



# Minnesota Solar Energy Industries Association

We Move Minnesota Solar + Storage Forward

## What is Energy Storage?

Energy storage captures and stores energy for later use. It comes in many forms, from batteries in peoples' homes or their electric vehicles, to large-scale utility batteries that help power our grid. In the transition to clean energy, energy storage plays a critical role.

## Benefits of Energy Storage:

- Reduces energy costs for storage users and ratepayers.
- Pairs well with all types of energy - from solar and wind to coal!
- Excess energy generated by solar panels during the day can be stored for use at night or when the sun isn't shining.
- Storage enhances the reliability of the electrical grid. During peak usage hours (during a winter storm when customers turn up their heat, for example) storage can prevent stress on the grid and potential blackouts.
- If the power goes out, a home with energy storage or even an EV can turn their house into a "microgrid" and keep the lights on. This is especially important for hospitals, schools, and other critical infrastructure.
- Storage technology keeps improving while prices have been significantly dropping, making it more accessible for Minnesota homeowners, businesses, and utilities.



## Minnesota Utilities are Embracing Storage



- Xcel Energy is planning to partially replace their SherCo coal plant with a solar + storage project. The unique iron-air storage will store 1,000 megawatt-hours of energy, allowing Xcel to deploy the captured energy when they need it most.
- In Ramsey Township, MN, Connexus Energy has 3.5-megawatts of solar and 5.3-megawatts of lithium-ion energy storage.
- In Grand Rapids, MN, the Grand Rapids Public Utilities has a 2-megawatt solar array with 1-megawatt, 2.5-hour lithium-ion energy storage battery.