

City of Boulder – Xcel Energy Partnership

Community Advisory Panel Quarterly Meeting

Date	March 20, 2023
Location	Zoom Virtual Workshop
Participants	<u>Community Advisory Panel Members</u> Andy Sayler; Brian Lindoerfer; Emily Swallow; George Craft; Jack Vultaggio; Julie Zahniser; Justin Brant; Pat Hillmeyer; Peter Lilienthal; Ramesh Bhatt; Stephanie Hsiung; Wayne Seltzer; Eli Feldman Regrets: Bryn Grunwald; Dennis Arfmann <u>Boulder Xcel Team</u> Carolyn Elam; Emily Sandoval; Matt Lehrman; Iffie Jennings; Neil Cowan; Imogen Ainsworth and Terry Hatfield, Brendle Group <u>Institute for the Built Environment</u> Josie Plaut, Facilitator; Monica O'Reilly, Recorder <u>Members of the public</u> Nine members of the public observed at least a portion of the meeting.

Meeting Summary

Topic	Notes
Welcome & Agenda	<p>Emily Sandoval welcomed the group and noted the purpose of the discussion was to give the panel time to discuss the topics on their agenda and that there would not be an opportunity for public Q & A. She invited any public feedback to be emailed to contactclimateinitiatives@BoulderCO.gov.</p> <p>Josie Plaut presented the meeting's agenda:</p> <ul style="list-style-type: none">• Welcome• Evaluations Follow Up• Day-Ahead Emissions Forecasts• Advisory Panel Charter• Partnership Overview & Workplan• Public Engagement Plan

	<ul style="list-style-type: none"> • Past Quarter Summary • Look ahead <p>Xcel introduced Imogen Ainsworth and Terry Hatfield from the Brendle Group.</p>
<p>Evaluations Follow Up</p>	<p>Josie Plaut provided the year one Advisory Panel evaluation feedback:</p> <ul style="list-style-type: none"> • Clearly define strategies and projects to meet Boulder’s goals. • Show how the partnership and the panel is making a difference. • Identify and report on key performance indicators (KPIs). • Refine advisory panel charter. <p>And the Boulder Xcel responses:</p> <ul style="list-style-type: none"> • Draft partnership overview and work plan documents. <ul style="list-style-type: none"> ○ Panel recommendations and internal teams identified 52 strategies included in the work plan. • Panel input on partnership overview and workplan documents. • Established targets for strategies and KPIs. • Drafted a revised charter.
<p>Day-Ahead Emissions Forecasts</p>	<p>Iffie Jennings opened the conversation and shared the importance of day-ahead emission forecasts, as well as the challenges of designing a reliable system. Xcel is researching options for reliably producing day-ahead emissions forecasts. Panel questions and discussion:</p> <ul style="list-style-type: none"> • Recommend looking into WattTime. • Would be possible to create a publicly available price forecast? <ul style="list-style-type: none"> ○ Uncertain, requires follow up. • There is value in day-ahead emissions forecasting but asked why is the focus was not on real-time signaling for either demand response systems so that they’re getting real time feed from the system? <ul style="list-style-type: none"> ○ Carolyn - this is the goal. ○ Matt – complexities of having a day-ahead emissions forecast and whether or not people are shifting their usage in response. • Would be most effective if rate payers could sign up for a one time program vs. continual management of energy – automation is key. • Can the group expect an update about the day ahead emissions forecast in the simmer? <ul style="list-style-type: none"> ○ Iffie – yes. • The day ahead emissions forecast focuses seems to focus on the short-term when the team should be focused on long-term solutions. • Julie will resend resources on this topic and thanked the team for bringing the topic to the group.

