

2024 On-Site Energy Storage Stakeholder Report

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Summary of engagement process

The goal of our stakeholder engagement was to receive input on how to implement an effective on-site energy storage grant program. In February and March of 2024, the Department of Commerce hosted five virtual engagement sessions, received written input online, and met with the Tribal Advisory Council on Energy. There were five targeted groups: storage industry/installers, environment and equity advocates, small businesses/entities, utilities, and Tribal Nations. We had 70 stakeholders participate in the virtual sessions, 11 attendees at the Tribal Advisory Council on Energy meeting, and 15 written comments submitted. Meetings began with a brief presentation that overviewed the state statute, information about storage in Minnesota, Xcel's draft storage program, and programs in other states. Attendees were then asked a series of questions focused on incentive amounts and tiers, potential road blocks, and implementation. The written form followed the same questions as in the presentation. The following report highlights key topics that were discussed, areas of general consensus, and areas of disagreement. Detailed engagement session notes can be requested by email: sally.bauer@state.mn.us

Input by topic area

Incentive levels

There were varied responses on the right incentive level to motivate people to install storage. Several respondents recommended numbers in the range of 40-60% of installation cost. A \$5,000 incentive came up most frequently with a \$10,000 incentive level also mentioned. One commentor indicated that when people don't understand the benefits of storage, they will need the entire incentive paid (\$1,000 per kWh).

Stakeholders grappled with the challenge that higher incentive levels may increase interested participants, but the available money would deplete faster resulting in fewer installations. One commentor indicated that having more grants (smaller incentives) would give a greater opportunity to gain experience with storage.

The high cost of storage (\$15,000-\$25,000 for an average residential system) was brought up many times. Commentors felt given the high cost, a larger incentive may be needed to drive action. Small businesses were also mentioned as needing a higher incentive to participate. A commentor brought up that outside of the metro area will have more lower income households requiring a higher incentive. Another stakeholder mentioned that battery storage will need to be more cost effective than standby generators to increase rural adoption. One commentor recommended having incentives large enough to support the 50kW storage on public interest buildings as a test case suggesting this could spur further interest and investment across the state. Another commentor recommended using funds to support resiliency hubs.

There was a general consensus that even with an incentive, storage does not have a great return on investment. At this point of storage adoption, most people are adding storage for resiliency (protection from power outages). One commentor suggested considering how individuals value resiliency when determining the incentive amount. Several stakeholders argued that the best payoff is to use during peak times and charge off peak. Further, they shared that time of use rates will impact interest and cost

savings from battery use for customers as well as pay back. Another stakeholder mentioned that demand charge savings for business could help with savings as well.

Some stakeholders believe incentives will not be effective without being integrated with programs with other benefits such as utility demand response programs. There was a suggestion for Commerce to partner and run pilots directly with utilities who offer their own storage programs. Other stakeholders do not want incentives tied to utility-based programs and feel this will complicate the program.

Numerous stakeholders noted it would have been helpful if the goals of the program were more clearly laid out in the statute language. They wondered if the goal is simply to get more storage out there, if it's for grid benefit, or other goals. Stakeholders felt a clearer goal could have helped influence feedback around incentive amounts and potential tiers.

During the five stakeholder meetings, attendees were asked to vote whether they prefer smaller incentives going to more people or larger incentives going to fewer people. Poll results indicated that storage industry/installers were the only group that preferred smaller incentives, all other targeted groups preferred larger incentives.

Tiers

In the presentation and written form, Commerce suggested the potential of having various incentive tiers for different groups including: low and moderate income (LMI) households, Environmental Justice Areas (EJA), vulnerable/medical needs, and customers with frequent power outages.

There was consensus across stakeholders that low and moderate income (LMI) households would need larger incentives in order to participate in the program. It was also brought up that many LMI households would not qualify for the federal tax credit as they would not have a tax burden. Specific numbers that were mentioned by commentors were 80%-100% for LMI. More than one commentor highlighted that if there are not significant incentives for LMI households, this program will be geared to higher income households.

Numerous commentors brought up the challenge that this program is tied to solar. They highlighted that the benefits of storage are still present even when not tied to solar. As a result of the solar requirement per statute, stakeholders feel it will be more difficult to find LMI households to participate in the storage program. Stakeholders brought up the need to pair this program with support for solar installations if targeting LMI households. One utility mentioned their LMI community who participate in solar do so through community solar gardens which would still exclude them from participating. One commentor believes there may be a workaround from the statute language to not require the storage systems be tied to solar. One commentor indicated they normally would advocate for higher incentives for LMI, but felt there were too many barriers for LMI households to participate (solar requirement, high cost for installation, and relatively small funds available) and suggested this program focus on decarbonization benefits.

There was less consensus on the other areas of potential tiers. Some commentors felt targeting areas with greater power outages should be a top priority as it would most benefit the participant, however others felt it was the responsibility of the utility to address power outages and difficult to ascertain who

would qualify. Two commentors mentioned Environmental Justice Area (EJA) communities as a focus area. Targeting those with medical needs was also discussed.

Several commentors thought it would be better to have fewer or no tiers to start this program in order to keep it simple and easier to educate as storage is still in the early adoption stage. There were also concerns about large incentives leading to fewer people benefiting from the program. They felt the goal of the program should be to deploy as much storage as possible, prove the case for storage, and that targeted communities could be addressed in future iterations of the program.

