Kelsven: For Clark PUD we're looking at non-communicating thermostats. Seattle City Light thermostats are communicating technology. We'd cover the evaluation for both in the next year or so.
 - Grant: Let's see [Slides 23-24] if we're going to extend the measure, we should know what we're approving.
 - Hadley: (presented more slides for clarity)
 - Jesse Durst, Puget Sound Electric: PSE may also have another evaluation completed in 2028. We'd be interested in RTF guidance on it.
 - Jerome: Should we move this to Under Review?
 - Light: That would be a friendly amendment.
 - Grant: Could we change the labor rates?

• Light: Not yet.

Friendly Amendment

Change status to Under Review

Friendly Amendment

Update the labor rate from the SIW.

Ryan Firestone, RTF CAT, argued that if the RTF doesn't think there are savings, they should update that, and not just extend the sunset date.

- Light: I agree. If we think zero is the right number, we should change that. We could extend for just a few months if that's case.
- C. Douglass: This is tough. I don't even know what the savings mechanism is. We've had the measure with a theory of a savings mechanism. The evaluations are negative or inconclusive on savings.
- Light: I recommend that we let the CAT come back in a few months with updated savings if we want to keep the measure around. Sitting on these current savings for three years doesn't seem right.

Davis summerized that there are two things going on: An opportunity to look at more recent evaluations and a three-year sunset that seems really long.

Kelsven: New data is on its way. The CAT doesn't have a lot to stand on to deactivate.
 We can do the research. It doesn't take three years. It's fine to sit on these savings.
 There's no new data to go on but maybe we could go shorter.

Anthony said he's open to friendly amendment to change the sunset duration. He also argued that the RTF is contesting the zero kWh claim with these evaluations.

Paul Sklar, RTF CAT asked if Under Review programs can still claim savings.

- Light: Under Review only means that the RTF has questions about data in the workbook and we know data is coming.
- Kelsven: There was no subcommittee on this. We could have avoided some of this discussion with a subcommittee and there should be one in the future. Getting input from programs would have been helpful.
- Baylon: I think the case for zero savings has been well constructed. Having the CAT
 review that is within their expertise. That said, setting savings to zero is consistent with
 what we know. And the sunset date obligates us to do this. But maybe new evaluations
 could show something different maybe for a different group of people. It would be wrong
 not to set the savings to zero.

AMENDMENT

Baylon proposed setting savings to zero. Chase seconded.

Grant asked if the RTF could do this with all measures and never deactivate anything, wondering if this a precedent we don't want to set.

- Bopp: We are proposing something similar for another measure today.
- Brown: The baseline is largely uncertain in the more recent studies of the last decade. And that was inconclusive with no saving. Although it might not be informing the bimetal versus line-voltage baseline question.

Anthony asked what the difference is between deactivating and setting savings to zero.

- Light: Deactivate means the RTF no longer stands behind the analysis and we're not going to look at it again. Setting the savings to zero commits the RTF to look at it again, but we currently think the savings are zero.
- Anthony: And you could claim zero savings? How does that feel different than deactivate?
- Light: This way the RTF is committed to spend resources going forward.

Vote on amendment. The amendment passes. (14 yes, 8 no, 3 abstain)

Amended motion reads as:

Extend the sunset date to September 30th, 2028 to allow time for review of the upcoming Bonneville evaluations, set measure status to Under Review, update labor rates to align with the current SIW, set savings to zero.

Vote on the motion. The motion carries. (17 yes, 5 no, 2 abstain)

LUNCH

Update Planning, Proven UES: Connected Thermostats David Bopp, RTF CAT, <u>Presentation</u>

Staff presented proposed updates to the measure and indidicated concerns around the savings mechanism and an need for research, pilots or evaluations to verify the savings mechanism from newer products. Discussion centered around electric resistance optimization, the advantage of setting savings to zero and recategorizing the heating zones of recent evaluations. The RTF approved the measure updates with adjustments to the savings for heating zone two and set the sunset date to one year to allow time for the region to begin research.

