July 22, 2025
Meeting Minutes

Welcome, Agenda Review and Meeting Minutes
Jennifer Light, RTF Chair, began the meeting at 9:00am by calling for introductions. She counted 21 voting members. Mark Jerome, CLEAResult, moved to adopt the minutes from the June 17th meeting. Laney Ralph, NW Natural, seconded. The minutes were approved unanimously.

Eric Miller, independent, moved to adopt the days agenda. Christian Douglass, RTF Vice Chair, seconded. The agenda was adopted unanimously.

Management Update
Laura Thomas, RTF Manager Presentation
Staff presented the updates. There was no discussion.

Update Planning, Proven UESs: Residential Heat Pump Water Heaters and Consumer Heat Pump Water Heater in Commercial Applications
Adam Hadley, RTF Contract Analyst (CAT) Presentation
Staff recommended based on recent data that the measure status be set to under review and requested a sunset date extension to allow the region to complete additional analysis on operation mode of heat pump water heaters. Discussion touched on setting controls to hybrid or resistance-only. The RTF approved the motion and will take the work up again in January 2026.

Dave Baylon, independent, pointed to the availability of minute data on [Slide 4]. He said this allows researchers to distinguish between resistance versus heat pump use. Baylon pointed to potential occupant control issues asking what the region should do when occupants set controls to resistance only. Baylon then asked if the years in the data are for any one set case.

- Adam Hadley, RTF CAT: They are one case. I didn't understand your first question. Probably because there wasn't a question there.
- Baylon: There wasn't.

Ben Mabee, BPA, asked where hybrid mode would plot on this chart.

- Hadley: We could know where it would plot but I didn't do that. That's the next step.

Dan Auer, King County Housing Authority, pointed to putting HPWH in single family homes, asking where to send cost information.

- Thomas: Send it to me.

Jim White, Chelan County PUD, asked if there were mean and standard deviation statistics for the presented data.

- Hadley: No. I'm showing this to give some initial insight. The data is incomplete.
- Laura Thomas, RTF Manager: We looked at the data as a litmus test, as a way to judge if we need to do more. We do.

Miller addressed Baylon's earlier comment about operator error. He said this slide illustrates that many people don't realize this unit has an air filter.

Rob Marks, Snohomish County PUD, noted that installers hate call backs so they will adjust the settings to stay in resistance or hybrid mode.

- Bruce Manclark, Earth Advantage: These systems do not reset after three days. Usually, it's done because of customer complaints.
- Hadley: They will but there is a super-secret mode that doesn't reset.
- Ben Larson, Larson Energy Research: NEEA requires tier 2 or higher, but all products on the QPL do have this feature.

Auer said his organization's heat pump choices are part of a package of measures [Slide 5]. He asked if RTF analysis considers this.

- Hadley: We take heating/AC interaction into account in our UESs.
- Light: We look at things measure by measure. You can see all the pieces in the additional slides.

Baylon asked if the RBSA audit measures things like hot water flow.

- Hadley: I don't know.
- Baylon: We know a lot about the building. It would be helpful to know things like how many bathrooms/showers there are.
- Hadley: We know the number of occupants.
- Baylon: We've tried to use the relationship between occupants and hot water use six times before and it's pretty helpful.
- Hadley: The idea is to link as much of the RBSA data back to the houses as possible.

Jerome stated the Snohomish PUD electric upgrades had the biggest variability [Slide 7]. He didn't know how the costs would fit into the RTF work.

- Marks: It wasn't my program, but I recall that the work included low-income sites with older homes that need a lot of upgrading to get up to code. They also needed vetting. That would bump up the costs.

MOTION

I, Dave Baylon, move that, for the Residential HPWH and Consumer HPWH in Commercial Applications UES Measures, the RTF: change the status from "active" to "under review," and set the sunset date to January 31, 2026.

Mabee seconded.

Auer asked if there is any work being done on multifamily.

- Light: We have a variety of water heater measures. Let's follow up offline and talk about the whole suite.

Jerome noted the January 2026 sunset date, wondering if that is enough time.

