



## Regional Technical Forum

**January 21, 2026  
Meeting Minutes**

### **Welcome, Agenda Review and Meeting Minutes**

Kevin Smit, RTF Chair, began the meeting at 9:00am by introducing himself as the new RTF Chair. Christian Douglass, RTF Vice Chair, called for introductions. Smit counted 24 voting members present in person and on the phone.

Eric Miller, independent, moved to approve the day's agenda. Kyle Chase, Jefferson PUD, seconded. The agenda was approved unanimously.

David Baylon, independent, moved to approve the minutes from the December 9, 2025 RTF meeting. C. Douglass seconded. The minutes were approved unanimously.

C. Douglass kicked off the meeting with two, groan-worthy dad jokes. The RTF responded accordingly.

### **Management Update**

#### **Laura Thomas, RTF Manager [Presentation](#)**

*Staff presented the updates. The RTF focused questions on the heat pump portion of upcoming work.*

Baylon asked if the Heat Pump reporting work is underway [Slide 7].

- Laura Thomas, RTF Manager: It's starting next month.
- Baylon: Are you using internal information and staff?
- Thomas: All three projects are external.
- Baylon: This has been on the RTF's table for 15 plus years now. I'm surprised we're going back outside to get more opinions that might not reflect the northwest.
- L. Thomas: We don't have the CAT resource to do this. I think the contractors we've selected are the right fit. They know the region and the RTF. The CAT will engage with the contractors to ensure they deliver what the RTF needs.

Jamie Anthony, BPA, asked if the work is across all sectors and end-uses.

- Thomas: For right now it's just residential space heating. There are no other sectors and no water heating.

Baylon asked about the schedule for the workshop.

- Thomas: It should be by the end of June.

**Sunset Date Extension Planning UES: Consumer Heat Pump Water Heater in Commercial Applications and Planning, Proven UES: Residential Heat Pump Water Heaters**  
**Laura Thomas, RTF Manager [Presentation](#)**

*Staff requested a sunset date extension for these two measures, which the RTF approved.*

**MOTION**

I, David Baylon, move that the RTF set the sunset date for the Residential Heat Pump Water Heaters and Consumer Heat Pump Water Heaters in Commercial Applications UESs to May 31, 2026.

Miller seconded.

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

**Update on the 9<sup>th</sup> Power Plan**

**Kevin Smit, RTF Chair, Christian Douglass, RTF Vice Chair [Presentation](#)**

*Council staff shared an update with the RTF on the work on the 9<sup>th</sup> Power Plan. The RTF asked questions about the new modeling zones, the reality of data center loads, and how the Power Plan influences RTF work.*

Baylon pointed to the 17 zones illustrated on [Slide 7] asking if the enhancements are in or out of the region.

- Smit: They are all in the region. All 17 zones are in the shaded area of the slide, which defines the region. In order to understand supply and demand in the broader WECC region, we need to understand what's going on elsewhere, like the oversupply of solar in California.

Baylon asked if that means that customer activity is divided into 17 zones in the region.

- Smit: We're not yet sure if target and recommendations will be zone-specific.
- Baylon: It puts demand on population characterizations. I'm not sure if we have those details.
- Smit: Good observation. If it proves useful to go into detail on location, we'll refine this.
- C. Douglass: Dave makes a good point. We don't have highly granular data about everything. But consider ag irrigation for example. Previously, that was spread over the region. But it's mostly in Idaho Power's territory. And high-rise commercial is mostly in Puget Sound Energy's territory.
- Baylon: Going back to irrigation, we can differentiate by type of irrigation supply. Urban areas are differentiated by load, but maybe not by sector. Puget Sound Energy versus Seattle City Light high-rise characteristics might be pretty similar.

Anthony asked about the nodes and connections illustrated on the slide.

- Smit: The nodes are Balancing Authorities. Lines are roughly the transmission connections. We want to understand transmission constraints and their cost.

- Anthony: So why don't you anticipate differentiated targets for each zone?
- Smit: That's a lot to ramp up to. We may get there over time. And maybe, if the data gives us a strong signal, we could get into it in the target.

Baylon thought this approach will put considerable stress on modeling capabilities for the demand side. He agreed it seems like a useful addition but suspected 17 zones is too many.

Josh Rushton, RTF Contract Analyst, asked if there are any reasons why the load is going to grow after not growing for 10 years [Slide 12].

