



In the Community to Serve®

Targeted TAG #6 – CCA/CCP Compliance Modeling TAG Meeting

Date & time: 5/7/2024, 9:00 AM to 10:00 AM

Location: Microsoft Teams Meeting

Presenters: Gabe Forrester, Alyn Spector, Shaun Henson

In attendance: Abbie Krebsbach, Abe Abdallah, Alyn Spector, Becky Hodges, Bradley Mullins, Brian Robertson, Bruce Folsom, Byron Harmon, Caleb Reimer, Carolyn Stone, Carra Sahler, Chad Stokes, Chris Robbins, Debra Campbell, Devin McGreal, Eric Shierman, Eric Wood, Gabe Forrester, Heather Moline, Jennifer De Boer, Jodie Albert, Kary Burin, Kathleen Campbell, Kim Herb, Konstantine Geranios, Lori Blattner, Mahon Walsh, Matthew Doyle, Michael Brutocao, Michael Freels, Michael Parvinen, Noemi Ortiz, Patrick Darras, Quinn Weber, Rachel Preece, Rebecca Eaton, Russ Nishikawa, Shaun Henson, Tamy Linver, Tom Pardee, Travis Hey, Zachary Sowards

Brian Robertson, Supervisor of Resource Planning, opened the meeting by welcoming and thanking stakeholders for participating in Cascade's IRP Process. Brian reminded folks that we wouldn't be doing introductions at the beginning of the meeting but asked if/when people interjected throughout the meeting to please introduce themselves.

Presentation #1 – Safety Moment (Jenny De Boer)

- Safety Moment on power lines

Presentation #2 – Cascade's commitment to reducing emissions (Gabe Forrester)

- Cascade established a Company pipeline emission reduction target of 30% by 2035 compared to 2022 levels.
- Cascade reducing customer emissions through Energy Efficiency and Conservation/ Demand Side Management
- Cascade's 2023 methane emissions rate is 0.047% (percent of volume of methane emitted per total methane throughput volume)
- Cascade piloting emission survey using Picarro and Advanced Mobile Leak Detection technology in 2024
- System integrity: since 2019, Cascade has replaced over 42 miles of early vintage steel pipe with new steel or polyethylene pipe in Washington
- Cascade's Regulated Emissions
 - Customer Emissions: 1.9 million metric tons of CO₂e
 - Operations Emissions: 26,922 metric tons of CO₂e
- CCA Compliance Options: Allowances, Energy Efficiency and Conservation/Demand Side Management, Renewable Natural Gas, Offsets, Other (Hydrogen, Carbon Capture, Synthetic Methane, etc.)

Quinn Weber, UTC: When was that policy started (30% reduction by 2035)?

Abbie: I do not know the exact date, we can get back to you on that. Multiple years

Byron Harmon, UTC: Do you plan to pursue that emissions reduction target regardless of state regulation?

Gabe: Yes

Byron Harmon, UTC: Will these assumptions be put into plexos even if it isn't the most cost-effective pathway?

Brian: If the CCA is redacted, allowances won't exist and we will need to update some inputs into PLEXOS such as avoided cost and cost of carbon. We look forward to having conversations with you if it gets to that point, we would likely need commission support if we are not taking the most cost effective path.

Quinn Weber, UTC: I see on the graph baseline emissions for residential customers keeps increasing, would you explain what underlies that assumption?

Brian: This (graph on slide 5) is from last year's IRP, we have not yet locked in the customer forecast. We had the customer load forecast targeted TAG not long ago and received a lot of good information, so we are still working on updating the customer forecast. I wouldn't read into the baseline numbers here too much, the purpose of this graph was to show the general customer allocation between residential, commercial, industrial, and non-core emissions.

Abbie Krebsbach, CNGC: Thinking of Byron's question before, the 30% reduction of operational emissions by 2035 is the goal.

Byron: Thank you for the clarification, so these are distribution and transportation emissions not residential emissions, correct?

Abbie: Correct, the 30% was for operational measurements.

Carra Sahler, GEI: What kinds of customers are those "non-core" regulated customers. Are we talking large industrial sources mostly?

Abbie: Correct those are large industrial sources I don't know if we talk about any of those particular customers in our slides, but those could be in an EITE category but would still have to have their emissions regulated through us because they don't emit more than 25,000 ton category themselves.

Carra Sahler: Can we go back to the slide with the graph? (slide 5) So this chunk is all transport customers some of them will be the small Safeway that makes decisions year-to-year about its gas use, maybe some are going to be big industrial sources, some of them are going to be for electricity.

Abbie: Correct. Also, in a few cases they might not be transport customers, they might be other exempt customers like a military base.

Byron Harmon, UTC: In the previous draft of the slides sent out, this slide (9) used to say 318 miles. Is there a reason why it was dramatically decreased down to 42?

Gabe: 318 included all pipe not just replacing old pipe. So peeling that back, replacing older pipe was 42 miles of that. Kathleen: I just wanted to add that Cascade has been doing pipe replacement before 2019 as well, I think we started around 2012.

