July 21, 2026
RTF Meeting Minutes

Welcome, Agenda Review and Meeting Minutes
Kevin Smit, RTF Chair, began the meeting at 9:00. Christian Douglass, RTF Vice Chair, took attendance counting 22 voting members present.

Smit reviewed the day's agenda, likening it to a prix fixe menu complete with appetizers, main dish, and dessert. Douglass moved to approve the agenda. Andrew Grant, Cadmus, seconded. The agenda was adopted unanimously.

David Baylon, independent, moved to adopt the minutes from the June 23-24 meeting. Rob Marks, Snohomish County PUD, seconded. The minutes were adopted unanimously.

Management Update
Laura Thomas, RTF Manager Presentation
Staff presented updates, including plans to add more contract analysts while streamlining roles.

Baylon asked about the plan for five analysts [Slide 8].
- Laura Thomas, RTF Manager: No. We will have between seven to nine analysts spread across five separate roles.
- Smit: This should hopefully streamline CAT responsibilities. We can have some people work on specific tasks while others do it all.

Sunset Date Extension: Forced Circulation Generator Engine Block Heaters for Nonresidential Standby Generators
Laura Thomas, RTF Manager Presentation
Staff presented the case for extension. The RTF approved the extension.

Baylon asked if the 5aMW includes heat pumps [Slide 4].
- Douglass: No. That is a separate measure.

MOTION
I, Eric Miller, independent, move that the RTF extend the sunset date of the Forced Circulation Engine Block Heaters for Nonresidential Standby Generators to January 31, 2027.
Ben Mabee, BPA, seconded.

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

Sunset Date Extension: Vehicle Engine Block Heater Controls
Laura Thomas, RTF Manager Presentation
After hearing the presentation, the RTF voted to extend the sunset date.

Grant suggested looking at RBSA to see if this equipment shows up in heating zone 1 [Slide 3], noting that the current measure wasn't applicable to heating zone 1 in past Plans.

Jamie Anthony, BPA, noted the requirement for equipment to be hard-wired wondering what drives that decision.

- Douglass: Avista research found that extension cords get driven over, leading to more failures. So, it's a measure life concern.
- Anthony: I'd like that reevaluated.
- Thomas: We're talking to Bonneville staff about this. There's lots of interest here.

MOTION
I, Jamie Anthony, move that the RTF extend the sunset date of the Vehicle Engine Block Heater Controls to October 31, 2026.
Grant seconded.

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

Smit asked the RTF for data, noting that data for this measure was particularly challenging to find for the 2021 Plan.

Sunset Date Extension: Residential Heat Pump Water Heaters and Consumer Heat Pump Water Heaters in Commercial Applications
Laura Thomas, RTF Manager Presentation
The RTF approved the sunset date extension.

MOTION
I, Dave Baylon, move that the RTF extend the sunset date of the Residential Heat Pump Water Heaters UES and the Consumer Heat Pump Water Heter in Commercial Applications UES to August 31, 2026.
Jerome seconded.

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

Overview of End Use Load Metering Study
Ben Spearing, NEEA Presentation
NEEA Staff presented details on the End Use Load Metering (EULR) studies in residential and commercial buildings. Discussion centered around what technology were metered, the richness of the weather data, and what further work is to be done.

Grant asked if there is an easy way to get a list of end-uses metered, by sector [Slide 5].

- Ben Spearing, NEEA: I'll go over that. But yes, there is site information and a way to see that online.

Grant addressed sampling asking if distribution by heating zone or cooling zone was considered [Slide 9].

- Spearing: We considered that, but we mostly wanted good regional distribution. You can parse out heating and cooling zone.

Douglass noted the long duration time frame around this work. He called this data set rich with lots of extreme weather events naming the 2021 heat dome, the 2024 MLK Jr. event, and more.

- Spearing: Right, in a lot of cases we have normalized and straight data.

Kevin Geraghty, independent, acknowledged that the RBSA allows analysts to line up home characteristics. He asked about commercial.

- Spearing: There was not as much data for the commercial buildings

Eva Urbatsch, PSE, asked if there were any gas buildings in the set.

- Spearing: No, this was electric metering only.
- Aaron James, NEEA: We did a CBSA-type survey for CEMS, so we do have characteristic data on almost all of the buildings. And for Gas buildings, there was no gas metering, but a large number of the buildings in the sample have gas heat. We just didn't meter it.

Baylon called retail and offices a large and interesting part of the commercial segment but wondered about schools and other building types.

- Spearing: That was out of scope and budget. So far the EULR working group and the steering committee determined that two building types would be within budget, and those were the two most significant.