Bopp started the presentation with a series of terrible puns about his broken arm.

- There was much wailing, rending of garments, and gnashing of teeth.
- C. Douglass confirmed that right after installation the savings were high before dropping off [Slide 17].
 - Bopp: Yes.
 - C. Douglass: I have theories on this based on my personal experience.
 - Chase: This sounds a lot like a behavioral measure, where savings are initially high and then drop off.

Anthony addressed electrical resistance optimization, asking what ENERGY STAR is trying to do [Slide 19].

 Bopp: ENERGY STAR stopped working on this. They were working on getting feedback from the industry.

White asked why multifamily savings were different than single family.

- Bopp: We'll get to that.
- Baylon: I recall in the basic thermostats in the 2010-15, there was a consistent, but deep, set of program settings that you could use to minimize electric resistance. It was

- not part of the standard setup but was available. In some cases, it was setup by installers but probably not many. These were the kind of thing you'd want to see in commissioning a heat pump, and here the thermostat takes care of it for you.
- Bopp: BPA does have an awesome resource on how to set up a thermostat for electric resistance optimization, but it's not required by the program.
- Bruce Manclark, Earth Advantage: There are settings that do a good job of locking out electric resistance. Energy Trust did a pilot on this, but they're not being implemented.
- Light: More on this coming in the presentation.

Christopher Dymond, NEEA, asked if the thermostat spec includes other savings mechanisms like a modulating variable speed heat pump or secondary fuel usage.

- Bopp: At this point, the scope is any connected thermostat could include the things you've mentioned...or not. Our savings are based on regional pilots and evaluations, which could—or could not—include these other pieces.
- Dymond: We have to decide if we want to toss the baby out with the bathwater. There could be savings, but there's no clearly defined spec.
- Bopp: We agree.

Anthony asked if staff provides further detail in the spec when they say "electric resistance optimization" [Slide 24].

- Bopp: No. The spec just calls for resistance optimization.
- Baylon: Electric resistance optimization devices are unsuited for variable speed heat pumps. As for cutting savings in half, why?
- Bopp: I don't recall, but for retail we're assuming that's what you get when you install this yourself.
- Light to Bopp: Can you summarize what we're proposing and go through the material?
- Bopp: We want to deactivate centrally ducted heat pump electric resistance optimization and consider them along with heat pump measures later this year or next year [Slide 33].

Jerome asked why staff is proposing deactivating versus going to zero savings [Slide 25], wondering why we should handle parts of measure differently.

- Bopp: We think centrally ducted heat pumps should be considered along with the other heat pumps. And we heard interest in the measure.
- Jerome: And what is the impact of us doing the proposed approach and deactivation and zero savings on the region.
- Light: No one reacts that quickly.

Jerome reiterated that there are people and programs that believe deactivation of pilot saving measures causes issues [Slide 34].

Light asked when staff is bringing back the air source heat pump work.

- Thomas: By February. We're planning a subcommittee meeting now.
- Bopp: I can't guarantee that we can add a measure for this to the centrally ducted heat pump measures. But that would be the right place for it.

- Thomas: Savings for centrally ducted heat pumps would look very different than other connected thermostat applications. I think it makes sense to handle it separately.
- Jerome: Bopp brought up all of the things that I've thought about on this topic. Well done! You've brought your A game. I couldn't have done this well.

C. Douglass called this pretty startling, pointing out that it is from multiple evaluations. He stated that guarantees evaluators are going to dig deeply before they put out a 0% realization rate.

Grant addressed variable base degree day calculations, asking where they came from and what the methodology is for the RBSA data analysis. He asked if staff would get to electric furnaces later in the presentation.

- · Bopp: Yes.
- Baylon: This isn't new. You're bringing it to the table in a way that's hard to ignore and
 that's admirable. You may be able to succeed. We've known this about heat pumps for
 at least 30 years. The evaluations always come back like this. It took lots of work to
 figure out why this was 20 years ago. We have to bring this to the table with that in mind:
 what's available on the devices and how we can make it work in the real world.