- Marks: I wonder that too.
- Thomas: We think so because NEEA will have data in the fall.
- There were head nods from NEEA staff attending the meeting in person.

White said he will have to leave the meeting but wanted to vote in favor of the motion.

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

Deactivate Small Saver UES: School Weatherization
Laura Thomas, RTF Manager Presentation
Staff presented the recommendation to deactivate the School Weatherization measure. After receiving encouragement for the region to propose new weatherization measures, the RTF deactivated this UES.

Baylon pointed to concerns that the rural community doesn't get enough RTF attention, saying that this will further that assumption [Slide 6].

- Thomas: We built this measure because of concerns from the Small/Rural Subcommittee but that subcommittee says they no longer offer this and it is not the current area of focus.
- Light: If the Small/Rural Subcommittee is not hankering for this then we shouldn't push it on them.

Mabee said this is still offered in BPA's general commercial weatherization programs adding that it doesn't see high numbers. He didn't see any issue with deactivating today but had plans to look at commercial weatherization more holistically in the future.

- Baylon: So are you breaking it apart into individual measures.
- Mabee: We split them out by general building types.
- Baylon: So when utilities report this activity it comes up as commercial weatherization and not school weatherization?
- Mabee: Yes.

Auer asked what the RTF considers as weatherization. He pointed to his organiztion's work with air handling, wondering if that is considered weatherization.

- Thomas: This measure is for attic, wall, and floor insulation along with windows.
- Light: We develop estimates for measures as the region desires. If the region wants to capture other things we would love to see a proposal.
- Auer: Weatherization has always included air leakage control but it is typcially not taken up by utilities. Our organization has had great success with this.

MOTION

I, Mark Jerome, move that the RTF deactivate the School Weatherization UES.
Miller seconded.

Vote on the motion. The motion carries (20 yes, 1 no, 0 abstain)

Draft RTF 2026 Work Plan Discussion
Laura Thomas, RTF Manager Presentation
Staff presented the Draft 2026 Work Plan and released it for a 30-day comment period. RTF members discussed the need for, and the shape of, regional coordination. They also discussed ongoing Whole Building Performance efforts. Comments are due to Laura Thomas by August 22, 2025.

Baylon asked if the regional coordination noted on [Slide 16] includes coordination with assorted utilities.

- Thomas: It includes a broad bucket of things like the CAT working with NEEA, BPA, the CBSA, RBSA and HEMS working group. There's budget for the CAT to assist and answer questions along with supporting planning work and special projects.
- Baylon: I would strongly suggest a different bucket for utility coordination or make it part of that allocation. There are things going on at utilities that are different than chasing-our-tail measure development. It might be nice to know what else is going on in the region besides Door Sweeps.
- Thomas: The Council staff tracks a lot of that. This budget is about CAT technical support. What you're referencing is happening but not with the CAT.

Auer asked what REEDR stands for [Slide 21].

- Thomas: It's the Residential Energy Efficiency & Demand Response tool.

Light said she looked forward to more in person meetings, adding that the RTF used to hold them every month [Slide 23].

Baylon lamented that the RTF has, once again, "dodged the bullet" of doing any performance-level improvement [Slide 25].

- Light: This is a Draft Work Plan. You don't know the details in those new measures.
- Baylon: The Council is concerned about this and is making some effort. The RTF should weigh on this but there is no systematic way to do this.
- Thomas: We have two things to work on this year for the Whole Building work, Industrial SEM and residential behavior. The Whole Building work has been a challenging area for the RTF but updating these two things will hopefully help.
- Baylon: SEM for commercial sector might be easier to solve.
- Thomas: Commercial SEM is on my mind. We started work with SBW last year and they provided some recommendations.
- Light: We are not trying to ignore whole building work. It's challenging for the RTF to do considering our role. We want to do good UES work but figuring out how to expand is hard. Remember, this is a Power Plan year and that takes a lot of CAT time. Also, all the

interest in heat pumps this year takes time. Your point is well taken, and we want to do this but there is no easy, silver bullet approach.
- Rushton: We are actively working on a new Plan. You should be engaging with that because that's where the potential shows up.
- Light: The supply curves are done. Pencils are down.