<p>Advisory Panel Charter</p>	<p>Josie Plaut reviewed highlights from the updated Advisory Panel Charter (see presentation) and asked the panelists for clarifying questions and/or discussion:</p> <ul style="list-style-type: none"> • Should we consider adding BVSD representatives? <ul style="list-style-type: none"> ○ Carolyn - interesting idea and would like to explore further. • Including racial and equity issues is great, but the primary goal has to do with carbon, which is not mentioned and deserves equal footing. <ul style="list-style-type: none"> ○ Josie – the first two paragraphs of the Charter cover carbon reduction and renewable energy mandate in depth. <p>Panelists were asked to ratify the charter - all voted in favor, with the modification to include BVSD for panel representation.</p>
<p>Partnership Overview & Workplan</p>	<p>Iffie Jennings provided a brief synopsis of key activities for the Boulder Xcel Partnership over the prior 18 months based on the Advisory Panel’s recommendation and desire for an overall roadmap. Xcel developed a (1) gap analysis and roadmap that includes baseline models, targets, and identification of strategies and projects, (2) partnership overview document, which serves as a public facing document providing clarity to the goals of the partnership, and (3) energy partnership agreement workplan, which is a strategic 3-year work plan to guide implementation of strategies and projects meeting the goals of the Partnership agreement.</p> <p>Pause for questions:</p> <ul style="list-style-type: none"> • What is the release date on the Work Plan? <ul style="list-style-type: none"> ○ Iffie - the Work Plan will be developed by the project teams throughout the year. The Work Plan is not intended to be a public-facing document. It will be used primarily by the city and Xcel to prioritize and track efforts. It will be a working document that will be updated regularly. <p>Additional slides were presented about the impact of each of the focus areas on energy and transportation emissions (see presentation).</p> <p>Panel questions and comments:</p> <ul style="list-style-type: none"> • If the local supplies are included in the grid-supplied electricity, what’s not included? What is that sliver labeled “local renewable generation and storage”? Why leave it out of grid-supplied electricity? • The grid supply electricity gets credited first, and therefore these other things are not being credited against the current situation- they’re being credited against a future much greener grid? <ul style="list-style-type: none"> ○ Terry - grid supply to electricity is accounted for first. Over time the grid becomes greener, and the emissions factor is going down. Savings of adding new renewables later in time would offset that smaller number as the grid gets greener. The decision to break out that grid supply, to electricity was to show

that chunk. But there is a small sliver baked into there that captures that renewable generation, electricity, emissions reduction.

- Is there a specific reason why the impact from new programs don't start until 2029?
 - Terry – This represents the most uncertain, complex and/or expensive options to cover the balance of that electricity emissions. These are items that generally have a high price tag and will have a longer lead time. Need to optimize in the other arenas to minimize how much we need to invest in new programs.
- Do things like, new demand response and DER programs, fall into the category on new programs? If that is the case, would we actually want to wait that long to just have it fill that gap?
 - Iffie – It's not about wanting or needing to wait, but more an issues of feasibility. It's not saying that projects have to wait – its more about when new programs are ready to be scalable and how much of a gap they would close.
- So potentially the orange triangle could be a much larger triangle?
 - Iffie - yes.
- What assumptions are being made for things like transportation electrification, building electrification, and energy efficiency, where we don't have plans for Xcel or targets for 2030 for the city?
 - Terry - there is an appendix that outlines all of the specific assumptions that are part of analysis around electrification and efficiency.
 - Caroline - this is less about what fits within the sales targets and is more about starting from the place of what it would take to hit the city's goals. Then thinking about the share of the Partnership contributed towards those goals. Not everything the city does will go through the Partnership.
- Are we underestimating the gap that we need to fill new programs based on assumptions?
- Is it correct to assume that electrification has a larger impact than this graph indicates? If we didn't do any building electrification, this graph implies that would have almost no impact on our greenhouse gas emissions. But it sounds like we're embedding a lot of the assumptions into the grid-supply electricity part of this graph.
 - Iffie - the next graph gives a break down by percentages of how each area will impact it by 2030.
- We should be careful with this graph because it could be misleading to the public by conveying that electrification shouldn't be a priority because it has almost no impact on our greenhouse gas emissions.
 - Josie - electrification helps to reduce the natural gas emissions not the electricity emissions which was the original purview of

the Partnership, although electrification will play a major role in solving for the natural gas emissions.

- The graph is inaccurate because there's no drawdown in natural gas emissions attributed to building electrification.
 - Josie - good points to think about as the document is brought to the public. Will consider how to do so with integrity.
- If the city's goals are being wrapped into the electric grid information that doesn't help people understand how the city is meeting its goals. Additionally, the workplan should be publicly available. Public transparency is important to people being engaged. The new programs are still being developed, but do not exist at this time. We are counting on those new programs, in terms of emissions, but they're not concrete yet. Finally, excel products may not belong in the partnership. Boulder should do some of its own things.
 - Josie and Caroline - these are important points moving forward.
- Given the current context, we should be encouraging the uptake on opportunities and being more positive about the later year contributions. The graph makes potential contributions look slim.
 - Carolyn - going forward with local generation goals offers an opportunity to further break down the grid-supplied electricity piece into further chunks of contribution beyond just standard local generation goals.
- I don't think we're giving the local renewable generation and storage piece enough credit.
 - Josie - there is a need for clarification around what each piece of the graph is composed of.

Iffie showed a pie chart that demonstrated the impact of each of the focus areas on estimated 2030 energy and transportation emissions.

Panel comments and questions:

- Grid-supply electricity needs to be broken down as the sources to that are confusing to me.
- Clarification is needed on whether the graph presents total emissions or just fluctuation emissions.
 - Carolyn - the Partnership is focused beyond just electricity emissions and energy related goals. That means tackling fossil fuel consumption through transportation and buildings.
- Is the graph total emissions or electricity emissions?
 - Carolyn - total emissions. The blue is electricity, and the grey is the cumulative of natural gas and fossil fuel.
 - Brian - Figure 7 on page 12 provides more context to this topic.