Baylon asked in what planet is Avista not in heating zone 2 [Slide 42] adding that Spokane is zone 2.

- Bopp: Intermountain provided groups by HDD, which fit into our HZ1. And Avista is on the edge of HZ1
- Baylon: No, it's zone 2.
- Grant: I agree with Baylon. In the RTF climate zone calculation version 3.2, Avista ID and WA are HZ2. I think you used the old methodology. Also, why do we associate 2024 with COVID?
- Bopp: Noted on climate zone. And yes, we could strike COVID from the 2024 evaluation as an issue.

Grant stated that evaluated savings average 25 therms and we calculate 15 therms based on a percentage of RBSA heating loads [Slide 47]. He called it suspect that HZ1 is so consistent with 2 and 3. Grant thought it might be an artifact of the RBSA. He noted that there is a new RBSA out wondering if this trend is alive in the new data. Grant then asked why we the staff estimate is 15 therms while evaluations say 25.

- Bopp: I used a sample-weighted average.
- Grant: OK. And again, it would be great to have explanation of why HZ 2/3 loads are similar to HZ1.
- Baylon: I think Avista and Intermountain give us HZ2 savings. Zone 2 looks like double zone 1 savings. Who knows with zone 3.
- Bopp: You could propose that. We still have concerns about savings mechanisms and current thermostats. That's why we're proposing a one-year sunset.
- Chase: Maybe there's more snapback in the colder zone which lead to less savings.

Jerome thought that incremental cost for an electric forced air furnace could be high because of the need to add a third wire [Slide 50]. He thought the lack of data may be because it doesn't happen much as it cost more to put these in.

C. Douglass noted that the y-axis should be kWh. He felt cautious because a gas furnace has a high supply air temperature which allow setbacks to work there. C. Douglass stated that an electric forced air furnace has a lower supply temperature, so savings are cut in half. He was okay with this point.

- O'Neil: Are you using the 5% or 3% for gas?
- Bopp: I'm proposing 3% for gas and 1.5% for electric forced air furnaces.

Grant thought the RTF could set period one to five years and 0 for two more years in ProCost [Slide 63].

• Firestone: That would be complicated to capture in ProCost. But setting five-year savings with cost repeating could work.

Contreras thought having a thermostat controlling gas furnace, electric forced air furnace, or centrally ducted heat pumps makes sense. He thought that for dual fuel the thermostat could be more valuable for switch-over temperature.

- Light: The RTF has more work to do on dual fuel. We need to figure out what part of that is conservation versus fuel switching.
- Thomas: It would make sense to consider that application with dual fuel heat pumps.

Jerome asked if there is a way to avoid deactivation until the new measure happens in February, saying that would be his preference [Slide 64].

- Bopp: I can't find anyone running it. So, I don't think it would be a problem. Some utilities
 were called out by regulators for claiming this but not actually doing the electric
 resistance optimization piece.
- Jerome: OK.

Baylon said the RTF could set the savings to zero.

- Light: There's a distinction here: direct install with electric resistance optimization versus direct install without electric resistance optimization. These are two different measure identifiers. The one with electric resistance optimization needs work, so we'd move that to our heat pump measure.
- Baylon: So, we might decide the resistance optimization is useful. How do we handle this?
- Thomas: No one is using it. It's ok to deactivate it. We'd like to bring it back with centrally ducted heat pumps next year.

Jerome added that thermostats are more about DR than energy savings even though there could be some energy savings. He wondered if it would be a problem if we take this off the books and someone implements the measure to use for EE and DR. Jerome thought that

programs can still do electric resistance optimization with DR if they want so he didn't have an issue with deactivation for now.

Light: And we will be dealing with the DR part.

Baylon believed that there is zone 2 savings from Avista and Intermountain.