One commentor drew attention that we should make sure the funds are available for the tiered groups, perhaps offering access to funds for certain groups before others or maintaining funds for certain groups. This would ensure funds don't get used up too quickly before all groups can take advantage.

In meeting with the Tribal Advisory Council on Energy, it was brought up how Tribes are disproportionately impacted by energy insecurity and underserved in resiliency. They suggested that some Tribal communities would really benefit from storage where there is poor quality power and frequent outages. Incentives would need to be larger to allow for affordability. A carve out specific to Tribes was suggested as a way to ensure Tribes have the opportunity to participate. One commentor highlighted that if a carve out is offered, it should not be divided by population as that could leave some Tribes that most need it without enough funds.

Barriers

A variety of barriers were brought up in our stakeholder sessions as well as potential solutions to overcome these roadblocks. One stakeholder suggested that small businesses will need higher incentives, but also suggested Federal programs like the Property Assessed Clean Energy (PACE) program could be helpful. One commentor said it can be difficult for cities that have multiple different utilities in the same area where some buildings qualify for Xcel programs and others not (for example Solar on Public Buildings).

There is consensus that a lot of education will be needed and likely technical assistance offered, in particular to reach LMI communities. Another stakeholder brought up that additional upgrades may be required such as electrical panels which could increase barriers for LMI households. One commentor also highlighted that LMI communities don't have the time to invest in researching and applying. As such, technical assistance and a simple application process would help. Another barrier brought up for LMI households was that many won't have the tax appetite to receive Federal tax credits.

Some commentors brought up that there are fewer qualified contractors in Greater Minnesota. They suggested workforce development will be needed with a focus on LMI and EJA areas. One stakeholder also mentioned lacking trust in dealing with unknown vendors. Numerous stakeholders brought up the significant upfront costs being a barrier. Finally, the solar requirement, as earlier mentioned, remained a key barrier brought forward by stakeholders.

Similar or different to the Xcel program

There was no consensus on whether the program should be the same or different from Xcel's program. Some stakeholders feel consistency across the state would be valuable and make education easier. Stakeholders suggested consistency will reduce confusion and enable websites that offer tools on incentives to be accurate. One commentor believes keeping it the same across the state will drive higher adoption. Another commentor said that it'll be better received if it appears fair and equal to everyone.

Other commentors felt the Xcel incentive rates are inadequate. A suggestion was made of using Xcel's program as a baseline and sharing technical requirements while incentive rates could be different. One stakeholder pointed out that most people in Greater Minnesota are not familiar with Xcel programs so there are not benefits or disadvantages to the programs being the same. Another commentor highlighted that having a different program gives the opportunity to test different strategies and figure out what works best.

Program features and support needed

Many ideas were suggested for additional supports and/or programmatic choices that could make the program run more effectively.

Programmatic ideas

- Loan options at low or 0% rates
- On bill financing
- Linking to existing and new solar incentive programs
- Finding a simpler payment system than the current State vendor process
- Being clear on what measure the size of the system is based on, as the marketing for kWh doesn't always match the actual
- Being flexible and modifying the program if not successful at first
- Incentive going directly to installer or utility to reduce upfront cost and simplify for consumer
- Being transparent about funds remaining
- Training for contractors and/or a list of contractors that have experience with storage installation
- Technical assistance through the process
- Coordinate with utilities on implementation and tie to utility programs
- A website where all utility programs and rules are listed
- Requiring installer certification
- Ensure all battery manufacturers can be eligible
- Installer and consumer education
- Keep the program and application process as simple as possible
- Incentivize utilities to run their own storage programs to increase adoption

Outstanding questions

- Would EV to grid be considered energy storage?
- Would there be a way under statute for a community solar garden participant to receive an incentive for storage?

- How will metrics on the program be reported publicly? Data such as costs, capacity installed, intended uses, etc.
- Will the incentive be retroactive?
- Will the program be limited to certain manufacturers, require certain warranties, etc?

Outreach/Resources

There was consensus that education and outreach will be a critical element for program success. Below are suggestions for outreach, targeting, and information to be shared.

Methods of outreach

- Creating a central location for information from all utilities
- Public-facing webinar
- Better webpages
- Simple decision-making tool / primer
- Projects in public spaces can be used to raise awareness of technologies and advertise program
- Bulk buying options like Solar United Neighbors
- Bundle programs as one package or a menu of incentives
- Partner with Community Action and Community Based Organizations to market
- Simple messages for social media, bill inserts, utility newsletters, or websites
- One pager promo
- Calculators showing total cost and return on investment for clean energy programs

Groups to target

- Individuals who value resiliency and reliability
- Community nonprofits, rural grocers, health providers
- Individuals and entities that are already using gas backup generators
- Individuals who already have existing solar or EVs
- Early adopters
- Those that worry about power outages or are more frequently impacted by power outages

Information to be shared

- How to find a good installer
- Terminology document/glossary of terms
- How will it integrate to a system
- Eligibility requirements
- Benefits of storage
- Frequently asked questions
- Administrative assistance available
- Timelines
- Other incentives (solar, electric panel, etc)
- Outline the value proposition for owners
- Data and reporting on performance and update
- Frequent (weekly or biweekly) updates on funding availability