Grant saw that the weather is normalized to TMYx, noting that this is a different TMYx than the RTF uses [Slide 13].

- Douglass: Yes, generally we use the raw data and do our own normalization.
- Thomas: To date we've used version 7 of the HEMS data. HEMS is now at version 10. We'll use V10 going forward.

Grant stated that the data on [Slide 15] is averaged across the year. He asked about more extreme seasons, like looking at winter versus summer.

- Thomas: The more granular the look the more distinct the differences.
- Douglass: That's right. This result makes sense. If you're home, you keep the thermostat more constant, so there is less morning ramping.
- Baylon: The reduced AM peak looks like someone fixed the setback response.
- Spearing: We don't know if people changed behavior, but this is the impact.

Geraghty thought there would be a pretty significant differences in ductless heat pumps pre versus post pandemic [Slide 16].

- There was agreement in the room to this comment.
- Spearing: Yes, and it's interesting that things didn't change much from pandemic to post pandemic.

Grant asked why the ductless heat pump graph shows higher consumption than air source heat pumps.

- David Bopp, RTF CAT: There's probably a mix of single heads and multi-heads.
- James: That's right, it's a mix. Sometimes all heating is ductless heat pumps, sometimes it's not.

Baylon asked if the lines on the graph are a composite of ductless heat pumps plus other heating.

- James: This graph is just the ductless heat pump circuit.
- Douglass: One caution: ducted homes are very homogenous, but ductless heat pump homes are snowflakes with different combinations of systems. It's harder to take things away from ductless heat pump data.
- Baylon: Are these mostly zonal homes?
- Douglass: There are all kinds of stuff, wood, gas, and propane in addition to ductless heat pumps.
- Geraghty: This is impossible to interpret. You need to dig deeper into the home characteristics.
- Josh Rushton, RTF CAT: I agree. The confidence bounds might be misleading. The sample size is homes times days: days is large, but the number of homes is not.
- Spearing: Yes, this is mostly intended to start conversations.

Thomas asked if the central HVAC shapes on [Slide 19] are averaged across whole year.

- Spearing: Yes.

Noe Contreras, NEEA, asked why AC use is higher with a heat pump?

- Thomas: These are for the whole year. Cooling usually has a lower number of days annually compared to heating. The heat pump graph included winter heating.

Anthony asked if the CEMS data shown is normalized by square footage [Slide 24].

- James: Yes.

Grant asked if the control systems for commercial buildings are known [Slide 25].

- Spearing: Yes, that's in the data. It's a mix.

Baylon wondered how, in an office, you can determine what kind of heating is inside the boxes.

- James: This is what was on the circuit, metered at the panel. If there are multiple things on the circuit, you get it all.

- Baylon: I'm wondering if the electric resistance load is electric resistance or auxiliary load in the VAV system.
- Spearing: This would be all of it. Nothing is end-use specific.

Nick O'Neil, Energy 350, asked if the temperature data is normalized TMYx.

- Spearing: Yes.
- O'Neil: Is this heating used for conditioning or ventilation.
- Spearing: We don't usually know that. In some cases, you estimate from the data, for example a rooftop unit.
- Rushton: Presumably you could do some of that analysis with minute level data.

Marks explained that fans run constantly with VAVs, so loads can be flat but with minute data you can see it stage on and off pretty well.

Baylon asked if all CEMS graphs on [Slide 26] are for all CEMS buildings.

- Spearing: Yes, all buildings with the end-use of interest.

Grant asked about protocols to look for Covid impacts. He wondered about follow up surveys and if the occupancy changed.

- Spearing: We did not do follow up surveys.
- James: We didn't track occupancy. CEMS was behind HEMS so almost all buildings were recruited post-Covid.

Grant asked about the split between office and retail [Slide 34].

- Spearing: It's about 50/50.

Grant wondered if there are any noticeable differences between the two.

- James: I haven't looked at the commercial heat pumps yet.

Geraghty asked if heat pump circuits include electric resistance backup.

- Spearing: Yes.

Anthony addressed site specific data for commercial sites wondering if there are any schematics to understand what was really metered [Slide 36].

- Spearing: You'll be able to see the characteristic data for the site, but no schematics. Also, sometimes labels look wrong based on data behavior. It's very time consuming for us to dig through specific circuits and conduct forensics. We do it as people bring something up.
- Anthony: I'm interested in the layout of the building. Is anything like that provided?
- Spearing: No.
- Anthony: So, if a commercial site is heated with a heat pump do we get all of the heat pumps for the site or just one?
- Spearing: All.

Geraghty asked if there are additional resources to tap into when someone asks you to look into a circuit.