Jes Rivas, Swift Strategy, asked that Light summarize what Baylon is talking about for the newer RTF members.
- Light: It's Whole Building Performance.

BREAK

Update Planning UES: Retrofit Doors on Existing Display Cases
Denis Livchak, RTF CAT, Presentation
Staff presented presented proposed updates. The RTF discussed potential issues of short-cycling, savings with gas versus electric heat, and the need to check for refrigerant. The RTF approved the updates and set the sunset date to July 2028.

Brown asked why low-temperature vertical cases are not included [Slide 7].
- Livchak: We are proposing to add them.

Baylon asked if there are a lot of vertical low temperature cases [Slide 8].
- Livchak: No, there will be a slide on that coming up.

Baylon asked if there are night curtains in the base case [Slide 11].
- Livchak: We don't know if the base case has night curtains in it. So we don't include them.

Baylon wondered if there is a horizontal cases measure.
- Livchak: Yes.
- Baylon: So, you're putting the cover on the case
- Livchak: Yes, there are companies that make those door retrofits.
- Baylon: And you only get 1/3 of the savings?
- Livchak: Yes it's a matter of horizontal versus vertical equipment. The air doesn't move as well through the horizontal case and there are no evaporator fans.
- Andy Nix, Energy Trust of Oregon: There's a big difference in infiltration. The vertical case has an air curtain to hold the air. The horizontal case has nowhere for it to fall.

Marks cautioned the CAT on efficient case minimums saying they ship from the factory with a smaller system and retrofits have a larger system that contractors try to dial back down.
- Livchak: We have a slide with methodology shortfalls on it coming up.

Baylon asked if this is a gas measure as well as electric [Slide 12].
- Livchak: You would save close to 50 therms per year per linear foot.
- Thomas: We're going to keep the classification as an electric measure because the technology is electric.
- Light: Could a gas utility offer this measure?
- Thomas: Potentially.

Jamie Anthony, BPA, asked why this is important as there are both electrical and gas savings.

- Baylon: Because a gas utility could offer this as a measure.
- Light: We can talk more about this offline. There are real gas savings here.

Baylon asked if this will cut into cooling.

- Livchak: Yes. You will use more cooling.
- Baylon: Looks like a big cooling interaction. I doubt it's that much.
- Livchak: It's actually not that much of an intereaction. The heating and cooling cancel each other out on the electric side.

Baylon confirmed that someone will come out and fix the case if it is overcooled and there are alarms [Slide 13].

- Livchak: We hope so. There is delivery verification guidance.

Nix asked if the DOE standard considers reduction to the refrigeration load when you add doors. They said they understood the standard perscribes how much energy could be used.

- Livchak: It's based on a closed case from a factory as compared to an open case kWh per day.
- Thomas: There is no DOE standard for retrofit doors.
- Nix: So any reduction is counted in the savings?
- Livchak: Yes.

Hadely explained that the kWh per day is the sum of the electric energy used by the case and the refrigerant energy covered, asking if Nix was happy with that.

- Nix: Yeah, I'm happy with that.

Noe Contreras, NEEA, expressed concern with short cycling, improper humidification, and potential for mold. He said cases with retrofit doors and a large evaporator could cause short cycling and we don't have data that illustrates this.

- Livchak: We are assuming the system is modified to not short cycle so these issues would not occur. There is data, a Smart Grocer program that have done hundreds of these retrofits. We're pretty confident these issues are not occuring.

Baylon cautioned that [Slide 15] does not include the heating interaction which is not electric. He said the only interaction showing is cooling so you would expect the number to be smaller.

- Anthony: You could be right. I don't know what kind of heating these sites had. Also we don't know how precise the number is but you could get that from the regression models on the building. We have more sites if you like.
- Marks: A lot of the larger chain stores have condenser heat that they are scavenging and putting into air handlers.

Auer was unclear about the percentage of total building savings, wondering if it only included kWh or therms as well.

- Anthony: I would have to check. I assume this is purely electric.
- Thomas: If we get more data we can update at anytime. This is about the measure being Planning or Proven.
- Anthony: This is 17aMW versus 400.
- Thomas: Yes from a regional perspective this is small. But we do have a lot of measures that sit in Planning that add to regional work. Having it in Proven would reduce our collective lift.