- Smit: Data centers and electric vehicles are new, big loads. And electrification policies to some extent.
- Baylon: We've had lots of data centers in the region for decades. Are these additional data centers planned?
- Smit: We've worked hard to understand the range of data center growth. It's not going to be nothing, but it won't be as big as all the hype you are hearing.

Lisa Gartland, ODOE, noted that data center energy use shown on the slide is really low.

- Jennifer Light, NWPC, pointed to three data center trajectories explaining that the RTF is looking at the "medium-low" trajectory. She said the "high" trajectory is what happens if all the planned data centers show up.
- Gartland: But you're already starting too low.
- Light: You're seeing incremental, new data center growth. We can provide the details of this analysis. Our "high" forecast is bigger than many others out there.
- Gartland: We found one set of data centers that was using 20% of state-wide commercial energy.
- Smit: That's captured in our base loads.

Baylon said [Slide 18] looks good. He thought that new commercial, which is about 40% of 2046 load, is stuff that hasn't been built yet. Baylon argued that the opportunity to reflect what will go on in those buildings is still out there, calling it a different and big animal.

Anthony pointed to low uncertainty for residential passive houses costs but noted that uncertainty is high for EV costs. He asked for further explanation.

- C. Douglass: In some cases, the range is not getting at uncertainty as much as the measure applications. It's the range of a new passive house versus converting an existing building. For example, a newly constructed multi-family is 150 while converting an existing single-family home is the 450 range.
- Smit: And uncertainty is low if we have data. We have no idea about EVs because we don't know what the measures would be. That's where the uncertainty comes in.
- Baylon: So, it could be zero MW.
- Smit: Right.

Eva Urbatsch, PSE, asked about the distribution system potential [Slide 22].

- Smit: It's about transformer right sizing. We saw a study showing half of a percent savings of total load with right sizing. There are also older NEEA studies on making transmission more efficient. It's a catch-all category. The base supply includes CVR and BVO.

Mark Jerome, CLEAResult, asked if staff are looking at this through lens of cost effectiveness.

- Smit: This gives our model something to consider in the outer years. Yes, it's expensive. But we don't know if it's cost effective until the whole analysis is done. If there are huge needs and nothing else available, the model will pick it up. But it also has to be reliable and available to be considered cost effective.

Baylon said that some of the "emerging tech" listed, like the passive house which has been around for 35 years, isn't emerging. He suggested a subcategory: stuff that exists but the cost is frightening. He then suggested the subcategory of: can you get a program to work?

Jim White, Chelan County PUD, noted finding huge savings in commercial building O&M, citing 25 to 40% savings from just looking at after-hours energy use [Slide 29]. He stressed that this doesn't cost much as it's just turning off systems during unoccupied hours. White added that VAV sucks.

- Smit: Thanks. We have SEM in the Plan but let us know if you see even lower costs.

Baylon asked if staff are just chopping off the top of the distribution at the 25<sup>th</sup> percentile.

- Smit: Yes. We're saying all buildings can get down to the level of the best 25<sup>th</sup> percent.
- Baylon: That's a fairly conservative analysis. Other buildings that haven't been covered also have opportunities.
- Smit: It's a way to get at potential.

Andrew Grant, Cadmus, called the work on standardizing templates great saying it should be the structure for big data going forward [Slide 41]. He said staff should be proud of this.

- Smit: Thank you.

Baylon recalled a bunch of "opportunities" in 1980 that no longer exist that allowed the region to do "measures" instead of performance. He said this is no longer the case and the region needs performance. Baylon called the conservation standards and all state-wide conservation work more important than the measures.

Anthony asked how Power Plan work translates into RTF activities.

- Smit: Good question. We'll get a target which is an amount of cost-effective conservation. Then, we transfer that back to the RTF with market prices and perhaps an avoided generation or risk credit. There could be a capacity value as well. We get all that to the RTF. Then next year we'll rerun the RTF measure suite with the new avoided costs to generate new cost-effectiveness values. Other recommendations, if there are any, will make their way into the RTF work plan. Finally, Plan measures that aren't RTF measures can go through the new proposal process.

- C. Douglass: There may also be some research recommendations. The 2021 Plan had some big ones that became part of the work plan. And it also generates things we can direct to BPA, NEEA, and other organizations.
- L. Thomas: That's right. For example, take Flexibility and Resiliency. The methodology developed for resiliency valuation was used in the 9<sup>th</sup> Plan. Flexibility drives a lot of the DR work we'll be doing. We had a meta-analysis of the rigor of our cost analyses that drove updates to our measures. There are other things too. Like the 2021 Plan assumes everyone gets air conditioning. That impacts how we do RTF analysis.