- Spearing: It's just the data we've discussed
- James: The one-minute data is the main resource. Also, I've been in the data more than anyone, and that helps with familiarity.
- Thomas: We've been working closely with the NEEA team to make sure we're not duplicating efforts. They've been good about documenting what assumptions they're making and transparency. We haven't gone into CEMS at all.

Grant pointed to the shear level of granularity for the one-minute data, wondering if NEEA explored using AI to help.

- James: Yes, to some extent. AI isn't perfect. I have been looking into how I can make better use of it, but in the meantime, I work on it manually.
- Douglass: I know AI will confidently give you data that's not that good. You'd need some validation studies first.
- Smit: So, stick with AJ (Aaron James) and not AI (Artificial Intelligence).

James admitted that the data is not perfect, saying there are warts [Slide 38]. He wished for more budget and more time but insisted that this is real data that doesn't exist elsewhere, adding that the entire region can access to it. James asked for feedback on the data, saying there's a lot that can be done with it.

Grant said that the RTF and Council still use ELCAP. He asked if there has been any benchmarking of the new data to ELCAP to see how end-use or whole building consumption has changed. Grant said this could help gage urgency for updating to the new data source.

- Thomas: We're starting to do that. When we develop new shapes in HEMS, we compare them to the old shape. We haven't done a lot of this, yet. We're working with NEEA to maximize resources across the region. But this is on our radar.
- James: In 2012-14, we had the RBSA metering project with end-use metering in 100 homes. I compared some of that with ELCAP. In a nutshell, cooling went up a bit, heating went down a bit.
- Grant: Given shear data size the cost of processing and storing will be very high. Beware, Laura!

Thomas explained that staff are working to bring HEMS v10 into REEDR. She said doing this with the version 7 data yielded a ton of information. Thomas said staff will try to bring our findings back to the RTF.

- Grant: Will there be subcommittee for that effort? Will you do annualized research? I'd like to talk through the process with you. It fascinates me.
- Thomas: Yes. We have a modeling subcommittee. We'll use them but the timeline hasn't been determined yet.
- Douglass: We looked at if the model is right on average and how it looks year by year. In a lot of cases, the year-by-year looks good. It would be good to look at days and weeks as well. That level of granularity is hard to do, but useful.

BREAK

Update Standard Protocol: New Homes Part 1
Ryan Firestone, RTF Contract Analyst (CAT) Presentation
Staff presented the proposed updates to the New Homes Standard Protocol. After discussing points like allowing non-stacked townhomes and how to approach dual-fuel equipment, the RTF approved the updates to the measure.

Baylon asked about wanting more UESs for new homes [Slide 5].

- Ryan Firestone, RTF CAT: It to better identify above-code home components (prescriptive) rather than whole-home protocol.

Baylon insisted that fuel choice is an additional category because it affects the number of credits required [Slide 13]. He added that the performance track has zero traction at this point.

- Firestone: Good points. Those will come up again later.

Douglass asked if "ERI < 61" means that a 2026 code home uses 61% of the energy of a 2026 home [Slide 15]. He then asked if people believe that's literally true.

- Firestone: Yes, that's what it means.
- Grant: IECC 2006 was very different from current code so it's not impossible.
- Douglass: I guess lighting has changed a lot, and some other stuff too. But that still seems like a big difference.
- Tess Studley, NEEA: To be clear, ERI = 61 means a 39% reduction.
- Poppy Storm, 2050 Institute: The 2024 residential code will update the performance path in WA. The ERI threshold will be a lot lower than 61.

Kevin Watier, Independent, asked if [Slide 19] means an individual dwelling unit could be eligible independent of the entire building.

- Firestone: Yes.
- Watier: Then why do we limit number of units? Townhouses might exceed this cap. Could we instead define units as ground-to-attic to avoid excluding townhouses?
- Firestone: This cap was just for consistency with home-type definition used in other RTF products. Let's put that in the parking lot.

Grant asked if [Slide 29] excludes dual-fuel heat pumps.

- Firestone: No. We'll see how that works in a moment.

Manclark said the last Oregon code compliance study found lots of above-code home components [Slide 31]. He thought a big difference between program and non-program homes comes from things like commissioning the ventilation system (or not). Manclark thought that would be very hard to adjust for.

- Firestone: Right. We've seen data suggesting that non-program homes tend to consume less energy than you'd expect based on code alone. The adjustment factors are meant to account for that.

Baylon stated that adjustment factors come from metered billing data on non-program homes asking if staff had access to that kind of data [Slide 32].

- Firestone: Yes. From two evaluations.
- Jackie Goss, Energy Trust of Oregon: Our evaluation was based on billing data, not metered data.