 Bopp: We could use the two most recent evaluations as zone 2 savings and the other three evaluations as the Zone 1 savings.

MOTION

I, Nick O'Neil, move that the RTF approve the Connected Thermostat UES as presented, and: take the average of the Intermountain and Avista Evaluations and set as HZ2 eFAF savings and the remaining three evaluations for HZI. Deactivate the CDHP direct install with resistance optimization applications, Set savings for CDHP retail and direct install without resistance optimization applications to zero, Change the Category to Planning for the SF/MH, gas-heated homes, HZ 1, retail and direct install applications, Keep the category at Planning for all other remaining Active applications, Change the status to Active, Set the sunset date to September 30, 2026.

Jerome seconded.

Grant asked if this would result in the same for heating zone 1 and 6.5% for heating zone 2.

- Bopp: We'd provide a management update when we make the changes.
- Grant: And what about the electric forced air furnace?
- Bopp: We'd follow that change.

Vote on the motion. The motion carries. (23 yes, 0 no, 1 abstain)

BREAK

Proposed Final 2026 RTF Work Plan Laura Thomas, RTF Manager, Presentation

Staff presented the materials. Discussion centered on how DR work would flow through the RTF. The RTF approved the work plan.

Grant asked what "flexible measure type" means [Slide 7].

- Thomas: Those are measures that provide both EE and DR that we want to consider together.
- Grant: Got it.
- Thomas: And "DR" means DR only, not EE.
- Grant: And when does updating to 9th Plan happen? And what about RBSA 3? When does that get incorporated?
- Thomas: It gets incorporated when the new Plan is finalized and released. We're currently working on updating to RBSA 3.
- Light: But remember, even after the Plan is finalized and updated, it takes some time to filter through to RTF work product. We're aiming for finalization of the Plan in November 2026 which suggests this would be 2027 work for the RTF.

Baylon spoke about DR analysis, saying he thought there are measures out there that will give us DR but insisted that is probably wrong [Slide 10]. He suggested possibly modifying measures to get DR, ultimately doubting DR measures will come out of the sky at us, as it is described.

- Light: That's not accurate. You'll see next month.
- Baylon: So, this will be the process of reviewing our current measure base for DR potential?
- Thomas: The RTF has five approved DR measures on the books that haven't been updated since 2019.
- Baylon: Almost everything we have has this potential for DR.
- Light: No, that's not right. This work plan calls out both flexible measures and DR measures going forward. It's in the work plan. We'll discuss that next month.

Grant asked if the RTF is considering gas DR.

- Thomas: Not currently. There's no funding for this.
- Grant: And are we looking at summer and winter for DR potential?
- Thomas: We'll discuss this more next month.

MOTION

I, Greg Brown, move that the RTF adopt the proposed 2026 work plan and business plan, with recommendation to the Council for approval.

Hoch seconded

Vote on the motion. The motion carries [20 yes, 0 no, 0 abstain]

Light ended the meeting at 3:10pm.

Voting Record: September 16, 2025

					Percent of Yea Votes		Number
Motion Language	Yea	Nea	Abs	Motion Passes?	RTF Voting Members (40% min)	Members Voting (60% min)	of Voting Members Present
Motion : Approve the minutes from the August 19, 2025 RTF meeting. (Ralph/Grant)	21	0	0	Yes	72%	100%	21
Motion: Approve the agenda for the September 16, 2025 RTF meeting. (Miller/Knori)	21	0	0	Yes	72%	100%	21
Motion: Approve the Door Sweeps UES as presented, and: • Keep the Status as Active • Keep the Category at Planning	24	1	0	Yes	83%	96%	25

