City of Boulder – Xcel Energy Partnership

Xcel Advisory Panel Quarterly Meeting - Joint meeting with Executive Team

Date	July 24, 2023
Location	Zoom Virtual Workshop
Participants	Community Advisory Panel Members Andy Sayler; Brian Lindoerfer; George Craft; Jack Vultaggio; Julie Zahniser; Justin Brant; Pat Hillmeyer; Peter Lilienthal; Stephanie Hsiung; Wayne Seltzer; Dennis Arfmann, Bryn Grunwald, Eli Feldman Regrets: Emily Swallow City of Boulder Carolyn Elam; Emily Sandoval; Lex Telischak; Nuria Rivera-Vandermyde, City Manager; Chris Meschuk, Deputy City Manager; Jonathan Koehn, Climate Initiatives Director Xcel Energy Iffie Jennings; Cheriese Marczyk; Robert Kennedy, President, Colorado Operating Company; Jack Ihle, VP Regulatory & Pricing; Hollie Velasquez Horvath, Regional VP, State Affairs and Community Relations Institute for the Built Environment Josie Plaut, Facilitator; Eleanor Sitter, Recorder Members of the public There were at least two members of the public in attendance

Meeting Summary

Topic	Notes
Welcome & General Updates	Emily Sandoval welcomed the group and noted the purpose of the discussion was to have an open dialogue between executives at the City of Boulder and Xcel Energy with the Advisory Panel. In particular, the group plans to present and discuss Renewable Energy and Building Electrification, as well as any other topics brought up by participants during the meeting.

	While the meeting was closed to public comment and participation, observing members were encouraged to ask questions or provide feedback by emailing contactclimateinitiatives@Bouldercolorado.gov.
General Updates	Josie Plaut led a quick round of introductions and reviewed the agenda. She also presented a short review of the Partnership Overview Document. *For more detailed information, please refer to the PowerPoint for this meeting.*
Renewable Energy: 2022-25	Jack Ihle presented an update on Xcel's Electric Resource Plan, with a specific focus on how the bids received can inform and contribute to the development of a Zero Emission Community product. *For more detailed information on the content of the presentation, please refer to the posted presentation, the recording of the meeting.* **Panel Questions** Pat – Is there a plan to expand the range of battery systems qualifying for the renewable battery connect program? Are there more projects in the pipeline now? - Jack I – If you already have the batteries, I'm not sure if we'll be providing rebates, will need to check for qualifications and certification process, I don't believe at this time we're limiting providers of batteries. Jack V – You mentioned 4000 megawatts going out to the RFP, is that location bound, and what is the scope or limitation for where this capacity might reside? - Jack I – Colorado is a bit of an (energy) island, we don't have much interconnection, so we're building a transmission network in a loop around the eastern part of the state. There is no requirement, but we're economically sorting bids and the most compelling are the most likely to connect in practical application to Colorado. Peter – Focusing on locally supplied generation size- is there an underrepresentation of local generation potential and microgrids? (Reference in comment found on page 18 of partnership overview document, specifically the representation of local generation to the overall goal) I'd like to bring your attention to an approach in Tampa, community microgrid with purchases from the utility provider, also known as bloc energy. - Jack I – I do not view microgrid as a lost sales proportion, it is however a wraparound on the grid. You can sell into that area and create local generation and we currently have five microgrids proposed in our recent projects. I agree with you on the potential for microgrids. Peter's further comments (via Zoom chat) - The more important topic pertains to microgrids and their contribution to resilience. I understand that Xcel has pilots, but it isn't really in our document. I didn't understand Jack's comment that there isn't any financial challenge to the utility for behind-the-meter resources. I think the ability for a utility to own the microgrid is a

game-changer if utilities take advantage of that. The other topic is the analytic methodology that led to the graph on page 18.

Wayne – My question is about Xcel's 2030 plan to be 80% carbon-free statewide. How do we reach the 100% plan for Boulder, is that a discussion for today or the future?

- Jack I– 80% is the minimum baseline. Alongside Boulder's leadership there is opportunity to go farther and do so beyond just Boulder.

Dennis – My question pertains to day-ahead greenhouse gas emission data, could you give us some additional information about that?

- Jack I – We (at Xcel) are interested in providing day-ahead emission data, we would like to release more data so that the communities and individuals can build programs reflecting that. It is interrelated to ongoing discussions with the Department of Energy, and an issue facing it currently is the liquidity of our power market and the risk of information releasing considering competing energy providers. That said, our current operations support these ideals.
- Robert – There is a desire to be transparent, however there is a concern with losing competitive advantages.
- Hollie – Alternative paths to day-ahead data include the Real Time market that we joined in April which we are currently integrating. In addition, we are partnering to analyze what regional day ahead markets might look like. Ideally, we are aiming for spring 2024 to trial another new resource to customers and greater Colorado. Currently, there is a real time app with smart metering, which matches generation. At this time, it is a matter of what technology will evolve first.
- Jack I – We are taking at least baby steps to work on this, these include Participation and Time of Use and monitoring, in order to mitigate renewable energy surplus.