Baylon stated that the Washington code technically allows gas furnaces, and they come up in evaluations (about 15%) [Slide 33].

- Firestone: We're just excluding them from the protocol. There are currently no gas programs in WA.
- Bruce Manclark, Earth Advantage: WA allows gas back-up heat pumps, so that might explain some of the prevalence in those evaluations. Perhaps they get set up with high cross-over temperatures? Also, if you did an electric evaluation on those homes and didn't consider gas, they'd look very efficient.

Grant asked how [Slide 36] works for a home with mixed fuel types.

- Firestone: We simulate the home for the electric side, with the gas water heater specified to water heater kWh = 0. And we apply the electric adjustment factor to the result. For the gas side, we apply a gas adjustment factor to modelled water heater therms.

Grant stated that adjustment factors essentially just know about HVAC [Slide 37]. He guessed that we'll never really know how far off we are on adjustments for other end uses.

- Firestone: I agree. This just seems like the best practical option.

Grant confirmed that [Slide 39] basically says that the Washington code is so efficient that it limits program activity.

- Firestone: Right.

Jes Rivas, Swift Strategy, admitted to having trouble tracking at what level the factors apply pointing specifically to compliance factor versus adjustment factor versus participation rate [Slide 41].

- Firestone: The participation rates are at the whole home level where you pick a main heating fuel type, the compliance factor applies to the ERI model, and the adjustment factors apply separately to each fuel type in a given home.
- Rivas: That seems like false precision. I would consider a simplification.
- Firestone: Let's put that in the parking lot.

Bob Davis, independent, asked if staff always get a positive savings number [Slide 42].

- Firestone: No.

- Davis: Good.

LUNCH

Update Standard Protocol: New Homes Part 2
Ryan Firestone, RTF CAT Presentation

Baylon pointed to the logic of simulations for water heating where the number of occupants equals the number of bedrooms plus one [Slide 44]. He said this model results in about twice the hot water usage than what is realistic.

- Firestone: That kind of error is what the adjustment factor is trying to account for. Our protocol provides the adjustment factors.
- Baylon: You need a base case assumption to get that factor. You need to do a survey.
- Firestone: We might see different adjustment factors if an evaluation is done in WA. Updated evaluations may yield different adjustment factors elsewhere.

Grant cautioned that most codes will be updated in the 2026-27-time frame, so code uncertainty seems like a big factor [Slide 54].

- Firestone: Protocol says to use "current" code, so that gets updated with code cycles on the program side. However, our adjustment factors may become out of date with new codes until they are updated.
- Grant: So, a program person would enter in the compliance factors as well, based on code at the time?
- Firestone: Right. Adjustment factors and participation rates are the parts that are locked in within the protocol itself.

Manclark stated that the Oregon code going into effect later this year will increase dual-fuel heat pumps a lot. He worried that the method may be too squishy on dual-fuel equipment. [Slide 55].

- Firestone: Ideally an evaluation would look at both fuel types for this reason.
- Thomas: We have to look at dual fuel equipment soon. The Council says fuel switching is not conservation.
- Contreras: Recommended calling it a dual fuel system and not a heat pump.

Grant asked how staff arrived at negative savings estimates [Slide 57].

- Firestone: It's from the adjustment factors. If modelled savings suggest 10% savings, and the adjustment factors differ by 15 percentage points, you'll get a negative savings estimate.

Baylon asked if NEEA, or anyone else, is taking the lead on developing ex-post adjustment factors to support this program [Slide 59].

- Firestone: I think the Oregon code compliance study included some EUI data.
- Sarah Widder, NEEA: I do imagine that being included in the bullet about "accuracy of ERI vs…"

Grant asked if pursuing a new homes UES path is part of the recommendation [Slide 60].

- Firestone: That's not included here. We'd need direction from the region.
- Thomas: We also need statements of interest from the region before we spend a bunch of time on development. So, that recommendation needs to go through the formal New Measure Proposal process.
- Anthony: I appreciate the resource trade-off. I think BPA would be at least somewhat interested, but hopefully we can mitigate the resource spend. I'd like to help try to find shortcuts for that if we get to that stage.

Parking Lot [Slide 61]

Extending eligibility to any home like townhomes in blocks of six, that are not stacked.

- Baylon: The main trigger for commercial versus residential code in WA is whether the door goes outside.
- Firestone to Watier: Kevin, how would you word this?
- Watier: There is a provision in the state code for townhomes. So, I'd just word it as "townhomes are eligible."
- Baylon: And it should apply to all the states.
- Donald MacOdrum, TRC Companies: The Oregon code allows some stacked townhome units in the residential code.
- Smit: It sounds like we have enough agreement to add wording to proposed motion.
- The following words were added to the Motion "Eligibility: Exclude stacked multifamily units; include townhomes regardless of number of units"

Should the RTF simplify the various factors (especially participation factor) to avoid users having to select primary fuel type (esp. for dual-fuel systems).