Anthony thanked Livchak for adding vertical low temp cases [Slide 17] saying he gets some calls about these units.

- Livchak: The savings for these should be about 3000 kWh per linear foot.

Baylon asked if [Slide 18] is for both low and medium temperature.

- Livchak: Yes.

Nix asked about the depth of horizontal cases that are set up back-to-back like an island.

- Livchak: It's still two separate cases with separate doors so it is measured that way.
- Nix: And it's measured by square foot in the measure?
- Livchak: Not currently but that is what we're proposing.

Anthony asked if vertical cases would be switched as well.

- Livchak: No, the vertical cases stay per linear foot because the height is consistant from manufacturer to manufacturer.

Baylon expressed disbelief with the heating shape on [Slide 24] saying it looks wrong for grocery stores where the heater is almost always running.

- Livchak: It's a savings shape not a heating shape.
- Baylon: I think it would be flatter.
- Hadley: We can look into this.

Baylon asked about produce cases [Slide 27].

- Livchak: The mister cases are not refrigerated and should not be accounted for.

Nix asked if the 75% medium temperature open display cases includes island cases as found in a deli. They said these would not be compatable with adding a door.

- Livchak: I don't think island cases should be included. I would have to check the CBSA to see if they are separated there.

Baylon asked if someone can or cannot check if the refrigerant has been adjusted [Slide 33].

- Livchak: That would be too complex for program implementors.
- Baylon: The work invoice should show it.
- Livchak: There is a checklist of 14 adjustments.
- Baylon: But this is an important one.
- Anthony: It's our job to quantify how much energy this could save. It's not to lead people down a disasterous path. It's the refrigeration contractors job to understand how refrigeration works.
- Thomas: Staff discussed this. We landed on this as experts say grocery managers will report when something is wrong pretty quickly.

Parking Lot

Livchak confirmed that the same heating shape is to be used for both gas and electric.

- Baylon: I'm skeptical of that shape unless there is electric resistance heat.
- Douglass: There is another commercial shape from CEUS we could use.
- Baylon: That might be just fine here.
- Thomas: We could compare the two and bring it as an update.

MOTION
I, Dave Baylon, move that the RTF approve the Retrofit Doors on Existing Display Cases UES measure as presented and Review heating interactions load shape, Evidence of refrigeration commissioning for delivery verification, keep the Category at Planning, Keep the Status at Active, Set the sunset date to July 31, 2028.
Marks seconded.

AMENDMENT
Anthony proposed the following amendment: Strike the Evidence of refrigeration commissioning for delivery verification.
Jerome seconded.
Anthony stated that just showing that the doors are still up three months later is sufficient. He said the invoice will show that a contractor was present, but sometimes the invoice is about the doors only. Anthony thought this would put extra burden on the measure.

- Jerome: I agree. It's an unneeded, extra layer of burden.
- Marks: I disagree that this is unneeded. A third party will install the doors and there can be a disconnect requiring many service calls. I've heard complaints from store managers. It can be a huge disconnect.

Hadley said the spec requires dealing with the refrigeration system so the question is about delivery verification. He recalled Baylon's concept of seeing an invoice, but imagined a world where we don't need to see an invoice.

Brown thought aloud about delivery verification for Planning versus Proven.

- Light: You have to do more than delivery verification with Planning.
- Brown: Does that make this point moot?
- Light: The extra work that needs to be done is completing the research strategy or a full impact evaluation.
- Auer: I work on buildings that have never been commisioned. I think commissioning is really important.

Baylon thought this was important, even if the issue would be obvious over time. He insisted it should be part of the measure.

- Thomas: It is part of the measure.
- Light: The measure requires commissioning and a three month check.

Vote on the amendment. The amendment passes (13 yes, 7 no, 3 abstain)

Brown asked what the first bullet, Review heating interactions load shape, means.

- Thomas: I can bring an update back.
- There were head nods in the room.

