Questions from the Community

Project Overview: Proposed 1.2 MW DC Solar Array - Portage Area School District

The Portage Area School District is exploring the option of installing a ground-mounted solar array on its campus. This array is intended to offset the District's electricity demand, stabilize future electrical costs, and provide educational opportunities for students. Projected savings from this solar initiative could help fund a proposed boiler and controls project.

Given the public's interest and involvement, the District has compiled questions from School Board and Facilities Meetings to prepare the following FAQ. For additional questions, please contact the District at dmoschgat@mustangmail.org.

Q: Why does the District want to transition to solar energy?

A: The District is considering solar energy for potential long-term cost savings and educational benefits. Our conservative savings estimate, provided by our energy service partner McClure Company, exceeds \$3 million over the project's lifespan. McClure guarantees energy production based on conservative projections. Additionally, the project offers educational benefits, such as hands-on learning in energy production, sustainability, and agricultural integration.

Q: How affordable is the system?

A: There is no upfront cost for the solar project. The District intends to enter a Power Purchase Agreement (PPA) with McClure. Through this arrangement, McClure will design, permit, finance, and install the system at no upfront cost, then sell the electricity generated to the District at a fixed rate, which is lower than Penelec's retail rate. The District saves on energy costs, which can be reinvested into other District needs. The PPA is expected to last 30 years, with McClure responsible for operation and maintenance throughout the term. At the end of the contract, the District may choose to extend the PPA, purchase the system, or have McClure remove it.

Q: How will the savings from the solar project benefit the District?

A: The District prioritizes funding programs that support student success. Savings generated by the solar PPA could offset costs for critical infrastructure upgrades, like the proposed boiler and controls project, while also freeing funds for additional improvements over time.

Q: Will students be involved in the solar project?

A: Students will not participate in the construction of the array. However, upon completion, students will benefit from a kiosk and data portal that provide real-time information on energy production. This data can support math and science curricula, allowing students to analyze the effects of weather and other factors on solar output.

Q: Will the solar array cover farmland?

A: No, the array will occupy approximately 3 acres of wooded land behind the school. It will be a fixed-tilt, ground-mounted system, supported by piles driven into the ground. The array's "coverage" will be

limited to these piles and equipment pads. The surrounding area within the fence line will be planted with a pollinator-friendly seed mix that includes Pennsylvania native grasses and wildflowers.

Q: Are there guarantees for energy production?

A: McClure guarantees energy production based on local weather data and component performance. They have forecasted energy production for the site and offer financial assurances for guaranteed savings.

Q: What happens when the solar array reaches the end of its life?

A: McClure will file a Decommissioning Plan with the Township as required. This plan, which includes financial assurances (like a bond) to cover decommissioning costs, ensures that the site will be returned to its original condition once the system is no longer operational. McClure will be responsible for the removal of solar panels, racking, electrical equipment, and buried wiring. Estimated costs are approximately \$375,000.

Q: Does the solar array produce any noise?

A: Solar panels operate silently, as they have no moving parts. However, auxiliary equipment such as inverters and transformers may produce a low hum. This sound is comparable to a refrigerator (50-65 decibels) and is generally only audible within 25 to 50 feet of the equipment.

Q: Will the District be completely independent from the grid?

A: No, the system will remain connected to the grid for reliability. The array will feed excess electricity to the grid and draw from it when solar production is low. At the end of each year, the utility reconciles our usage, allowing us to generate up to 112% of our average electricity needs.

Q: How does the ground cover under the solar panels affect water runoff and soil health?

A: The site will be planted with deep-rooted native grasses and wildflowers, which improve water infiltration and stabilize the soil. The township will require on-site stormwater management as part of the project's permitting process.

Q: If student enrollment grows, could a new building be added without affecting the solar array?

A: Any plans for new construction are speculative and depend on future enrollment data. Current facilities studies will provide more information. We are not allowed to "overbuild" the solar array beyond current needs, but future options may include more efficient panels or additional installations if needed.

Q: Have rooftop solar panels been considered?

A: Rooftop panels were not extensively considered. Installing rooftop panels mid-life complicates roof warranties, and our rooftops lack the square footage to meet the District's energy needs. Roof-mounted systems also typically increase insurance costs.

Q: Who will maintain the solar array?

A: McClure will be responsible for all maintenance throughout the agreement term.