- Firestone: We could also just clarify how to select the primary fuel for a dual-fuel HP.
- Watier: Whether to pick electric or gas should depend on the switch-over temp.
- Douglass: I'm fine with the two adjustment factors, but we need a clear decision rule around primary fuel designation. I'd say dual-fuel units use gas-program participation rates.
- Firestone: That sounds reasonable.
- The following words were added to motion: "Dual-fuel heating systems use gas program participation rates"

MOTION

I, Christian Douglass, move to approve updates to the New Homes Standard Protocol as presented with the following changes: Eligibility: exclude stacked multi-family units. Include townhomes regardless of number of units. Dual fuel heating systems: use the gas program participation rates and Change the Status from "Under Review" to "Active" Set the sunset date to July 31, 2031.
Miller seconded.

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

Discussion: Level 2 EV Chargers
Denis Livchak, RTF CAT Presentation
Staff sought direction from the RTF on how to move forward with updating the Level 2 EV chargers UES for the September RTF meeting. The RTF compared minimal savings with the importance of the measure for DR purposes. General guidance from the RTF was to focus on a light update continuing to align with ENERGY STAR and consider potential opportunity for upgrading from a Level 1 to Level 2 charger.

Anthony stated that the 7 and 48 kWh/y sound familiar but was surprised by 48 aMW [Slide 7]. He asked how that was derived.

- Douglass: That's from the 9th Plan, assuming a 20-year forecast for EV adoption. Today's potential is much lower. There's a lot of uncertainty in the EV adoption forecast.
- Thomas: There are Oregon and Washington policies to ban gas combustion engine vehicles likely driving numbers too.

Miller recalled that the charger is connected to a car with a computer. He asked if the car's computer impacts when it is in idle versus standby.

- Livchak: When the car is idle the vehicle is connected. When on standby the vehicle is not. That's straightforward.
- Thomas: The car can determine when scheduling happens, but not duration.

Grant confirmed that the 47aMW is just residential potential.

- Livchak: We assume that almost 90% of chargers are in residential locations.

Anthony stated that the current practice impacts savings and potential [Slide 8].

- Douglass: We took the best numbers we had for the Plan. The RTF charges forward, even after the Plan work has been done.
- Anthony: I saw the technical potential on the "proposed" side of the slide.
- Thomas: Yes. But that just intends to reflect the Plan potential.

Rivas asked about a process for current practice being too high to consider if we should stick to the measure [Slide 9].

- Thomas: It contributes to the RTF's decision. In some cases, we've deactivated measures when current practice gets high enough. But here, we expect a lot of chargers to come into the region. Plus, it gives us an opportunity to clarify what we think the savings are. EV charging is the biggest DR opportunity.
- Rivas: The DR thing is separate. We shouldn't consider that for this measure. A large part of what drives adoption is policy.
- Thomas: I think we should consider DR here. The baseline is not code here.

Contreras noticed that the slides are backwards looking with existing data. He asked about future trends.

- Thomas: It's hard to forecast charger uptake from EV sales data. We hear a lot of people only use Level 1 charging. I don't know that we can tie Level 2 charging to the number of EV sold in the region.
- Contreras: Organizations like Global Mobility forecast things like this.
- Smit: If we proceed with this measure, we could look at that data source.

Watier recalled hearing that a market search didn't find a non-ENERGY STAR charger to buy.

- Livchak: I could find some on Amazon, but I also searched for most-popular products, and they're all ENERGY STAR®.
- Watier: That's market transformation. Also, the assumption of one hour of charging per night is a myth. As range gets larger, you won't need to plug in every day. Also, many cars use the Level 1 charger that came with car. Other cars in Multifamily homes use high speed chargers.
- Thomas: Today's intent is to get to a spec that the RTF wants. That's it. We haven't looked at everything yet. If we have a spec, we can go through the effort, but we won't if you all don't think it's worth it.
- Chase: I took this off of our portfolio because $20 doesn't move the needle relative to admin costs. Also, Level 1 is sufficient for lots of people. Maybe there's savings associated with using Level 1 versus Level 2?

Rivas asked if Thomas is saying that at some point, market penetration is so high that the region moves on but is also saying the opportunity is large.