Rushton added that it would be helpful to see avoided costs by hour of day, season, and Balancing Authority.

- Smit: We'll have that. Hopefully we don't do all 17 Balancing Authorities at the RTF, but maybe there's a Level 1 and Level 2 Balancing Authority. We'll see.

Poppy Storm, 2050 Institute, addressed the focus on performance brought up by Baylon. She suggested considering building performance standards if there is a plan to include some form of conservation standards. She said states with standards could improve those standards, with milestone targets and a final standard. She added that the final standard would be to understand end point by building types. Storm thought that would be critical for tier 1 and tier 2 buildings, calling them a huge portion of the commercial sector. She wondered how the pursuit of performance at scale impacts utilities.

White said the region needs profiles for EE. He said thermostats are increasing load during peak periods due to pre-cool buildings to align with solar supply.

Smit ended the agenda item and asked interested parties to send staff written comments.

## **BREAK**

### **New Proven UES: Residential Induction Cooktops and Ranges**

#### **Denis Livchak, RTF Contract Analyst (CAT) [Presentation](#)**

*After discussing the particularities of this technology, the testing methods, and the drawbacks of a larger research strategy, the RTF adopted the new UES.*

Denis Livchak, RTF CAT, defined the technology, including the heating element known as a Hob.

- Bruce Manclark, Earth Advantage: Should we call the dial that controls the hobs the Hob Knob?
- There were giggles and groans throughout the room.

Baylon pointed to an opportunity for insulating an oven, adding that nobody adds more than bare minimum [Slide 8].

- Livchak: More insulation would reduce cavity volume or impact form factor.

Noe Contreras, NEEA, asked if test procedure specified cooking vessel material [Slide 15].

- Livchak Yes, it's in the standard. I don't know what it is without looking it up
- Noe: Thermal conductivity will vary with material. There are pots with different materials.
- Livchak: Yes, results may vary based on the type of pot you have. On the gas side, there has been talk of incentivizing cookware, but it's hard to determine if that cookware would get used.

Baylon asked if IAEC 207 kwh/yr is the entire usage or the incremental use of the induction.

- Livchak: That's all the annual energy consumption of the cooktop.
- Baylon: So, savings are a fraction of the 207?
- Livchak: Yes. We'll get to this in more detail in future slides.

Rushton noted that the savings mechanism is plugging up leaks, or energy loss, as illustrated in an earlier slide. He didn't think this would be impacted by material of the cooking vessel.

- Contreras: You can save energy if you have a material that heats up faster.
- Rushton: Fair point.

Anthony addressed waste heat asking about the interactive effect with home heating and cooling.

- Livchak: It's not accounted for. The SMUD report looked at this and found it was mostly a wash between cooling savings and heating loss. Ventilating your kitchen with a hood impacts that conclusion.

Miller pointed to possible technology that auto-sizes to the pan [Slide 18].

- Livchak: Induction only heats up the pan. It won't work if there is a gross mismatch. Some resistance hobs have multiple zones for different size pots.

Gregory Brown, Tierra Resource Consultants, asked if the 5% is based on data.

- Livchak: That is professional judgment
- L. Thomas: We'll put this in the parking lot for discussion.

Contreras asked if [Slide 19] represents actual end use data.

- Livchak: This is a water boil test in a controlled lab.
- Contreras: So, it's not a person actually cooking spaghetti, for example? It doesn't capture the behavior of actual people.
- Livchak: [Slide 22] is actual end use data.

David Jagger, Energy Solutions, wrote, for the "cooktop usage" of 418 cycles per year, and 31 minutes per cycle and the corresponding RECS survey. Does that account for multiple hobs being used in a cooking cycle? Or assumes a single hob operating per cooking cycle, in the chat box [Slide 22].

- Livchak: The 418 could be a combination of multiple hobs. This test method is done on all hobs and weighted towards the largest hob. This should account for using one hob or multi-hob use.

- Jagger through Chat: Don't they normalize the water volume at DOE? So, it's equally weighted across a cooking top.
- Livchak: Yes, it's energy per water volume, which weights the larger hob, larger water volume heavier. The larger hob is 60% of the total water volume.