- Building electrification by itself does not reduce emissions. These slides say building electrification will reduce emissions which is not true.
 - Carolyn – while electrified buildings will still produce some emissions until electricity is 100% renewable, it already reduces emissions compared to building fueled by natural gas. What you continue to save as the grid grows greener grows exponentially.
- In the appendix it states we are assuming 100% commercial and residential electrification by 2030, so why is there 18% natural gas emissions mapping into 2030 if there is no longer any natural gas usage from residential or commercial properties?
 - Terry – there are two scenarios in the Appendix, one that looks at what is the potential if 100% electrification was the goal and another, more realistic goal that is far less than 100% by 2030.
- There are too many things being mapped on the pie-chart. It should just have three colors for transportation, natural gas, and electricity. It seems like we're hiding the natural gas reduction in some of these graphs.

Iffie showed a summary of the focus areas and strategies for reducing greenhouse gas emissions. The Work Plan has four focus areas: (1) reducing greenhouse gas emissions; (2) achieving 100% renewable electricity by 2030; (3) increase local generation; and (4) ensure it's a safe, resilience, and reliable system. Throughout all areas the core is to create innovative and equitable solutions.

- Why is equitable included?
 - Iffie – Part of the Partnership agreement was to be able to provide equitable solutions. More about this can be found in the Partnership Overview document.

Iffie shared an example of a draft of Project Charter focused on Vehicle to Building Car Share Pilot project. Iffie emphasized this project contributes to the Energy Partnership goals while creating equitable solutions for low-income multi-family residents.

Panel comments and Questions:

- With regard to the KPIs, are we measuring it collectively or as individual projects and would there be any sort of reoccurring updates to these KPIs?
 - Iffie - the KPIs are for individual projects. The panel will be updated quarterly on progress, as well as an annual plan progress update.
- When will this document be distributed?

	<ul style="list-style-type: none"> ○ Iffie – the Work Plans are an example of what the Boulder Xcel teams will be developing and progress will be shared at upcoming Panel meetings. <p>Iffie overviewed the Community Advisory Panel’s written comments from the Partnership Overview document and briefly discussed the goals and commitments for community engagement and stakeholder involvement feedback. Iffie wrapped up the presentation by showing the document finalization schedule and discussing the longer-term next steps.</p> <p>Josie asked for any additional questions or feedback:</p> <ul style="list-style-type: none"> ● Can you explain more about the innovative projects section? What stage are these projects in now and how soon can they start going through processes at the PUC? <ul style="list-style-type: none"> ○ Matt discussed Zero Emissions Communities and provided a brief summary on the goals on new programs. ○ Carolyn responded that no matter the project there’s a couple years of PUC process and years of build and the three years represented here is really doing groundwork for the impacts will show up later in the decade.
<p>Public Engagement Plan</p>	<p>Carolyn opened the conversation on community engagement and how the Panel might be involved.</p> <p>Panel comments and questions:</p> <ul style="list-style-type: none"> ● If we presented this plan today or the press reported on it, what would they say? We don’t know if we’re going to make our 2030 goal, we don’t know who is going to make investments, the city hasn’t identified locations to install new generation or storage. I’m not confident we can meet our goals and I think the press would eat us up. <ul style="list-style-type: none"> ○ Carolyn - this shouldn’t stop us from going out and having conversations with the community. ● Electrification is no longer differentiating Boulder. The differentiation is about creating new, renewable sources and storage. <ul style="list-style-type: none"> ○ Carolyn – the intent is to share an engagement plan in detail with the panel and to get their feedback.
<p>Past Quarter Summary</p>	<p>Carolyn provided a brief overview of the Partnership’s activities and progress over the past quarter. Neil Cowan took over to discuss Zero Emissions Communities.</p> <p>Panel comments and questions:</p> <ul style="list-style-type: none"> ● Two programs to sell to the public as wins: Renewable Battery Connect program and Charging Perks program.

	<ul style="list-style-type: none"> • Local generation and storage is being underplayed. Local storage should be specifically called out in the resilience section – it is a critical resilience measure and needs to not be an afterthought. Are we reducing electricity emissions or total emissions? <ul style="list-style-type: none"> ○ Josie – we are running out of time, but these comments and questions were captured and would be shared with the Boulder-Xcel team.
<p>Next Quarter Lookahead, Next Steps and Wrap-Up</p>	<p>Josie presented the next quarter look ahead:</p> <ul style="list-style-type: none"> • Initial Public Engagement WG Meeting – TBD, early April • Public engagement events – Q2 • Equity Lens refinement & use on select strategies • Inflation Reduction Act Funding Opportunities • Microgrids + Other Tech Working Group • Combined Executive Team event and AP meeting – early summer <p>Josie reminded the group of the meaningfulness of this work and thanked the team for their effort.</p>