George – Could you talk a little more about C&I? I'm not clear on where we're at with that.

- Jack – C&I is aimed at commercial and industrial systems operating with 20 kW, whereas residential operate closer to 4-10 kW. IQ/DI (Income Qualified and Disproportionate Impact) is relatively new, and we are aiming to fill this gap. At this time, it is more of an outreach program.
- Hollie – This is a priority for not only us but local communities, local nonprofits particularly provide education and training in a variety of spaces for customers like billing and renewable options. We (at Xcel) aim to make a centrally aligned and accessible space to partner with these new programs and nonprofits to promote education and outreach. A specific example of this is our Energy Outreach Colorado's low-income community solar gardens.

Jack I then provided a one-page summary to better understand the IQ (Income Qualified) /DI (Disproportionate Impact) Community Targeted Annual Incentives

- This program opened incentives to DI communities for the first time.

For more information on this summary, refer to this recorded session and the presentation resources.

Eli – We (at my company) develop utility scale solar in Colorado and are currently facing a county-wide moratorium in Delta and Montrose County, and that issue is repeated in rural counties across the state. Could this issue be a hurdle for our 2030 goals, and could Xcel and larger utilities become involved in state law that could preempt local regulation to better reach our goals?

- Hollie – I've been in conversation with state partners surrounding local control and state control, and currently we have not agreed to support a state law but are interested in further discussion. Perhaps creating statewide standards that assist counties could empower renewable sourcing, however, Colorado local and state control is sensitive. As more renewables come online, the issue may become more prevalent. I believe the incentive could be a financial concern, as economic property tax for generation means siting renewables is no longer as good of an incentive as it once was. I have had discussions with ex-governor Ritter surrounded the idea of siting renewables in currently underrepresented counties, even if not using it, however local county power may be too sensitive at this time.

Julie – Is there any input Boulder Panelists can weigh in before they are in place and what are programs that Xcel are currently considering? Does the Executive have serious interest in community expertise prior to project installation? I have questions surrounding Pearl Street electrification.

- Iffie – when we looked at the overview, today's objective is to better understand Xcel's pilot projects in Renewable and Electrification for Boulder, we haven't reached that part of the meeting yet.

Brian – I'd like to comment on our (Boulder's) goals on a local level. I don't believe that Xcel can pursue these goals alone. Thinking of CU Boulder as a campus, we (at CU Boulder) should consider Xcel as a partner rather than exclusively the leader of this project, a collaborative effort is going to be needed to achieve our goals.

- Hollie – CU Boulder (and other large C&Is) are frequently on our mind as we advance clean heat and fuel partnerships. Policy is now in support for larger pilot projects such as the geothermal bill that was just passed are now more suggestable for top of the list choices in partnerships and projects. However, it is important to make sure these partnerships surround the correct project.

Nuria – I wanted to appreciate Julie's comments and the City of Boulder in general, and recognize that this meeting may not be applicable, but I would like to learn how to scale to the city itself, going forward, can we prioritize. Does our entire community know the work we are doing on this journey? Happy to wait but thought I'd mention it.

	- Julie - that is a huge thing we need to improve upon – engagement and education needs to be priority. Specifically, how much carbon is being reduced and who is paying for it. Josie – Community engagement will be touched briefly at the end, but now I'd like to turn your attention over to Jack to discuss Electrification. Jack I– Phase two rate case, how you structure is of importance, we need to consult with the public utility commission as well, and there is a live proceeding right now.
Building Electrification	Jack I then led the panel through Xcel's Electrification plans, including the Clean Heat Plan and Pearl Street Commercial Electrification Project. For more on what was discussed, please refer to this meeting's presentation recording. Pat – If an area is designated as a non-pipeline alternative, do you get relief on that program if it's deprecated for the next homeowner? - Jack I – There are several ways that are non-pipe alternatives, many in their beginning stage won't require shifting old capacity systems, rather we are more focused on restricting new access pipes. This Market Transformation Portfolio is to allow new options attractive. I think your scenario may require some legal policy development, and I am unsure if that is fully developed at this time. We need to investigate this. Josie asked to jump to the Pearl Street Electrification NPA and the Clean Heat Program and Jack I. presented additional context and information for the Pearl St. project. Pat – To clarify my question using this new information, if we go through with this project on Pearl Street, can Xcel give relief to the next business owner in that area that may want to opt out of the implemented system? - Carolyn – Customers would be able to turn the gas system back on, however it would be significantly more expensive. It is more about creating an incentive for electric. - Jack I – At some point in this system, there will reach a point where adding customers will not be possible like you suggest. - Carolyn – there are other services in that area, however, from the city perspective this is an interesting test in leveraging dollars, how do we avoid replacing gas infrastructure and invest that money into more electric and more predictable and lower emission options. Peter – I'm curious about the scale of cost for this project is on this project. You'd (at Xcel) like to avoid repair, but would it still be an allowable cost? If