Jagger asked about normalization, wondering if the DOE method reflects practical use [Slide 31]. He said they assume one hob per use cycle, but we sometimes use more than one. Jagger then pointed to hob preference, saying people use different hobs. Because of this Jagger said the standard seems to work out to equal weighting.

- Livchak: My understanding is that the impact of dividing results by water volume naturally normalizes energy towards the larger hob.
- Jagger: To me, it looks like you're getting energy per water for each hob, and then an average. That's different than what you're describing.
- Livchak: I'd have to look into that. Are you concerned that smaller hobs have lower efficiency?
- Jagger: Not necessarily. But how representative is a test procedure of real usage? That's the theme of my comment.
- Livchak: My understanding is that most hobs are similar size. The SMUD test looked at smaller and larger hobs plus smaller and larger water volume to go with them. They found savings in all cases.
- Jagger: Yes, but we all have preferred hobs. Giving equal weight to each hob could be off.
- Smit: I'll put this in the parking lot.

Jagger then asked about the 418 cycles, with 31 minutes assuming one hob. He thought that would be the most conservative assumption possible.

- Livchak: Respondents were asked how many times they cooked per week.
- L. Thomas: We can discuss this in the research section of the presentation.

Adam Thomas, Acadis Consulting, wrote, does this analysis assume 240V for all systems, or is there a characterization for 120V systems (the market is limited but they have been developed to reduce occurrence of needing panel upgrades).

- Livchak: Almost all ENERGY STAR units are 240 volts. I'm not aware of published data on 120-volt units. And we're excluding portable units.
- A. Thomas: Earlier phase testing in CA showed lower cost of conversion.
- Livchak: Lower boil time would impact efficiency.

Chase noted that boiling is different than stir-frying, wondering if staff considered that.

- Livchak: There's no repeatable test method for stir-fry, so it would be hard to quantify. My understanding that all tests are water boil. Food is mostly water, so the savings mechanism should still apply. Plus, with induction you can use temperature control, which could be an additional savings mechanism. There have been tests on 120v commercial units that showed similar savings over resistance.

Grant pointed to RECS data, wondering if staff correlated the number of cooking cycles to the number of people in household [Slide 36].

- Livchak: No.
- Grant: We should consider this going forward.
- L. Thomas: This was an important slide for us internally. It's larger than a Small Saver, but it didn't seem like the research was worth it to us. That's a judgement call for the RTF. If you don't agree with the numbers on this slide, we need your input.

Kevin Geraghty, independent, pointed to a sea of uncertainties here, mostly with the vast range of usage and behavior but not the equipment. He said if you switched from resistance to induction in a single house the percentage energy reduction should be in a narrow range that can be estimated with engineering means. Geraghty then said most uncertainty comes from cooking behaviors across homes. He said that's where research should be focused if we were to go that route.

Brown explored Proven versus Planning, saying the RTF could develop a research strategy to reduce uncertainty, but this research strategy wouldn't do this. He said this would cost between half a million to one million dollars to monitor people. Brown thought the 0.1 b/c ratio and small savings per unit mean it's not worth spending the money.

- L. Thomas: And this is 6 aMW in the plan.
- Anthony: I think Livchak's estimates are about \$60K for 6aMW. Is \$10,000 per aMW worth it? No.

Urbatsch said the water use engineering judgement of  $\frac{3}{4}$  gallon of water is too high. She said she doesn't boil that much water often, especially not twice a day. Urbatsch suggested cutting down on cook cycles a bit as that seems like a lot of water. She said she normally fries an egg or something volumetrically small.

- Livchak: It's 6.3 lbs. of water times 1.1 cycles per day. But cooking an egg generates a lot of waste heat in sauteing. It's hard to say what impacts are relative to boiling water.
- Baylon: Radiant losses from other kinds of cooking could be higher than a water boil and could result in higher savings.
- Livchak. The losses from the cooking vessel would be same.
- Baylon: But not from the burner.

### **Parking Lot**

Douglass listed the three parking lot issues:

1. 5% assumption on burner mismatch.
2. Use of large versus small burners.
3. Is estimating 418 cooking cycles with that much use realistic.

Smit asked the RTF if everyone is OK with the 5% assumption.

- Brown: It seems like an appropriate assumption, but 5% seems low. Maybe 10-15% is better?

