

ComEd Income-Eligible Electrification Working Group Meeting

October 3rd

10 – 11:30 am central

Introduction and purpose:

- This working group is a continuation of the workshop series some organizations participated in this summer
- Monthly meetings as an opportunity for the various organizations working with ComEd on income-eligible electrification to share information about what is working, what isn't working, how things are going, new opportunities or learnings, and ask questions of each other. We're just holding the space to continue the collaboration and conversation from the 3 workshops.
- Other meeting dates on calendars already - please ensure at least 1 representative from your organization is in attendance. Also please let Molly Graham know if you have new colleagues that need to be added to the distribution list for this group.
- Use this group as a sounding board and opportunity to crowd source ideas to work through barriers or struggles.
- If you have topics to suggest, questions to pose, or ideas for future meetings please let Kara Jonas or Molly Graham know.
- Invited orgs:
 - BlocPower, CEDA, Chicago Bungalow Association, CLEAResult, CMC Energy, ComEd, Elevate, Franklin Energy, Guidehouse, Illume, MEEA, MN CEE, Resource Innovations, and Slipstream

Franklin Implementation Update:

- Progress to date:
 - MF bill impact calculator draft complete
 - Data collection/assessment prep complete
 - Customer screening for ideal characteristic identified
 - Initial customer leads secured (reach back opportunities & warmer relationships to pitch electrification)
- Built out a more detailed customer journey process (not fully baked yet, looking for feedback from the group)

Discussion: Customer Journey



- Generate leads (a lot of reach back customers from previous programs) with some customer screening. Giving customers a sell sheet with costs, benefits, and ideal building type, generic bill savings
- Electrification assessment (bill impacts calculated after assessment)
- Customer report (measures, bill impacts, costs and incentives, review and refine measure package)
- Contractor scopes which help update the customer report with specific costs (open question on if they will have multiple contractors bid on the work or if they'll hand the project to a specific contractor to be the lead. Leaning towards the multiple contractors bidding option)
- Finalize incentives and application (Franklin thinks there needs to be some sort of contract signed between the customer and Franklin)
- Dave - for the customer journey from beginning to end, how long do we think this would take?
 - Jim - going to vary case-by-case depending on the work and the property, I wouldn't put a timeframe on it
- Brad - can they do phasing of electrification? Partial electrification instead of full?
 - Yes, just need to ensure the bill impacts pencil out for various phases. Need to think about if there needs to be a customer commitment to continue various phases of electrification
 - Kara - stipulation says pursue electrification to the extent feasible, so it allows for some wiggle room if it's not practical to fully electrify all end-uses. It's a little vague but at least provides some flexibility
- Measure Costs & Incentives
 - New table is a first pass at the measure costs and incentive ranges - ranges are pretty big, Franklin would love input from the group to refine the ranges based on their data
 - This is a first pass to help inform customer expectations, the table will be refined over time

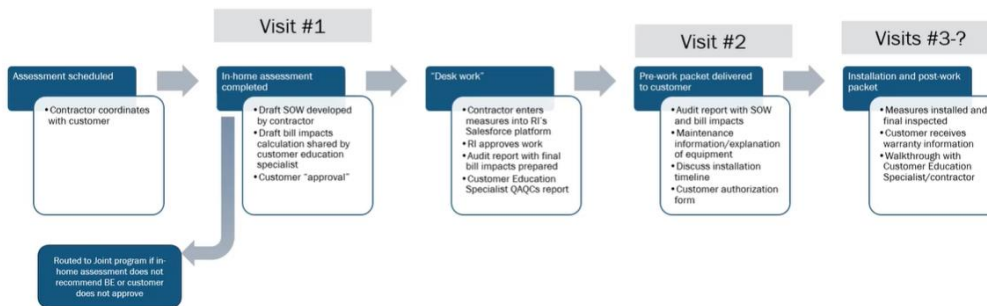
- Displaying Savings:
 - New table to help customers visualize bill impacts, this is a first draft and will be refined. This would be included in the customer reports.
- Julie - are we calculating savings at the tenant level AND the building level? The tenant level is important for stipulation, but the building owner will want to see aggregate, especially for their portions of the energy bills
 - Jim – This comes down to who is paying which bills. The importance is the tenant savings, we're not factoring in shared spaces and this is something we've struggled with internally. Agree with the premise that we need to make the business case for the property and it's not just about tenant spaces. NEBs will be included in the report that the building owner receives

Resource Innovations Implementation Update:

- Initial customer journey mapped out:



Post-Intake Customer Journey



Confidential

- Customer education specialist will be onsite
- Home visit #1 will include a draft SOW by the contractor and initial bill impacts estimate. The customer will give their first 'head nod' on the project to ensure alignment with the initial plan
- Move on to approval, contractor will enter measures into RI's salesforce and RI approves
- Visit 2 includes audit report, timeline, and SOW discussion with customer and customer signs authorization form and contractor will take over. Weatherization contractor will serve as GC for specialized trade allies
- Visit 3 includes a final walk through with customer specialist and contractor
- Anura serving as the electrification contractor, they already know a lot of single family customers that use propane and have hired some additional staff to help

with that outreach. ComEd is also providing RI with a list of former HEA customers who have propane

