

Making a Difference with School Solar

Winter Storm Uri blew through Texas in February of 2021 blanketing the entire state in sub-freezing temperatures, ice, and snow. As Texans cranked their heaters up to battle the cold, demand for power reached an all-time high. At the same time, wind turbines, natural gas pipelines, and generating plants froze, causing power generation to decrease. Power grids are complicated systems that must always remain in balance with generation meeting demand. The Electric Reliability Council of Texas is responsible for maintaining this balance. Once demand exceeded generation during Winter Storm Uri, ERCOT was forced to mandate rotating outages across the state to prevent a total power blackout. The rotating outages lasted 4 days, leaving millions of people exposed to freezing temperatures with little to no heat, and approximately 250 people died due to the cold weather (Roy).

To prevent this same type of tragedy in the future, it is imperative that we continue to find ways to improve the stability of the power grid. Texas is the leading state for energy consumption due to its sheer size and population (Schools: An Overview of Energy Use and Energy Efficiency). As the top energy-consuming state, Texas and its residents have a duty to play a part in using electricity efficiently and responsibly. One way to do this is by taking steps to generate electricity for private use separate from the power grid. If I could change one thing in my community, I would petition my school to install rooftop solar panels to reduce our consumption of energy from the power grid.

According to a recent study published in Environmental Research Letters, researchers found that “taking advantage of all viable space for solar panels could allow schools to meet up to 75 percent of their electricity needs.” Additionally, Texas along with California and Florida “have the greatest potential for generating electricity from solar panels on school

rooftops” (Stanford University). Therefore, I believe solar energy would be the best energy source for my school district to become energy self-sufficient. One of the biggest complaints about solar energy is that solar panels take up too much space and make the environment ugly. Installing the panels on the rooftops of the school buildings would not only take up no additional space but would also allow the panels to be effective without altering the school grounds. Additionally, the placement on the roof would provide the panels with direct access to sunlight.

As a Texan community, it is our job to play a part in strengthening the stability of our power grid. My high school is most likely one of the top energy consumers in our area because of the sheer size and age of the facility. Even though the number of buildings requires a tremendous amount of energy to power, they offer substantial roof space for solar panel installation. The power the solar panels generate would be funneled directly into the school resulting in less energy being taken from the power grid. By producing its own energy at the school, our community could play a role in reducing some stress from the power grid. Additionally, the installation of solar panels could encourage other local businesses and surrounding cities to follow suit and implement their own self-sufficient energy sources.

In short, the addition of solar panels to our local high school would decrease our community’s contribution to the state-wide power grid. Lowering our energy usage could, in a small way, help reduce the strain on the power grid and consequently, help prepare the grid for future misfortunes. Even though our community isn’t the biggest, change must start somewhere, and Wharton County is the perfect place to start.

Works Cited:

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