- There were head nods for 5%.
- Livchak: Some resistance hobs have zones.

Geraghty asked if Proven means that we believe the numbers. He thought the results are highly uncertain, but noted that here we're saying savings are low, not cost effective, and not worth researching.

- L. Thomas: It's not about cost-effectiveness. The RTF is accepting the uncertainty, based on the cost of research to improve that. We think Proven fits the guidelines.

Baylon said 33 is the right answer if we're boiling water. He says he cooks a lot but does not use that much water. Baylon said the RTF is underestimating UES because the base case is not represented by the test, but the test does represent induction. He suggested we call it Proven and multiply savings by 1.5.

- Rob Marks, Snohomish County PUD: I think we're hung up on boiling water quantity. You could use multiple burners. The test procedure sounds like a lot of water, but I don't think it is.
- Douglass: To counter Baylon's point, the RBSA 1 metering study included ranges: n 63, 315 kWh (including oven). Based on that, I don't think we're too low on our use estimate.
- Anthony: What did utility members on the subcommittee say?
- Livchak: There was no question on the number of cycles.
- L. Thomas: The subcommittee supported moving forward with the measure, with no comments on assumptions. They wanted to keep resistance in, but it was later determined that was not feasible. This measure came from the Small and Rural Utilities subcommittee. They are interested in this measure.
- Brown: Boiling water could be a reasonable proxy for other use cases.

## **MOTION**

I, Gregory Brown, move that the RTF adopt the Residential Induction Cooktops and Ranges UES measure as presented, and: Set the Category as Proven, Set the Status at Active, Set the sunset date to January 30, 2030.

Ben Mabee, BPA, seconded.

## **Friendly Amendment**

Baylon proposed multiplying savings by 1.3.

- There was no second.

Geraghty agreed that the RTF is more likely to underestimate than overestimate, but thought that would be a small impact, especially as it's bounded by RBSA 1 energy use.

- Brown: Regardless of believing if we're over and/or under estimating, I think we should move away from arbitrary multipliers on our savings estimates.

Jagger wrote, the 120 V + battery powered units are not currently on ENERGY STAR, in the chat.

Vote on the motion. The motion carries (19 yes, 1 no, 2 abstain).

## LUNCH

### **Update DR Product: Level 2 AC Electric Vehicle Charger Demand Response**

**Josh Rushton, RTF CAT [Presentation](#)**

*Staff presented the update. After some questions focusing on how the workbook operates, the RTF approved the demand response product.*

Anthony asked how staff decided to narrow scope and shift use at night [Slide 5].

- Rushton: That's been the main application of interest in DR programs to date.

Baylon asked if staff have the n associated with the curves on [Slide 10].

- Rushton: Not offhand. But it's in the hundreds to thousands.
- Baylon: I was concerned it was more like 12.
- Rushton: No, much more.

C. Douglass stated that [Slide 13] says these devices can't be controlled at the secondary distribution level. He asked why not, wondering if utilities could know which homes are on each transformer.

- Rushton: It may be that. It may be more about negotiating with customers because someday they just won't be able to charge.

Baylon asked what technology utilities use to communicate with customers.

- Rushton: We'll get to that later. It's either the charger and WIFI or the vehicle telematics and cellular network.
- Baylon: Once you enroll, the utility has access to the schedule, regardless of the transformer. The limitation of a WIFI connection is that utilities don't know which transformer it's on.

Contreras asked why there is a 7kW magnitude on this graph and 1kW on another graph.

- Rushton: It's the coincidence factor. Not all chargers are on at the same time.

Anthony asked for further elaboration on "active" versus "passive" [Slide 16].

- Rushton: "Active" is when utilities send a message for every event and tells the unit when to stop. "Passive" is just messaging.
- Anthony: Is there less coincidence with active? Do the chargers know how much power is passing through? Can't the DR service know the exact amount of power draw at a given time?
- Rushton: Yes. They know.
- Anthony: Then the coincidence factor isn't an issue. For example, during an event, a DR aggregator can say how much power they're drawing and how much they can turn off.
- Rushton: Yes, that's doable. There are different program designs with constraints on how much and when you can curtail.

Baylon asked why vehicle-to-grid, where the battery feeds back to grid, is not considered here.

- Rushton: It wasn't at the top of our list.
- Smit: Someone could propose that as a new measure.
- Baylon: There's software out there to do that.