AMENDMENT
Nix noted that there an assumption that lighting will not change, but stated that adding doors casts shadows. They suggested the following amendment: Add tracking lighting changes to the research strategy.
Nick O'Neil, Energy 350, seconded.

Brown said the spec says the doors including LED lights so it would track preconditions.

- Livchak: The spec doesn't say anything about lighting for vertical. I don't know about horizontal.
- Marks: Our baseline is 2017. I assume that case would have come with LED lighting. So is there a reason to look at it?
- Nix: If there is lighting. There's not always lighting for horizontal cases.
- Marks: Most vertical cases do have lighting.

Vote on the amendment. The amendement passes (20 yes, 1 no, 1 abstain)

Vote on the motion. The motion carries. (21 yes, 0 no, 1 abstain).

LUNCH

Update Standard Protocol: Voltage Optimization Protocol
Josh Rushton, RTF CAT, Presentation
During the presentation RTF members discussed the difficulty of the proposed approach and encouraged reexamining the scope and approach of the measure. Staff noted that new data will be coming in the next year and proposed an earlier sunset date. The RTF approved the measure with a shorter sunset date.

Baylon recalled this measure being a big deal in 2010 [Slide 4]. He remembered that the report measured savings at the substation and at the end-use level.

- Rushton: Let's get back to that later in the presentation.

Baylon thought the automated protocol on [Slide 10] was used in the past. He recalled it was at the substation level, which revealed a lot of information.

- Rushton: People have used that in the past and are still using variations of it.
- Baylon: This data leaves us much better off than trying to figure out how many motors there are in the refrigeration system of the average house.
- Rushton: Good point. We will talk about this later in the presentation.

Lisa Gartland, ODOE [Slide 9] said a lot of the devices ramped down deliver something, like cooling, heating, or air flow. She said reducing the load means they will have to run longer. Gartland said these devices are different than lighting and wondered how much this has been accounted for.

- Rushton: We don't take the specific CVR factors in this graph as gospel. But in general, there has been a lot of research in this area, and people are aware and careful about things like thermostatically controlled loads compensating for reduced voltage with longer runtimes.
- Gartland: Even for electric resistance heating the savings would not be zero because there are times when you have unmet load. That saves energy.
- Rushton: That's fair.

Rivas was confused by [Slide 7] as she thought the protocol did not require reactive power management.

- Rushton: It's not required but many programs do it in connection with VO/CVR implementations anyway. In many cases it can enable higher savings through deeper

voltage reductions, in addition to increasing utility-side savings via reduced conductor losses.
- Baylon: I don't know if that is true.

Baylon thought that if a utility implemented this and observed a lower kWh draw the work would be done [Slide 20]. He said the VO factor is irrelevant.

- Rushton: That active day-on / day-off measurement is not trivial. For systems that don't have automated capability, you would have to send someone out to adjust the physical taps.
- Baylon: You would do it rarely.
- Rushton: A sample of minutes wouldn't work. We could talk about your proposal for a new protocol, but I don't buy it.
- Baylon: Why are we worrying about the particulars of the appliance or heating on a particular circuit in a particular place? We should be more worried about if we can find out what we need to know about the parameters of consumption at the substation.
- Rushton: I don't think we can do that for all systems.
- Light: This touches on Rushton's slide about the tale of two protocols. There's the one that is very complex, but the RTF offers simplified protocols. This one gives us canned factors to simplify things.

Rick Knori, Lower Valley Electric, said he's been doing demand reduction with voltage for about 15 years and explained his method. He said it's been very effective on feeders with highly resistant loads but less effective on long rural feeders. Knori said he sees a shift in heating load but calls it a good strategy for demand reduction for peak.

Eva Urbatsch, Puget Sound Energy, addressed Baylon's earlier point saying not all of Puget Sound's feeders can use automated controls for CVR, so they require the simplified protocol.

Anthony asked if [Slide 22] implies that an end user will save some money, but the utility will only save 10% of that.

- Rushton: No, the total reduction in kWh the utility sees at the substation is the end-user savings plus 10% in distribution losses.