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Update Research Strategy Set the sunset date to 9/30/2028 (Jerome/Chase)							
Motion: Deactivate the Residential Gas Fireplaces UES measure. (Baylon/Miller)	15	8	3	Yes	52%	65%	26
Motion: Extend the sunset date to September 30, 2028 to allow time for review of the upcoming Bonneville evaluation, set measure status to Under Review, update labor rates to align with the current SIW, set savings to zero. (Anthony/Jerome)	17	5	2	Yes	59%	77%	24
Amendment: Amendment: Set savings to zero (Baylon/Chase)	14	8	3	Yes	48%	64%	25
Motion: Approve the Connected Thermostat UES as presented, and: • Take the average of the Intermountain and Avista Evaluations and set as HZ2 gFAF savings and the remaining three evaluations for HZ 1. -Deactivate the CDHP direct install with resistance optimization applications -Set the savings for CDHP retail and direct install without electric resistance optimization applications to zero. -Change the Category to Planning for the SF/MH, Gas-heated homes, HZ 1, retail & direct install applications • Keep the category at Planning for all other Active applications • Change the Status to Active • Set the sunset date to September 30, 2026 (O'Neil/Jerome)	23	0	1	Yes	79%	100%	24
Motion : Adopt the proposed 2026 work plan and business plan, with recommendation to the Council for approval. (Brown/Hoch)	20	0	0	Yes	68%	100%	20

September 16, 2025, Meeting Attendance

* Designates Voting Member

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Name	Affiliation			
Jamie Anthony*	BPA			
Landon Barber*	Idaho Power			
Keith Barrow	NW Natural			
David Baylon*	Independent			
David Bopp	RTF Contract Analyst			
Ryan Bottem	Public Gen Pool			
Gregory Brown*	Tierra Resource Consultants			
Kyle Chase*	Jefferson PUD			
Noe Contreras*	NEEA			
John Davey	Puget Sound Energy			
Bob Davis*	Ecotope			
Christian Douglass*	RTF Vice Chair			
Logan Douglass	RTF Contract Analyst			
Jesse Durst	Puget Sound Energy			
Christopher Dymond	NEEA			
Ryan Firestone	RTF Contract Analyst			
Wesley Franks	WA UTC			
Trevor Frick	Clark PUD			
Lisa Gartland*	ODOE			
Kevin Geraghty*	independent			
Andrew Grant*	Cadmus			
Jackie Goss	Energy Trust of Oregon			
Megan Greenauer	Energy Trust of Oregon			
Todd Greenwell	Idaho Power			
Dan Groshans	CLEAResult			
Adam Hadley	RTF Contract Analyst			
Wylie Hampson	NEEA			
Michael Hoch*	Energy Trust of Oregon			
Mattias Jarvegren*	Clallum PUD			
Mark Jerome*	CLEAResult			
Marshall Johnson	Energy Trust of Oregon			
Phillip Kelsven*	BPA			
Rick Knori*	Lower Valley Electric			
Jennifer Light*	RTF Chair			
Denis Livchak	RTF Contract Analyst			
Ben Mabee*	BPA			
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Bruce Manclark*	Earth Advantage
Rob Marks*	Snohomish County PUD
Eric Miller*	Independent
Ali Mires	Douglas County PUD
Ken Morgan	Gensco
Holly Mulvenon	Puget Sound Energy
Brandy Neff	PNGC Power
Andi Nix*	Energy Trust of Oregon
Nick O'Neil*	Energy 350
Andrew Paul*	Avista Corp
Joe Prijyanonda	ICF International
Kylie Pough	Energy Trust of Oregon
Laney Ralph*	NW Natural
Ronald Ramey	Energy-Solution
Blake Ringeisen	NEEA
Samuel Rosenberg*	Pacific Northwest National Lab
Josh Rushton	RTF Contract Analyst
Isaac Schultz	independent
Leila Shokat	Energy Trust of Oregon
Paul Sklar	RTF Contract Analyst
Kevin Smit	NWPCC
Kenji Spielman	Energy Trust of Oregon
Jonnalea St. Goddard	Glacier Electric
John Stalnaker	BPA
Laura Thomas	RTF Manager
David Tripamer	BPA
Jim White*	Chelan County PUD
Sarah Widder	NEEA
Scott Yee	Resource Innovations