Brown pointed to customers beginning to charge at 8 or 9pm, wondering if that's customer choice, a default in app, or something else [Slide 25].

- Rushton: We don't know.
- C. Douglass: I agree. That line doesn't look like default human behavior. Is it always a cut-off/shift, or could it be throttling as well?
- Rushton: I've only seen cut-off, not throttle, during event. Maybe it's during make-up time afterwards.

Baylon asked if there are demographics in the Idaho National Lab study [Slide 29].

- Rushton: Not much. But there are no Teslas.
- Baylon: If you're looking at Idaho National Labs, most of the workers live in Idaho Falls. That's a lot of communicating.
- Rushton: It was bigger than their territory. It included a lot of Washington state, for example.

Baylon asked why [Slide 36] includes two applications other than connected charger versus telematics.

- Rushton: These are demonstrations of what resource planners could consider and expect.
- Baylon: Are there be other applications you could add within your constraints?
- Rushton: No, you could go to the workbook and modify the inputs yourself.

Douglass asked if [Slide 41] could be any kW, or if staff is looking for an average diversified kW.

- Rushton: It's the program average, not an individual charger.
- Baylon: Where does it come from?
- Rushton: It might be directly from the devices, or from AMI data.

Geraghty confirmed that solid lines are average charger draw while purple represent what happens to participants during an event. [Slide 42] He asked if opt out is responsible for the 50% reduction, saying that's a lot.

- Rushton: Good question. I don't know. They don't report opt outs of 50%, but they define it as an opt out equals any charging during event. But six of seven cars might not have been charging to begin with, so a 10% opt out could mean most charging cars opt out.

Baylon asked about the different aggregate for the Council's brown line.

- Rushton: That represents completely unmanaged charging behavior. We'll discuss it in upcoming slides. It's not intended to be a baseline.

Anthony questioned why [Slide 45] doesn't use blue to green or brown to green.

- Rushton: I'll get to that. We need to be able to modify to different time windows and we don't have data [Slide 46].
- Anthony: Why not use the ratio for blue to green or dashed blue?
- Rushton: It's just my assumption of what's going on. It makes sense that the scaling factor is relative to how many people are plugged in. Our hypothesis is that the dark blue is being managed by the customer at some level.

Brown clarified Anthony's point saying, from a utility IRP standpoint, the utility has the dark blue line data, but not the brown line. Brown concluded that the multiplier is applied to a metric they don't have.

- Rushton: That's in the workbook. We're providing it. It's the "how low can you go?"
- Anthony: I get that it's proportional to the number of vehicles. But the dark blue to dashed blue is the actual ratio. I don't understand your logic. The brown line is not the observed reality.
- Jerome: Blue is one utility. That will change across utilities and times.

Baylon asked what happens if they don't have the blue line at all.

- Rushton: Baseline is a different question. This is the "how low can you go?" question. There should be a shape. It should be proportional to load. But which shape? Is it the plug-in habits? The charging habits?
- Anthony: I don't get it. But that's OK.
- Rushton: This isn't the only way it can be done. but I prefer this logic. Should "how low can you go?" be affected by some natural shifting that already occurred? I don't think so.
- Paul Sklar, RTF CAT: Rushton is trying to take behavior out of the shape. If the green line were proportional to the blue line, it would vary by utility, based on behavior. That didn't seem right.

Douglass asked if the 3-10% opt out includes communication failures [Slide 51].

- Rushton: Yes.
- Douglass: What about automated opt-out? Does the car automatically insist on charging?
- Rushton: Yes, there are some battery longevity features. The app may keep the battery above 20%, for example.

Anthony said that BPA's resource planner is particularly interested in looking into costs of DR [Slide 53].

- Rushton: Noted.

Brown moved back to the blue line/brown line issue [Slide 45]. He offered a couple of ideas, starting with the obvious note that "brown" is the best color. He then hypothesized that, going forward, the brown line will exist less frequently because of TOU rates, messaging, managed charging, default mode in chargers and apps, and more. It made him think about the current practice baseline, saying the brown line would move closer to blue line.

Brown then proposed another idea for looking at DR items as a group. He stressed the need to be unbiased when considering EE but said that may not be the case with DR. Brown said for IRPs and program planning there may be value in being conservative in our estimates to avoid utilities falling short of targets.