Light noted that CVR and Demand Voltage Regulation was flagged in the Plan as a big part in keeping the system adequate [Slide 23]. She said staff does their best to estimate the savings that could be provided but we have old data. Light called this area really important and stressed that it's critical to understand.

- Baylon: This is probably a DR measure.
- Light: The Plan modeling will reveal what it prefers. This is a big piece of savings at certain times of the day.

Auer recalled replacing 135 heat pumps in one area (apartment building). He asked if bigger projects have a bigger impact on the load or if this generates an estimate of how many households have ductless heat pumps.

- Rushton: I don't quite get your question. If you've converted a load to heat pumps and now you want to apply the VO protocol, that heat pump shift will come up when you

select the VO factor from the lookup table. You're going to pick a table column that reflects the high percentage of non-electric-resistance heat when you select your VO factor.

- Auer: The projects I work on are 135 units at one address. Will that kind of significant change to the load have a different impact than scattered single family homes?
- Rushton: I don't know.

Baylon asked if the bottom line on [Slide 24] is because 0.86 is how much nonresistance heat is left.

- Rushton: It reflects the fact that on balance, load has shifted from higher-CVRf technologies to lower CVRf technologies. So yes, this includes a portion of resistance space heat shifting to centrally ducted heat pumps, but it also includes trading incandescent lights for LEDs. Stuff like that.
- Baylon: Where did that estimate come from?
- Rushton: The 2010 and 2022 RBSAs are the biggest sources for stock shifts. RBSA 2010 Metering study was helpful for end-use load estimates.

Baylon confirmed that the 10% being tossed to the utilities is multiplied by 0.86 [Slide 29].

- Rushton: Yes. End-user savings estimates go down by a factor of 0.86, and overall savings increased by a factor of 1.10. There is a high degree of uncertainty.

Baylon asked about feeders [Slide 30].

- Rushton: These are done with an automated method. They include utility-side savings. Our tables do not so we have to make an adjustment to get a fair comparison.

C. Douglass asked about the 10% assumption, wondering if it actually a range [Slide 31]. He then asked about the extreme variability in the Avista numbers, wondering if they talk about possible drivers.

- Rushton: There was nothing in the report about the variability. For the 10%, Clallam County PUD shared data from three feeders that were all very close to 10%, and this aligned with expectations we had heard from Tony Koch at BPA.

Rivas asked [Slide 31] if the CVRs being recommended have been corrected from the top-down approach.

- Rushton: These are prior to correction.
- Rivas: Did the CAT look outside the region?
- Rushton: No. There is a lot of literature in this general area but not alot of the protocol's CVRf tables translate across regions, so it's hard to make this kind of comparison with our-of-region evaluated CVRfs.
- Rivas: Illinois has done a lot of this to establish a CVR factor for use at the feeder level. So the Illinois TRM just gives a single factor (0.8) to be used at the feeder level.
- Rushton: That's not too different than what we're doing here. In this exercise, I'm just trying to make an apples-to-apples comparison between top-down evaluated CVRf values and the values in our protocol tables.
- Rivas: I'm thinking about the utilities. Would I rather estimate the load mix on my feeder or tell you definitively what the load on my feeder is. There are two different ways to do that, and this protocol is hard to follow.

- Rushton: I'm not quite following.

Rivas then asked how the region landed on the bottom-up approach.

- Rushton: It's based on the knowledge that end-user stuff has shifted from the original study in 2008. That study was pretty intensive because of the technology available at the time, but it would probably be easier to do it now with homes with AMI, but this approach with tabulated CVR factors is intended to make it easy for feeders without automated capability.
- Rivas: So, you're resistant to do it at the feeder level but want to break down end uses. I encourage you to look at how other regions do this because they have a different approach but get as close as this but with a lighter effort from the utility.
- Rushton: That's a reasonable question for the RTF. Could we collapse our CVRf tables to a single number and not ask about feeder-level equipment saturations?

Rivas said her earlier comment was about using a single deemed CVR factor instead of tables [Slide 32].

