Frequently Asked Questions About Solar:

Q: How does solar power work?
A: The most common form of solar power is photovoltaic, where sunlight strikes silicon crystals in the panels and creates an electric current through the panel. The electricity goes directly into the local Xcel electrical powerlines, and flows to where it is needed. The majority of the power will likely remain in the Township, which can help prevent power outages and rolling blackouts.[1]

Q: How does community solar work? Who buys the power from the solar project?
A: Community solar allows people who cannot put solar panels on their property to benefit from solar production and net-metering. Individuals pay the solar project owner for a share of the electrical output (a "subscription"). Xcel Energy pays the subscriber for their share through a credit on the subscriber's electrical bill.

Q: Why here?
A: After study, on July 13th, 2016, the Township passed an ordinance governing solar development and establishing the solar overlay district on approximately 30 acres of land at the northeast corner of Grey Cloud Island Dr and Pioneer Road, east of the cemetery. This area is some of the least developable land on the island for housing, due to the transmission lines & pipelines running through these parcels. Many other areas are ripe for development on Grey Cloud Island, including the open fields to the south of the project area.

Q: Is this an industrial project?
A: No. Typical industrial uses generate noise, traffic, waste, emissions, and other negative effects. Solar projects have none of those effects. They are more similar to a greenhouse, with some metal and glass, and fit very well into a rural, agricultural area.

Q: Will this affect my home values?
A: Solar projects are totally benign, without any adverse impacts. This project will not be visible from the surrounding areas. A study in North Carolina found that solar projects immediately adjacent to neighborhoods had no impact on price, time on market, or construction activity. Solar fits very well with residential areas.

Q: Will I be able to see it?
A: No. The site will be fully screened from view using the existing vegetation and topography, enhanced with additional landscaping and trees that we will provide. The panels will be set back at least 300 feet from any public road. That buffer area is already full of corn crops or trees. The view from the road will look nearly the same as it does now, with the exception that there will be more trees, and those trees will be closer to the road.

Q: What happens to the project at the end of its useful life?
A: All of the equipment will be removed, and the site will be fully restored. The Township will require that a bond or other financial security will be in place to ensure removal of the project at the end of its life no matter what.

What are the Benefits for Grey Cloud Island Residents?

- The native, pollinator-friendly prairie undergrowth has benefits for everyone
  - Better for crops/gardens, resulting in **more productive fruit and vegetable gardens**[2]
  - It's a more diverse habitat, which will be better for native critters
- The change in use will results in a more taxes paid on the 10 acres that are a part of this project. This will **bring additional money into the Township** of roughly $400-$600 per year.
- The locally-generated power will help with grid-reliability. Distributed solar generation can **help with power outages and blackouts**.[1]
- Every day, we all breathe the second-hand smoke of burning coal and natural gas. "…**Between 7,500 and 52,000 people in the United States meet early deaths because of small particles resulting from power plant emissions….** roughly comparable to the 40,000 people that died in car crashes in 2016."[3] This project will directly address the problem of air pollution.
  - There is no emitted mercury, ash, sulfur, and other pollutants from coal, and it avoids the destructive extraction practices of natural gas.
  - Each year, the 2,000,000 kWh this project will generate avoids[4]:
    - 16,000 lbs of sulfur dioxide
    - 10,000 lbs of nitrogen oxides
    - over 280,000 lbs of carbon dioxide
- This project will produce the **same carbon benefit as planting 17,500 trees**. A tree planted today will absorb approximately 400 lbs of carbon dioxide over 25 years[5]. A high-density forest has roughly 100 trees per acre. This small 9.5 acre project is equivalent to a **175 acre forest of newly-planted trees**.

1. http://mseia.net/site/wp-content/uploads/2012/05/MSEIA-Final-Benefits-of-Solar-Report-2012-11-01.pdf
2. https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pa/plantsanimals/?cid=nrcs142p2_018171
3. https://www.scientificamerican.com/article/the-other-reason-to-shift-away-from-coal-air-pollution-that-kills-thousands-every-year/
4. https://www.nrel.gov/docs/fy04osti/35489.pdf
5. http://www.sierraclub.org/sierra/2016-2-march-april/green-life/how-much-carbon-do-trees-really-store
6. https://www.fs.fed.us/ne/newtown_square/publications/research_papers/pdfs/scanned/ne_rp171p.pdf

MINNESOTA
SOLAR CONNECTION

345 St Peter St – Suite 1600

St Paul MN 55102

651-560-0131

- Cover photo from www.fresh-energy.org
- Back cover photo from http://www.cleanenergyworld.net

Grey Cloud Island Solar Project

Aggregate Industries and Minnesota Solar Connection

Information and Frequently Asked Questions for Residents and Neighbors

MINNESOTA
SOLAR CONNECTION