	it is, what subsidies would you have to provide to business to promote electrification, and is that a challenge? - Jack I – I do not know; we're working on several projects at the moment. However, conceptually you're correct. This project is based at a repair or retire stage and can be used as a reference point to argue electrification incentives that we will be offering if this project is approved by the commission. This is the largest electrification project we've ever worked on at this time, and the avoidance of repair costs are relevant in the justification of this project, leaving room for flexibility in the budget. - The cost was later defined by Carolyn at an estimated 6.7 million dollars to repair the current pipeline infrastructure for the Pearl Street Project, and the distribution upgrades (pertaining to the next question) estimated at just over 2 million dollars. Wayne – Has any engineering work been done to determine if an electrical distribution upgrade is necessary to serve the demand of this project, or is there enough capacity at this time? Carolyn – see above clarification. Wayne – As a microcosm of city-wide electrification, for density issues in electrical use, is this a worst-case cost scenario for an electrification project's costs? Is the cost smaller for residential areas, or is this project smaller than an industrial or higher-energy consumptive area's cost would be? - Jack I – You question gets into the complexities of gas capacity planning and electrical distribution system planning, which is a highly site-specific type of analysis and is hard to generalize. This situation also assumes that Xcel serves both the gas and electric business, which is true for Boulder but not all our customers. In situations where we do not serve the electric utilities of an area, this would raise questions around justification in our rebate program. Wayne – In this same thread of electrification, there may be a publicity opportunity with famous chefs located on Pearl Street who could promote the electrification project considering the recent news surrounding a gas range versus electric cooking debate. - Jack I – This could be a unique and interesting opportunity for differentiation for the Boulder restaurant community. Due to an unintentional mix up, a non-panel member had the ability to ask a question in the chat. The question and response was as follows:

	- Non-Panel question – What would be the logistics surrounding the addition of a renewable microgrid within this project with capacity for storage? - Jack I – This project is currently proposed by Clean Heat, and the idea is to serve it with the current grid technology. I don't think we've looked at this perspective yet and it is not added in the current proposal, but there may be potential to include it later in a partnership with the city of Boulder. - Robert – There could be potential for this idea outside of the Clean Heat filing and project as well
AP Discussion	Josie asked the panel to share their thoughts on potential tensions between Xcel's efforts on a statewide scale vs. Boulder's net-zero and 100% renewable commitment by 2030. Pat – I appreciate seeing a wider point of view from Xcel and recognize the major difference between the level of role Boulder plays in reaching their goals. I also appreciate the good faith shared between the city and company to understand the most cost-effective options in reaching both party's goals. Brian – I don't think that this should be seen as tension, but rather a chance to find the right opportunities to aid us in reaching our collective and respective goals. From a large customer context, business as usual is not going to allow us to reach Boulder's or Xcel's goals. However, with creativity and collaboration we can better navigate the regulatory framework of Colorado and truly advance our goals. For context, to electrify CU's Boulder campus, the current operating systems in place would be highly complex and costly, as we currently operate on as steam backbone. Wayne – I do not believe that Boulder is special. Although progressive, our climate aspirations and goals such as clean air and efficiency are widely shared statewide. I believe that Boulder is in a unique position to provide an example of a city that takes a more aggressive approach to clean energy commitment, in hopes of other cities becoming inspired to do the same. I hope that this project shows other cities in the state and beyond that we (as society) are more closely aligned on these issues than what meets the eye. Josie then invited Jack I to provide a quick response to the perspectives shared from Panelists before closing the meeting. Jack I – I see more synergies than tensions among stakeholders as well in these projects, and we're (Xcel) going to need help to fulfill the last stretch of our shared goals. Reaching 50% or 80% of our company's goals has been proven feasible at this point. In addition, customers so far have seen an improvement on maintenance of service quality thanks to wind and large scale solar, however, the last pieces of these goals require more

	community-based support. There are many projects in place now that are underutilized. Additionally, with programs such as the Clean Heat plan that we've mentioned today, we are in new territory in terms of scale implementation, but when actualized, there are promising results proposed. These programs are designed to be utilized as opportunities for communities with goals like Boulder, and this project hopes to create a situation with capacity for implementation applicability, in Colorado and beyond. Jonathan –I wanted to reflect on Wayne's comment on specialty. I wanted to push back on that because of the unique relationship Boulder shares with our utility provider. We have an expectation to incubate these new solutions and technologies in a bold manner. The intention of our projects is to be able to replicate these solutions at scale, and as such it is important for the Advisory Panel and Xcel to collaborate and identify potential and current roadblocks so that we can continue to progress in this partnership. Hollie – I'd like to mention the significance that the location of Pearl Street carries as well, as a commercialized street that is favored by many to be willing to take on a reconstruction project like this with inevitable atmosphere disruption. How much outreach and what kinds of communication should we (at Xcel) be doing to ensure that every stakeholder is onboard and excited about electrification? The concept on the regulatory side is significant, but implementation cannot succeed without recognizing the business impact as well.
Lookahead	Josie then turned the group over to Emily and Iffie to briefly look ahead at the future steps of the Advisory Panel including Community Engagement. Iffie briefly outlined the work in progress for the coming quarter and Josie outlined the process for Panel Member engagement. Next regular session quarterly meeting on November 6th, 5:30-7:30pm.