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## **District Facilities Solar Energy Principles and Guidance**

The following criteria express the goals and considerations SPPS envisions for a solar energy installation.

### Financial Benefits

Energy efficiency projects, such as lighting retrofits, typically payback in less than 5 years. Therefore, SPPS requires that solar installations be cost-effective and fiscally responsible in light of the other low-cost or even no-cost energy saving opportunities available.

- The District would require that 100% of the solar energy generated by the solar array be available for use by the building. This would reduce the impact of the discounted rates applied by Xcel Energy for the energy produced.
- Most District buildings are on a Peak-Controlled rate structure where rates are kept low and in return, the buildings will curtail when the electrical grid is approaching capacity (typically, during hot and humid weather). The District benefits greatly from this utility rate structure and would want to ensure that this benefit remains in place.

### Maintenance/Ownership Implications

Most Community Solar Garden (CSG) subscriptions last 20 years or longer. In 20 years, a building can undergo many changes such as additions or renovations, program or occupancy changes, maintenance activities, and even changes in ownership. In the last three years alone, the District sold a property, bought a property, completed major capital projects at eight properties, and ended leases on a few properties. Long-term contracts are something that need to be analyzed from all angles to avoid future pitfalls.

- In the case of a CSG, the solar array must be maintained by a 3<sup>rd</sup> party and the funds to do so must be secured by a bank in escrow. It needs to be made clear to the District who the point of contact will be for maintenance related issues or in case of an emergency (e.g., storm damage).

- Roof maintenance and design is also a factor. The most recently adopted MN building code requires roofs to be able to withstand much higher snow loads than in years past. As a result, many SPPS roofs would require additional structural support prior to a solar panel installation. Panel locations shall align with the District's roof maintenance plan and shall cause minimal disruption to existing structures.
- When locating a solar panel array, it cannot be easily accessible by unauthorized personnel and cannot be in a prominent area that may detract from the aesthetics of the building.

### Legal Considerations

In the case of a CSG, items of concern are:

- Length of subscription
- Tax implications of subscription
- Solar panel array underperformance and who would be responsible for necessary corrections
- Contract ownership/management and what happens if the array is bought, sold, and/or traded
- Solar panel ownership

### Environmental Impact

As one of the largest school districts in the state of Minnesota, SPPS recognizes the importance of conserving resources and protecting our environment.

- All electricity and natural gas used within District buildings is purchased from Xcel Energy. Xcel Energy has made significant strides in incorporating renewable energy, in the form of wind and solar, into their energy portfolio. The District is interested in reducing greenhouse gas emissions associated with natural gas use, since the electrical grid is getting "greener." Solar thermal would be a viable option for reducing natural gas consumption and has a more desirable payback compared to PV.
- It will need to be clear who owns the Renewable Energy Credit (REC) for the solar installation. In the case of a CSG, typically the utility receives the credits.
- Being a public school district, the project should include an educational component to foster environmental stewardship.

Meeting these criteria is necessary for the District to have an efficient, effective, and manageable solar program that is fiscally prudent and in the overall best interests of the District.