- Rushton: Do you think our estimates are conservative? I'm trying to be unbiased. I got these estimates from PGE.
- Brown: Having the green line relative to brown line results in an aggressive estimate.
- Baylon: The brown line is not managed at all.
- Jerome: It's the Council's baseline, it doesn't mean it's your baseline. The first step in the tool is "enter your baseline."
- Anthony: The blue line is the actual program line. But maybe we want to estimate program effect at other hours. And you're using the brown line to determine this?
- Rushton: Yes. I'm using the brown line for a shape. It's unitless.
- Anthony: Your green line could be based on other shapes, like the actual program data.
- Rushton: The intent of the green line is to show that programs always get the same "how low can you go?" for a specific time window. It has the opt-out rate baked in.
- Anthony: I still disagree.

Douglass clarified that Rushton is saying the brown line is our estimate of when people plug in, while the blue line includes some delayed charging. He said it made sense to him to use the brown line.

- Jerome: I think I understand. It's clear to me what the intention is. The blue line will change from utility to utility, and from hour to hour. The brown line stays constant.

## **MOTION**

I, Mark Jerome, move that the RTF approves the Residential Level 2 Electric Vehicle Charger Demand Response Product workbook, as presented, and set the review date of January 31, 2029.

Geraghty seconded.

Brown asked for a description of how a utility would plug in their baseline, wondering how that plays out.

- Rushton: If you enter PGE's timing and their baseline, you'd get the results from their evaluation.

Vote on the motion. The motion carries (19 yes, 0 no, 5 abstain)

L. Thomas said staff will watch this and may bring it back before the sunset date if needed.

## **BREAK**

**RTF Orientation: REEDR**

**Logan Douglass, RTF CAT, Christian Douglass, RTF Vice Chair [Presentation](#)**

*Staff presented an orientation on the Residential Energy Efficiency and Demand Response (REEDR) tool which is used to support building simulation modeling for residential homes at the RTF.*

Grant asked if staff ever consider adapting REEDR for commercial, aka CEEDR [Slide 16].

- C. Douglas: We thought about it, but commercial buildings are more complex. Also, there are already many more tools available for commercial buildings.

Grant addressed AMY data [Slide 17] saying creating all of the data that goes into the building simulation a huge undertaking. He asked if staff is making those files public. He also asked for a demo on that process.

- L. Douglass: Yes, we're planning to thoroughly document the process.
- C. Douglass: One of the national labs created a Python script called "DIYEPW." It does most of this in an automated way. It's not perfect but does a lot of the legwork. These files are embedded in REEDR. We could also post them individually on the website.
- Grant: If it's already embedded in REEDR, there's no need to spend resources to extract them, but it would be neat to see.
- C. Douglass: Look for the "Weather" folder in REEDR. There's TMY, but they don't have extreme weather conditions by definition. The AMYs do. That's useful.

Geraghty asked what REEDR inputs and weather files staff are making up.

- C. Douglass: The Python script doesn't bring solar data. We need to get that from the NREL solar database. It's actual satellite data.

Anthony asked if staff used any calibration adjustments to get the results on [Slide 21].

- C. Douglass: We did very little "knob turning" but there was some. Even out of the box, the results were pretty good. But we didn't assume any natural ventilation to start. So, we added in some window openings because we saw cooling in mild weather in REEDR but not in HEMS. This improved the fit. We didn't turn knobs to make individual sites look good. We also turned knobs to get the right compressor versus resistance balance for heat pumps.

Grant asked if staff considered using this for savings shapes [Slide 27].

- David Bopp, RTF CAT: We used REEDR for retro-commissioning, heat pump conversions, and upgrades.
- Grant: That's a good use case for when the savings shape is different than the load shape. Also, you calibrated to HEMS, but when you use REEDR, you're using a prototypical building. How do you develop the prototype for a measure?
- C. Douglass: That's to be determined. First, we need to complete the work that we're describing. In SEEM we started with prototypes but moved to modeling all RBSA homes. For HEMS, we need to consider weighting. We could use sample weights or use subcommittee insight to help us adjust weights.
- Grant: Okay, so you're modeling individual homes. That's a lot of data and processing.

Grant wondered about interest in REEDR outside of the NW. He said this is an amazing tool, pointing to the ability to batch model runs. Grant asked if other jurisdictions have reached out.

- C. Douglass: At least one consulting firm has used this. L. Douglass and I did a project for a client modeling technologies across the whole U.S. It's on GitHub, so anyone can access it. It's free. But the modeling community is very small.
- Grant: I was thinking about getting state funding for tool development, beyond RTF funding.