- Thomas: There's nothing in the guidelines on this. It's RTF judgement. Even with high current practice, there's big potential. Maybe it makes sense to move forward with this. Maybe it doesn't. We're having the discussion of "is it worth our time?" now.
- Rivas: We don't worry about free ridership, right? We just consider current practice?
- Thomas: Yes. We don't know what current practice is (between 50% and 90%) and we don't know how it will change going forward.

Baylon asked if there is an option to drop this all together [Slide 16].

- Smit: Yes, that's the feedback we're looking for.
- Anthony: I like the current spec. It's on the books if someone wants it. Going further doesn't make sense. That's more work for like a $2 incentive. That doesn't make sense.
- Livchak: There was a newer ENERGY STAR spec being considered. Most products would qualify.
- Douglass: I did some internet searching. I'm hard pressed to find something for sale that's not ENERGY STAR . I think we either get rid of the measure or have a higher spec.

Geraghty didn't understand how the chargers consume any energy when the car is unplugged. He agreed that Level 2 chargers are needed for DR. Geraghty stated that the RTF knows the savings are wrong but said so what. He thought it would be fine to look the other way and provide a nudge for Level 2 chargers.

- Marks: I agree. This is a minor nudge.

- Thomas: Puget Sound Energy uses the measure to promote DR. And we see this elsewhere. It's an easy way to get in the door with the customer.

Rivas spoke to Geraghty's earlier concern saying many appliances draw power in standby. She was fine keeping the measure but cautioned that DR opportunities for Level 2 charging are changing/diminishing.

Grant asked if the RTF would update the current practice if we update the measure.

- Thomas: Yes.

Baylon advocated for dropping the measure. He thought it was fine if programs want to use the measure as a gateway to Level 2 but felt the RTF shouldn't provide the number.

- Marks: I agree. But the ENERGY STAR spec is free and cheap. It helps with DR.
- Anthony: It's 48 aMW.
- Grant: It's 48 aMW at 48 kWh savings. The updated savings and potential would be less.

Thomas said she is hearing a direction from the RTF to keep the ENERGY STAR spec and update current practice. She proposed perhaps looking into Level 1 versus Level 2 chargers.

BREAK

Draft 2027 RTF Work Plan
Laura Thomas, RTF Manager Presentation
Staff presented the Draft 2027 RTF Work Plan, which kicked off the 30-day comment period until August 21st. The RTF discussed the meaning of regional coordination, the need for a Regional Potential number, and the proposed change to the RTF meeting day.

Grant noted that once the Power Plan is approved the RTF will update our measures and ProCost [Slide 16]. He asked if that is accounted for.

- Thomas: Yes, it's in the workbook. Maybe under the "standardization" category. Cost estimates are significant and based on cost last time around.

Baylon thought that the "regional coordination" number is not big enough to analyze EULR data [Slide 18].

- Thomas: No, that's just for time helping the region design the study, not time the CAT spends analyzing the data for measure work.
- Baylon: This doesn't sound like enough money to get as far as we can with this data.
- Thomas: This is just for participation in working groups and not for regional data analysis. With the new CAT structure, hopefully this is a single person. But a lot of the analysis time would be covered by other expense categories.
- Smit: We don't have any huge project to just analyze the data. We need something specific to analyze, so we do that as part of a measure project.
- Thomas: There's some budget to look at data outside of measures, but most of it would be in the measure work.

- Smit: We are working closely with NEEA. They have budget to do analysis, too. We can provide recommendations for them.
- Thomas: And whatever NEEA doesn't take on gives us ideas on what we could take on.

Grant spoke about regional potential and supply curve work thinking it might be good to put some effort into standardizing estimates of regional potential [Slide 22].

- Anthony: I think it would be helpful to understand, at a high level, how much potential there is.
- Grant: I think, before the RTF spends money on a measure, we should know what the potential is and therefore, how much RTF effort is worth.
- Anthony: For example, we're interested in things that achieve a lot of savings.
- Douglass: That could be part of new measure scoping
- Thomas: That's on the plan for next year.

Grant asked when two-day meetings be held if the RTF meeting day moved to Thursdays.

- Thomas: Wednesday and Thursday.

Discussion UES: Centrally Ducted Heat Pumps with Back Up Limitation
David Bopp, RTF CAT Presentation
Staff presented a summary of their thoughts from the presentations on Heat Pumps at the June RTF meeting. The RTF discussed findings in NY and Maine as compared to the Pacific Northwest and how to compensate. Staff also discussed with the RTF the various heat pump metrics and a proposal for how to move forward with the new measure specification regarding equipment.

Manclark emphasized that the 3rd bullet on [Slide 12] is important and scary for contractors.

Grant thought that [Slide 13] seems like a package measure with weatherization and heat pump installation at the same time. He asked if it's an issue to have multiple measures that tackle the same issue: like weatherization and heat pumps separate, and together.

