**EER PROPOSAL REQUEST – Draft Idea to circulate**

**From HP Action Group – Mfr, Dist, & Industry Stakeholders (MDS)**

**As of 9/28/22 , EEBC**

**As of 10/3/22 Matt Baker, Daikin Edits in red**

**From the Friday meeting at GA:** This is the hot topic for intervening in the 2023 DSM Plan rebate program with Xcel Energy/PUC going forward. It is the EER score: “how to remove EER requirement for variable capacity heat pumps (VCHPs) by finding and proposing a new model to replace EER”.

PURPOSE:

* Call to ask if HPAG members want to participate in a joint EER Pilot Study/Research Project proposal in Xcel Energy’s settlement process to modify or propose new rebate programs?
* Deadline for draft proposals is this Monday, Oct 3rd. Patricia is reaching out to the HPAG Co-chairs to frameup the below concept, edit, and pre-approval from their companies. Then bring together the group of mfr, dist, and contractor/dealer who have been informally discussing as a group with Xcel this year.
* Directly related to HP Forecast by 2030 work with RMI – include objective?
* Ask for: 1st their $3600 membership to participate, if not a member. 2nd, pitch in with special initiative funds to cover additional legal/staff costs.
* See attached:
	+ Roadmap to Intervene
	+ How to write and organize your proposal
	+ Template to draft your proposal
	+ Tracker of Proposal Ideas to Date – originally from Howard

BACKGROUND
At the Denver CASR HP Rebates Feedback Session on Friday, 9/23, at GA Larson, Ann from Xcel mentioned their HP Program Manager’s “EER Challenge” to the HP Manufacturer members at a March meeting about lowering the EER. They said, “Reducing EER is very unlikely…Feel free to bring alternative models to us demonstrating how to replace the current EER model and we’ll look into it… we just don’t (or won’t) have time to do this.”

I’m proposing an interim solution, starting now and completing before the 2024-06 DSM Plan Settlement Process. The proposed solution is to ask the PUC to require Xcel to conduct their own study to find an alternative path(s) to claiming peak demand savings for VCHPs, other than using EER (since EER is not a fair or accurate metric for VCHPs).

This will position EEBC HP manufacturers (mfrs) to give us time to gather data, and will push Xcel engineers to evaluate while positioning EEBC for a stronger request/proposal in the 2024-26 DSM based on Xcel’s own findings collaborating with the field experts – EEBC international mfrs. The 2023 DSM proposal is an interim solution since, as the mfrs have so far found that there is no “slam dunk” existing EER model for our cold weather climate. What about we intervene with an interim solution to close the gap between Xcel and EEBC’s mfrs: A local Colorado pilot study with a **“10 HP Pilot/Research Project”?** All of these concepts were discussed and verbally suggested to be committed to by the mfr last Friday.

INTERVENE with a “10 HP Pilot Project/Research Project” Overview:

* What solving for? The majority of the HP Mfr’s ccHPs (cold climate heat pumps) are not eligible for Xcel rebates. This higher performing more expensive HP category provides the most efficient HPs and energy savings to Xcel, but they are not eligible due to the programs high EER requirements. As a result of those high EER requirements, contractors are incentivized to sell and install single speed HPs with higher overall energy use that don’t operate at lower ambient temperatures, providing lower overall energy savings to Xcel and fewer demand savings to the grid. A contractor quote, “the HP program is only for the Rich”.
* Xcel has stated that “they don’t have time to do the research for an EER alternative solution, but if we [EEBC, HP manufacturers, distributors/dealers] provide them the data they will look into it”. If they are not legally required to do a good faith, full analysis, and find a solution, will they? I recommend we don’t expend our EEBC member company’s resources to this end unless we are guaranteed a thorough effort. Just as we wouldn’t ask Xcel to figure out how to engineer equipment with higher EER performance, Xcel should not ask HP manufacturers to figure out how to claim peak demand savings without using EER. This is their job and they should address out of interest for overall grid reliability and in an effort to advance adoption of the highest performing HPs possible (VCHPs).
* If the PUC opts to not require Xcel to complete this proposal, then EEBC will recruit a 3rd party research group(s) to take on this research project for a solution to share with Xcel.

INTENDED OUTCOMES

* How EEBC members drive this project and participate. 10 HP mfrs conduct a 10-unit study – 5 raised their hands and have HP in their own homes, or their employees have one, or they would pay employees to have an HP installed in their home.
* All HP mfrs and 3rd party- utility implementers provide relevant EER data from the field nationwide and internationally to Xcel to evaluate a new alternative model to EER.
* Likely include the HP Forecast modeling being done with EEBC and RMI. To validate the need to remove EER for Xcel to reach its carbon-free goals by 2030.

POSSIBLE SOLUTIONS

* Determine alternative pathway for Xcel to claim peak demand savings through incentivizing VCHPs instead of merely chasing EER.
* Model a second scoring system that will accomplish what EER does for Xcel but is specific to variable speed/inverter technology only (constant low cycling; considering impacts of in-rush current from non-inverter equipment; utilizing AHRI 1380 for partial load DR). Keep current EER separate from this new variable-speed model for single- or two-stage equipment (on and off cycling).
* The goal is that Xcel’s HP program managers are required to expend staff time or hire a research/analytics firm (“consultant”) as a repository for the market data and research provided by EEBC members and others. EEBC provides data from real-world realities from field experts vs only internal research by Xcel.