Smit ended the meeting at 4:00pm.

### Voting Record: January 21, 2026

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)	
<b>Motion:</b> Approve the minutes from the December 9, 2025 RTF meeting. (Baylon/Douglass)	24	0	0	Yes	83%	100%	24
<b>Motion:</b> Approve the agenda for the January 26, 2026 RTF meeting. (Miller/Chase)	24	0	0	Yes	83%	100%	24
<b>Motion:</b> Set the sunset date for the Residential Heat Pump Water Heaters and Consumer Heat Pump Water Heaters in Commercial Application UESs to May 31, 2026 (Baylon/Miller)	23	0	0	Yes	79%	100%	23
<b>Motion:</b> Adopt the Residential Induction Cooktops and Ranges UES measure as presented, and: -Set the Category as Proven -Set the Status at Active -Set the sunset date to January 30, 2030. (Brown/Mabee)	19	1	2	Yes	66%	95%	22
<b>Motion:</b> Approves the Residential Level 2 Electric Vehicle Charger Demand Response Product workbook, as presented, and set the review date of January 31, 2029. (Jerome/Geraghty)	19	0	5	Yes	66%	100%	24

**January 21, 2026**  
**Meeting Attendance**

\* Designates Voting Member

<b>Name</b>	<b>Affiliation</b>
Jamie Anthony*	BPA
Sofya Atitsogbe	WA UTC
Landon Barber*	Idaho Power
Lynea Baudino	Seattle City Light
David Baylon*	Independent
Brittney Breen	Energy Trust of Oregon
David Bopp	RTF Contract Analyst
Frank Brown	BPA
Gregory Brown*	Tierra Resource Consultants
Kyle Chase*	Jefferson PUD
Noe Contreras*	NEEA
Rebecca Cottrell	Idaho PUC
Bob Davis*	independent
Joshua Dennis	WA UTC
Christian Douglass*	RTF Vice Chair
Logan Douglass	RTF Contract Analyst
Ryan Firestone	RTF Contract Analyst
Wesley Franks	WA UTC
Adam Gage	NEEA
Lisa Gartland*	ODOE
William Gehrke	NEEA
Kevin Geraghty*	independent
Jackie Goss	Energy Trust of Oregon
Andrew Grant*	Cadmus
Connor Grossman	CLEARresult
Wylie Hampson	NEEA
Michael Hoch*	Energy Trust of Oregon
Zachary Horvath	Cadmus
Aaron Ingle	NEEA
Masumi Izawa	BPA
David Jagger	Energy Solutions
Mattias Järvegren*	Clallum PUD
Mark Jerome*	CLEARresult
Mitt Jones	independent
Phillip Kelsven*	BPA
Erin Kempster	Power Takeoff

Leah Kim	Tacoma Power
Rick Knori*	Lower Valley Electric
Melissa Kosla	Acadis Consulting
Stephanie Kruse	ODOE
Ben Larson	Larson Energy Research
Jennifer Light	NPWCC
Denis Livchak	RTF Contract Analyst
Ben Mabee*	BPA
Bruce Manclark*	Earth Advantage
Rob Marks*	Snohomish County PUD
Ryan Miles	BPA
Eric Miller*	Independent
Ken Morgan	Gensco
Lauren Mullen	BrightLine Group
Andi Nix*	Energy Trust of Oregon
Nick O'Neil*	Energy 350
Eric Olson	NEEA
Brian Owens	CLEAResult
Craig Patterson	independent
Andrew Paul*	Avista Corp
Joe Prijyanonda	ICF International
Ronald Ramey	Energy Solutions
Jes Rivas*	Swift Strategy
Emily Rosenbloom	NEEA
Tim Runyan	NEEA
Josh Rushton	RTF Contract Analyst
Kenji Spielman	Energy Trust of Oregon
Paul Sklar	RTF Contract Analyst
Kevin Smit*	RTF Chair
John Stalnaker	BPA
Poppy Storm	2050 Institute
Samantha Taylor	CLEAResult
Adam Thomas	Acadis Consulting
Laura Thomas	RTF Manager
Eva Urbatsch*	Puget Sound Energy
Garett Valenzuela	CPlusC
Danielle Walker	BrightLine Group
Jim White*	Chelan County PUD
Sarah Widder	NEEA
Jim Williams	independent