- Rushton: I don't have a strong opinion about that. We should ask utilities what their obstacles are – is that really a big obstacle?
- Hadley: So [Slide 16] represents where a utility would estimate every feeder?
- Rivas: We are in a lot of uncertainty here and that variability is everywhere. I was wondering how we ended up here. Illinois uses the same equation and one deemed value of 0.8. I'm not convinced you would get to a different place with uncertainty using this table. And this feels hard.
- Rushton: We should discuss this in subcommittee. These tend to be more rural feeders that might have more electric heat than the broader population. We would have to pick a number that we think is right for the feeders we expect to use the protocol.
- Rivas: I guess we'd still want to have some variation depending on heat sources. It's just that this feels like a lot.
- Light: This measure sunsets this month. We would need to at least extend the sunset date.

MOTION

Light asked if the five-years sunset date is still a good idea.

- Thomas: We learned from the subcommittee that there are few planned projects in the subcommittee meeting so we may have more data soon. It would be good to give it at least a year to let that happen. We also heard some interest in doing more research to update the tables.

Bob Davis, Ecotope, said he didn't understand the ductless heat pump saturation line.

- Rushton: The DHP saturation is still a fact, but the question is how they impact CVRfs. The claim I'm making is with respect to CVRfs, DHP loads are more similar to resistance heat than a ducted heat pump.
- Davis: Keep in mind how much Clallam County PUD is looking at this. They have a high fraction of ducted and ductless systems. Their contribution will be useful. I also think the sunset date should be shorter.

Light summarized that the idea behind the 2-year sunset data is not just to come back a month ahead and see what we have, but to use the time to have a wider conversation: Based on any updated data as well, are there ways to simplify the protocol to improve uptake with similar reliability.

I, Jes Rivas, move that the RTF approve the updates to the Voltage Optimization Standard Protocol as presented, and: Modify customer-side CVRfs by a factor of 0.86, Add default savings value for utility-side savings, 10% of customer-side savings, Keep the Status at Active, Set the sunset date to July 31, 2027.
Miller seconded.

Mabee stated that Tony Koch, BPA, voiced approval with the subcommittee discussions and was in favor of the updates.

- Light: That is good to know. He is a great asset.

Vote on the motion. The motion carries. (22 yes, 0 no, 0 abstain)

Light ended the meeting at 2:30.

Voting Record: July 22, 2025

Motion Language	Yea	Nea	Abs	Motion Passes?	Percent of Yea Votes		Number of Voting Members Present
					RTF Voting Members (40% min)	Members Voting (60% min)	
Motion: Approve the minutes from the June 17, 2025 RTF meeting. (Jerome/Ralph)	21	0	0	Yes	72%	100%	21
Motion: Approve the agenda for the July 22, 2025 RTF meeting. (Miller/Douglass)	21	0	0	Yes	72%	100%	21
Motion: Change the status from "Active" to "Under Review" for Residential Heat Pump Water Heaters and Consumer Heat Pump Water Heaters in Commercial Applications and set the sunset date to January 31, 2026 (Baylon/Mabee)	24	0	0	Yes	83%	100%	24
Motion: Deactivate the School Weatherization UES (Jerome/Miller)	20	1	0	Yes	69%	95%	21

Motion: Move that the RTF approve the Retrofit Doors on Existing Display Cases UES measure as presented, and: Keep the Category at Planning Review heating interactions load shape Add track lighting changes to research strategy Keep the Status at Active Set the sunset date to July 31, 2028 (Baylon/Marks)	21	0	1	Yes	72%	100%	22
Amendment: Strike bullet on "evidence of refrigeration commissioning for delivery verification." (Anthony/Jerome)	13	4	2	Yes	45%	76%	19
Amendment: Add track lighting changes to research strategy (Nix/O'Neil)	20	1	1	Yes	69%	95%	22
Motion: Approve updates of the Voltage Optimization Standard Protocol as presented, and: Keep the Status at Active Modify the customer-side CVR-f by a factor of 0.86 Add default savings values for utility-side savings, 10% of customer side savings Set the sunset date to July 31, 2027 (Rivas/Miller)	22	0	0	Yes	76%	100%	22

July 22, 2025, Meeting Attendance

* Designates Voting Member

Name	Affiliation
Doug Adams	Clallam PUD
Jamie Anthony*	BPA
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