- David Bopp, RTF CAT: We've done this in the past and specified that the program has to pick one path, not both.
- Thomas: I've heard other interest in a package measure like Grant is describing.

Manclark said that Maine and New York have ductwork in basement, but things are different here [Slide 14]. He thought the duct multiplier could be 50% adding that Manual J is more complicated here for this reason.

- Baylon: It's not unreasonable to assume that heat pump support would include a duct blaster test.
- Bopp: Yes, our proposed spec would require checking the ducts.

Christopher Dymond, NEEA, said electric resistance sizing encourages proper sizing [Slide 18] and we're trying to put some skin in the game to make contractors think about this and not just put in unlimited electric resistance.

Baylon asked where the 2.9 droop on [Slide 21] came from.

- Bopp: Discussions along the way. Everyone is capable of meeting 2.9.
- Baylon. So why not 3.9?
- Dymond: It's from Mitsubishi. They chose 2.9. Droop is implemented by some manufacturers but not all. If customer behavior is tapping the button to raise the temperature and they bump it up three degrees, that can bring on 10 kW. That's not great. But other variables in the chart, like recovery rate, might be more meaningful.

Anthony asked about verifying in a program.

- Bopp: We'll talk about that later.

Baylon called [Slide 24] one of the best he has ever seen.

Dymond said there is directional evidence that higher HSPF results in higher savings [Slide 29]. He admitted that the BPA study did not find that but plenty of other studies have.

- Thomas: But we don't differentiate if it's only impacting measure by +/-10%.
- Rushton to Dymond: Are you referring to lab testing or field study?
- Dymond: Lab testing.

Dymond stated that the maintenance capacity conclusion on [Slide 32] is because of choosing an HSPF of 8.5.

- Bopp: Regardless, almost all of the market hits a maintenance capacity of 65%.

Baylon asked if Capacity Maintenance is at 5°F.

- Bopp: Yes.
- Baylon: Then I agree. Why not just check whether capacity at design is what you need?

Anthony thought the 8.5 in the measure spec makes it hard to read [Slide 34].

- Bopp: HSPF > 8.5 is not a perfect proxy for variable-speed, inverter-driven equipment. It's the best proxy I have for filtering the database, but programs should explicitly require variable-speed inverter-driven (no need for a proxy!).

Douglass noted that the AHRI looks similar, asking if single speed equipment is improving.

- Bopp: We're getting units that can't ramp down. There is also a refrigerant change.
- Dymond: There's more capacity and the refrigerant change happened at the same time.

Manclark stated that COPs are always box COPs and not delivered COPs. He thought that, even with the given duct specs, running at low speed could be a significant efficiency mistake.

- Bopp: We'll get to that.

Dymond said there is good (lab) data on [Slide 39]. He recalled a BPA study that found all high efficiency units had good low-load efficiency but reverse wasn't necessarily true. Dymond said

the idea is to ensure that all variable speed units really are variable speed in practice and not just in name. He said he is a proponent of listing some necessary specs.

Grant asked if it is easy to pull these things off a spec sheet.

- Bopp: I'm not sure.
- Dymond: No. Not generally.

Baylon called this work a really good start [Slide 43] adding that the next step is auditable controls.

Grant asked what the next step should be. He wondered if the region needs to wait two years for evaluations to inform a spec. Grant said as nothing's cost-effective now identifying good savers is urgent

- Bopp: We're just trying to focus attention where it can do the most good, and our recommendation for that is to deemphasize box specs in favor of sizing, ducts, and weatherization. Attentiveness to sizing to design temperature will naturally bring along good specs for things like capacity maintenance and even HSPF, but the reverse is not true.
- Rushton: Part of this is the moral hazard of having a box spec at all. It isn't that better specs aren't desirable, it's that focusing on the specs keeps our eye off the ball for things we've been getting wrong for decades. The widgitification viewpoint is a problem.
- Anthony: When we asked Larson and Bush "what would you do for a spec", they delineated what it would take to specify a "good" heat pump. It does seem like we need something.

Geraghty thought that some basic specs to eliminate the total junk could be helpful.

- Bopp: The widgetification concern is that if we have five box specs plus "proper sizing" programs will nail the box specs and say, "look, we nailed five out of six criteria."

Dymond was disappointed. He pointed to three basic questions: Do you have capacity? Can you control resistance? Can the heat pump operate efficiently? It seems like we'd want to spec out the parts we can spec.

- Thomas: I don't disagree. We're saying we want demonstrable energy savings.

Smit ended the meeting at 4:10pm.

