



City of Boulder – Xcel Energy Partnership

Building Electrification Working Group – Meeting #2

Date	March 3, 2022
Location	Zoom Virtual Meeting
Participants	George Craft, Carolyn Elam, Josie Plaut, Dennis Arfmann, Bryn Grunwald, Pat Hillmeyer, Tom Hootman, Iffie Jennings, David Kang, Wayne Seltzer, Ann Kirkpatrick, and Stephanie Hsiung

Meeting Summary

Topic	Notes
Welcome, Introductions, + Agenda Overview	<p><i>Josie welcomed the group and provided an overview of the workshop’s agenda.</i></p> <p>Agenda</p> <ul style="list-style-type: none"> • <i>Regional Updates</i> <ul style="list-style-type: none"> ○ <i>Denver RFP</i> ○ <i>Marshall Fire</i> • <i>Review projects ideas from the workshop that are already in the works</i> • <i>Review and discuss new potential projects based on workshop outputs</i>
Regional Updates	<p>Denver RFP Denver just released an RFP to run a \$40 million dollar program to help increase the electrification of commercial buildings with a focus on equity.</p> <p>Marshall Fire A lot of interest from builders and owners for electrification in rebuilding efforts. Xcel has expanded its incentives to help cover costs for efficiency measures to meet the new energy code. The incentives will offset the higher initial costs of building electrification.</p> <ul style="list-style-type: none"> • Incentives are funded through the rebate program which is funded by rate payers in the area. • Geothermal is not likely because many of the homes are already on a foundation that would make it difficult to add in geothermal energy.

<p>Projects in the Works</p>	<p>Building Electrification Codes and Rebates</p> <ul style="list-style-type: none"> • Xcel has new construction incentives for homeowners and commercial. • Boulder is working on new codes that will require electrification and is looking at other strategies in the current Denver RFP. • Codes will apply to existing structures. • There are incentives in place to help cover costs of electrification. • Current information about rebates is available to the community through Facebook and other platforms. <p>District Energy Systems</p> <ul style="list-style-type: none"> • Boulder is currently exploring a district scale energy system at Alpine and Balsam in conjunction with the redevelopment of an old hotel. • CU is also being evaluated for potential district systems. <p>Chautauqua</p> <ul style="list-style-type: none"> • Efforts are underway to electrify all the cottages at Chautauqua. <p>Residential Contractor Education Programs</p> <ul style="list-style-type: none"> • About 150 regional contractors have participated in training on how to properly install heat pumps and made aware of the rebates. Once contractors have completed the training they are put on a list of qualified installers. • Some contractors are hesitant to switch to heat pumps because they are concerned about homeowner experience with the structure. • Xcel is pushing the message to contractors that the switch to heat pumps is inevitable. • Ann has been meeting with manufacturers and distributors who are also pushing heat pumps and expecting significant increases in sales. • Different efficiency levels of heat pumps receive different levels of incentives, but there is not a unit-by-unit comparison of models – the market is changing too fast to keep a detailed list. <p>Exploring Sewer Waste Heat Capture</p> <ul style="list-style-type: none"> • Regulation around temperatures for wastewater discharge are helping to incentivize new technology and enabling the capture of residual sewer heat, which can become a source of energy through heat exchangers. • There is a substantial sewer waste heat recovery system at the recently redeveloped National Western Center. • RMI is currently building a sewer waste heat capture system.
<p>Potential New Activities</p>	<p>Framing</p> <p>Josie presented a list of potential new initiatives/activities based on the workshop outcomes, noting that these ideas are not yet well developed. Workgroup</p>

members were asked to consider the following criteria as they listened to the new ideas:

1. Potential impact
2. Effect on equity
3. Difficulty of implementation
4. Human a/o financial resource needs

Expand Low-Income Weatherization Program to Include Electrification

- Expand the low-income weatherization to include electrification in addition to efficiency, helping to lower utility costs and increase electrification.
- There are several hindered households in Boulder that qualify for the weatherization program.
- Funding sources would need to be explored further.
- Increasing the cost per home by adding electrification could mean making improvements to fewer homes.

Explore Split Incentives

- Take a deep dive to understand leverage points and strategies that address split incentives (i.e., where tenants pay for utilities and owners pay for upgrades) including single-family, multifamily, and commercial rental spaces.

Develop Electrify Now Campaign

- Inform owners, installers, and retailers about benefits of purchasing electric appliances proactively or when replacement is needed.
- This plan could involve city backed volume purchases, education events, financial support for panel upgrades, and packaging with solar installations.
- Informing the public on incentives and work to dispel myths about heat pumps.

Additional Contractor and Installer Education

- Assure contractors and installers are knowledgeable about rebates, tax incentives, and health reasons for switching to electric appliances.

Develop Commercial Electrification Rebates and Incentives

- Explore pathways to develop commercial rebates and incentives, which are currently lacking, through a 2023 pilot program.
- Include cost impact studies, explore a status program (labeling), and forums to dispel myths and misconceptions.

Support Transformer Upgrades

- Identify pathways to financially support transformer upgrades, avoiding the “next customer on issue” having to pay for grid system capacity for increasing electric demands due to electrification.

Potential New Idea Debating

Polling

A poll was released to gauge how work group members felt about the potential new initiatives/activities. The ideas were ranked 1 to 5 with 1 being low and 5 being high.

- Develop Electrify Now campaign: **4.4**
- Develop commercial rebates and incentives: **4**
- Explore split incentives: **3.8**
- Expand weatherization programs to include electrification: **3.6**
- Support transformer upgrades: **3.1**
- Additional contractor and installer education: **3**

Ranking

Working group members then asked to rank the options from highest to lowest priority. Results were as follows.

1. Develop Electrify Now campaign
2. Expand weatherization programs to include electrification
3. Explore split incentives
4. Develop commercial rebates and incentives
5. Additional contractor and installer education
6. Support transformer upgrades

Reasoning Behind Rankings

Working group members were asked to share their rationale with each other.

- Transformers should be the responsibility of Xcel.
- Instructing the public on the benefits and pathways to electrifying buildings in Boulder will increase the awareness and support for electrification.
- Need to better communicate solar incentives to encourage developers to opt for more efficient, all electric buildings.
- There are many misconceptions present in the contracting community and educating this group will help dispel these beliefs that go against electrification.
- Waiting to address transformers (grid capacity for electrification) until a later date could leave consumers who upgrade later paying for the transformer upgrades (high cost).
- There are current efforts underway to understand where grid capacity exists.
- The group expressed mixed perspectives about who’s responsibility it should be to upgrade transformers.

- Balancing the load by using a statistical model could lower the amount of infrastructure needed in the electrical grid. Let's not oversize the system unnecessarily.
- Xcel could use smart panels that would give them more control over the loads being drawn by different households.

The group conducted one more ranked choice activity after the discussion with the following outcomes:

1. Develop Electrify Now campaign
2. Develop commercial rebates and incentives
3. Explore split incentives
4. Expand weatherization programs to include electrification
5. Support transformer upgrades
6. Additional contractor and installer education

Final Thoughts

- Moving the meetings to in person could benefit the team allowing for smoother discussions.
- Link to grid presentation from Ann:
<https://brainshark.com/xcel/BEGridWebinar>