Carra Sahler, GEI: So, you will have a compliance period in November of this year, as an interim demonstration? How do you expect that will look for last year's emissions? On track?

Abbie: We are in the process of having submitted out compliance. There are emissions reports for this year, end of March and we still have to go through a verification period which has to be completed, I believe by August 1st of this year. So truly, we won't exactly know everything until that point but we are projecting that we would be able to comply by November with our compliance plan.

Quinn Weber, UTC: How is Cascade starting to model these resources (slide 11)?

Brian: We will do something similar to the last IRP, we are still finalizing these low carbon numbers and how we are going to get them so we plan on discussing this a little more at the final Targeted TAG and how we are going to incorporate it into our modeling. We'll be using these, they will be in our PLEXOS model and there will be more to come in the last Targeted TAG.

Presentation #3 – Thermal Energy Networks (TENS) (Alyn Spector)

- Bill takes effect June 6 that identifies pathways for utilities to invest in networked thermal energy and associated pilot activities
- Thermal Energy Networks: networked thermal energy can come from geothermal, ground source heat, waste heat, etc.
- Targeted pilots will help cascade determine the scalability of different TENS technologies

Carra Sahler, GEI: Have you talked to City officials about the possibility of TENS there?

Alyn: We are having internal discussions on a suite of options available including TENS. I think reaching out to City officials on TENS may make sense in the future. Once we have a better sense of viable options we'll begin to have conversations if/where there's potential viability.

Presentation #4 – City of Bellingham/Whatcom County (Shaun Henson)

- City passed ordinance in 2022 which requires electric space water heating equipment for new commercial and large buildings, also requires incremental improvements in EE and solar installation or readiness in new buildings
- County voted in 2021 to ban construction of new refineries, coal-fired power plants and other fossil fuel related infrastructure, this doesn't constitute a gas ban but may have impacts on distribution system enhancement projects

Quinn Weber, UTC: Will this have any specific impacts on your distribution system in Whatcom County?

Brian: we have not seen any impacts on our distribution side in Whatcom County so far, we still have commercial and residential growth but are keeping an eye on it

Kathleen: I agree with Brian, we actually checked in with the district this morning and that was the report

Presentation #5 – City of Bend (Alyn Spector)

- Aspirational goal to reduce GHG by 40% by 2030 based on 4 areas: energy supply, transportation, energy in buildings, waste and materials

Carra Sahler, GEI: Have you talked to City officials about the possibility of TENS there?

Alyn: We are having internal discussions on a suite of options available including TENs. I think reaching out to City officials on TENs may make sense in the future. Once we have a better sense of viable options we'll begin to have conversations if/where there's potential viability.

Carra: With the amount of growth they are going to experience there, this seems like a great opportunity. I see you are thinking of maybe waiting but I would encourage you not to wait. You don't always have to have all the answers before you start getting people excited about that as a possibility. I just think it could be really exciting.

Alyn: I don't disagree with you, I think it is something we certainly have to think about. Since we are having those broader discussions, we are still kind of formulating what the overall suite of opportunities might be. It is probably appropriate to have some discussions, but I wanted to make it clear that there's nothing firm yet. The difference between Washington and Oregon is that in Washington state, this fantastic law passed that provides the opportunity both to seek recovery and to have some formalization of TENs pathways. This isn't to say we wouldn't be interested in something similar in the state of Oregon, there just aren't similar pathways.

Carra: I think that is correct that having the legislative driver is helpful. At the risk of putting something out there, I would love to explore that as a possibility here in Oregon.

Alyn: From the policy side of the shop I would say do feel free to reach out.

Presentation #6 – National Focus (Gabe Forrester)

- USDA published rule 89 revision coverage determination rulemakings
- EPA proposed adjusting standards for ENERGY STAR natural gas furnaces to AFUE 97%+

Post Presentations –

Heather Moline, UTC: I am looking for more information on how you all are interpreting thermal energy network bill. (slide 16) Rulemaking says piped non-combustible fluids so this is not anything connected to natural gas or renewable fuel pipelines, correct?

Alyn: Correct we would be using the waste heat of the non combustible fluid flowing through the pipe. This is also our current understanding and not an authoritative stance, this is a starting point of our best understanding of the law.

Abe Abdallah, PUC: Are these thermal networks like they use in Europe that use waste heat for space heating?

Alyn: That is my understanding, but the ultimate interpretations are going to be developed in conjunction with our regulators.

The Meeting was Adjourned

Per Cascade Commitment #8 (Stakeholder Engagement Design Document, 2/22,2022: "Provide TAG minutes that include the action items from bullet #7 as well as any upcoming deadlines for feedback on the IRP"), here are additional action items to track, coming out of the TAG 6 meeting:

1. Cascade stated that the Company would get back to WUTC on the question of when the Company's Environmental Policy was put in place. Cascade can confirm that policy was in place when CNG was acquired on July 2, 2007.