Voting Record: July 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)	

Motion: Approve the agenda for the July 21, 2026 meeting. (Douglass/Baylon)	22	0	0	Yes	76%	100%	22
Motion: Approve the minutes from the June 23-24, 2026 meeting. (Baylon/Marks)	22	0	0	Yes	76%	100%	22
Motion: Extend the sunset date of the Forced Circulation Engine Block Heaters for Nonresidential Standby Generators to January 31, 2027 (Miller/Mabee)	23	0	0	Yes	79%	100%	23
Motion: Extend the sunset date of the Vehicle Engine Block Heater Controls to October 31, 2026 (Anthony/Grant)	23	0	0	Yes	79%	100%	23
Motion: Extend the sunset date of the Residential Heat Pump Water Heaters UES and the Consumer Heat Pump Water Heater in Commercial Applications UES to August 31, 2026. (Baylon/Jerome)	22	0	0	Yes	76%	100%	22
Motion: Approve updates to the New Homes Standard Protocol as presented with the following changes: • Eligibility: exclude stacked multi-family units. Include townhomes regardless of number of units • Dual fuel heating system: use the gas program participation rates and: • Change the Status from "Under Review" to "Active" • Set the sunset date to July 31, 2031 (Douglass/Miller)	21	0	0	Yes	72%	100%	21

Date, Meeting Attendance

* Designates Voting Member

Name	Affiliation
Jamie Anthony*	BPA
Landon Barber*	Idaho Power
David Baylon*	Independent
David Bopp	RTF Contract Analyst
Ryan Brown	NEEA
Kyle Chase*	Jefferson PUD

Noe Contreras*	NEEA
Rebeca Cottrell	Idaho PUC
Leslie Czernik	Hot Start
Bob Davis*	Independent
Joshua Dennis	WA UTC
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
Adam Gage	NEEA
Lisa Gartland*	ODOE
Joe Gaylord	Hot Start
Kevin Geraghty*	independent
Andrew Grant*	Cadmus
Tom Gillman	Puget Sound Energy
Emily Gilroy	WA UTC
Jackie Goss	Energy Trust of Oregon
Connor Grossman	CLEAResult
Angela Hoang	Evergreen Energy
Michael Hoch*	Energy Trust of Oregon
Jesse Holland	TRC Companies
Zachary Horvath	Cadmus
Aaron Ingle	NEEA
Masumi Izawa	BPA
Aaron James	NEEA
Mattias Jarvegren*	Clallam PUD
Mark Jerome*	CLEAResult
Terry Judge	Hot Start
Cody Kleinsmith	Energy Trust of Oregon
Rick Knori*	Lower Valley Electric
Ben Latson	Energy Trust of Oregon
Dustin Levesque	Puget Sound Energy
Denis Livchak	RTF Contract Analyst
Thea Loeser	BPA
Ben Mabee*	BPA
Donald MacOdrum	TRC Companies
Bruce Manclark*	Earth Advantage
Guncha Mandal	Puget Sound Energy
Rob Marks*	Snohomish County PUD

Chris McFarland	Hot Start
Alex Meyer	Hot Start
Eric Miller*	Independent
Holly Mulvenon	Puget Sound Energy
Andi Nix*	Energy Trust of Oregon
Nick O'Neil*	Energy 350
Jesal Parekh	TRC Companies
Andrew Paul*	Avista Corp
Todd Poehlman	CLEAResult
Mike Psaris	NEEA
John Purvis	Clallam PUD
Laney Ralph*	NW Natural
Jes Rivas*	Swift Strategy
Samuel Rosenberg*	Pacific Northwest National Lab
Tim Runyan	NEEA
Josh Rushton	RTF Contract Analyst
Bryan Russo	Puget Sound Energy
Adity Saxena	TRC Companies
Halle Senger	ICF
Andrew Shepard	Energy Trust of Oregon
Leila Shokat	Energy Trust of Oregon
Paul Sklar	RTF Contract Analyst
Kevin Smit*	RTF Chair
Ben Spearing	NEEA
Kenji Spielman	Energy Trust of Oregon
Poppy Storm	2050 Institute
Tess Studley	NEEA
Samantha Taylor	CLEAResult
Laura Thomas	RTF Manager
Eva Urbatsch*	Puget Sound Energy
Garett Valenzuela	C Plus C
Joe Wagner	TRC Companies
Michelle Wildie	Puget Sound Energy
Kevin Watier	Independent
Jim White*	Chelan County PUD
Sarah Widder	NEEA
Alysa Wiyrick	Avista Corp
Marilla Yaggie	BrightLine Group
Neil Yetz	NEEA
Abbie Zubyk	Burch Energy