- Start assessing mid-October
- CMC hiring up and ready to conduct 100% field QA/QC starting in 2022
- Having some good chats with CEE about EM&V on heat pumps
- Thinking about coordinating the various parties to ensure there aren't negative customer impacts
- Savings calculator has been approved and is being integrated with Salesforce platform but customer-facing bill impacts calculator under review with ComEd
- Might have data as soon as November to share
- Believe marketing/education tools need to be refined around electrification
- Working with Elevate as customer education specialists for 2022
- Julie - For the partnership with Anura, is that short term?
 - Not the intent to maintain a lone contractor relationship in 2023 and beyond
- Reaching out to heat pump manufacturers to get a better sense from them who is doing good work with their products - Wx contractors might not have the HP experience so doing some initial matchmaking
 - Pauravi - would list of contractors that have gone through the HP training be helpful?
 - Jessica - yes, our goal will be to share who has participated in those trainings, will dig those up and share
- Items Resource Innovations is wondering about:
 - What do we need to do to prep for submitting data to eTrack in November?
 - Kara - Won't have eTrack ready for electrification efforts this year. The data file will still be sent to ComEd, it just won't be validated by eTrack, ComEd will submit the data to Guidehouse for evaluation. The configuration of eTrack is underway and should be ready for 2023
 - Can we give out gift cards for pots and pans this year? Don't want this to be a barrier for homes, \$150/home should cover it
 - Molly - thinks budgets can be used on cookware, just don't know if it will count as an incentive cost (maybe it will be marketing \$ since there's no savings associated) especially during the first year or two
 - Illume is supporting research on the barriers to induction stove adoption, specifically around purchase of cookware and will have more information to share in a few months
 - Who has customer facing education tools? What can be repurposed for 2022?
 - Web resource on customer facing material being developed right now, don't have much to share on this yet, but it will be focused on heat pumps and they will add more technologies next year
 - Elevate also working on some customer education tools that could be shared in the next month or two

- Resource Innovations needs support on:
 - Bill impact analysis (post installation) - is this needed and who should lead this?
 - Not something ComEd is currently required to do, but might be a nice research activity down the road
 - ComEd R&D looking at adding bill impacts analysis to CEE's scope
 - R&D for customer engagement – can someone build a toolkit?
 - Who can introduce us to heat pump suppliers? This would be helpful for 2023 and building out additional contractors

Elevate Pilot Update:

- Almost done with 14 single family units and scheduling construction for an additional 24 SF retrofits by the end of the year
- Elevate partnering with CBA to find homes, which has been really helpful
 - Customers have been excited about electrification and the trust that CBA already has with the customers has been a great partnership
- 16-unit MF property in Chicago underway, partnering with Franklin to do reach back
- Risks and challenges affecting timeline: service upgrades delayed because of supply of meter sockets (delaying 3-4 months) in single family
 - Phasing equipment and then waiting for the final piece of meter socket equipment to finish the project
 - Heat pump equipment about 6-8 weeks to receive, which is an improvement from the past
 - Multifamily owner timeline capacity approaching winter months, they're delaying work until next year
 - Kara – I hadn't previously realized that tenant relocation was included in these projects, which is more costly and takes additional time, so I'd like to flag that for the rest of the group
- Julie – wanted to call out that Chicago Bungalow Association is funding the purchase for cookware and cages for outdoor units
 - Mary Ellen – yes, the cages for the outdoor units are an important security feature
 - Resource Innovations has cages as an approved health and safety measure

Slipstream Research Initiatives:

- Electrical infrastructure research:
 - Can confirm that the meter socket supply issue that Elevate raised is a significant issue that contractors are reporting
 - Conducted some modeling to help understand what type of service is needed for electrification. Roughly 2/3 of ComEd customers have 100-amp service, which will support a few measures (probably only 2 measures)

- Found 200-amp service adequate for most homes unless they have an EV charger, then might need to go to 400 amps or install circuit sharing technologies
 - 100 amps is not enough in almost all cases for full electrification
 - Costs vary widely, really hard to come up with an average project cost because there are so many variables
 - Seen invoices for \$1,300 – 15,000. \$3,000 seems typical for single family. Multifamily will cost more because the hardware is more expensive when you get into multiple meter banks
- Propane space heating research:
 - Finding customers in ComEd territory with propane space heating and gathering additional data to understand them
 - The first objective is to quantify ComEd customers with propane heat and find where they are located
 - Slipstream wants to also better understand the customer experience with propane - how they're billed, the value proposition, advantages/inconveniences
 - Identifying partners to engage with who can help build relationships with propane customers
 - Creating customer archetypes
 - Talking to other electrification programs who have had success
 - Methodology:
 - Conducting interviews (business partners, propane distributors, electrification programs)
 - Geographic analysis
 - Conducting secondary research (EE industry papers, propane provider resources, other sources?)
- Heat pump contractor training
 - Mostly focused on SF homes
 - Started training in 2021 and goes through spring 2023
 - Variety of training options across the supply chain
 - Resources:
 - Webpage
 - LMS to host on-demand content (4 modules developed, 2 in development)
 - Train-the-trainer events
 - Lunch and learns
 - Direct company training
 - Student engagement
 - Cost of heat guides in development for contractors to find ROI
 - Working with skeptical contractors to give them a heat pump to install in their own home to get comfortable with the technology

Illume Customer Communication Research:

- Customer survey was launched, and they have about 156 responses. Illume is working on analysis and will share a report next month

MN CEE Monitoring Initiative:

- New monitoring work to understand heat pump performance to inform more confident bill impacts estimates for customers. Working with Resource Innovations to overlay some monitoring on HP installations to understand the baseline performance and provide some real time feedback to the program, help identify good and bad performers and understand why performance may be less than ideal
 - Will help inform iterative process to improve heat pump performance in the program going forward

ComEd market research has some electrification findings they can share in the November meeting