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Comment: I have lived here most of my life and it always seems cloudy. Is solar generation viable at this location? How do you know which data set to use as part of the site generation model? How can you predict solar generation without knowing the weather patterns?

> **Answer**: We use historic data from the past 30+ years (depending on the source) that is generated from National Renewable Energy Laboratory (NREL). While no one can predict the future weather patterns this data is the averages over a significant period of time used for various calculations, in our industry, solar radiance for energy production, and even in energy savings calculations as baseline data. Specifically, the software that we use, HelioScope, currently includes ground weather data from the NREL (TMY2 and TMY3), Solar and Wind Energy Resource Assessment (TMY), and DOW (EPW) where available. It also includes satellite-based weather files from Prospector, Meteonorm (Meteonorm 7 and 8), and Physical Solar Mode (v3). The specific 10KM Grid data for the site is from NREL TMY, 10km Grid (40.35, -78.65), NREL (Prospector). These data are used to determine how much solar generation can be generated based on historical data.

Comment: How can a solar array generate over 100%?

> **Answer**: McClure reviewed three years of the District's electric utility bills to identify the average annual demand. Knowing the annual average electricity use at the District, McClure designs a solar array to overproduce electricity (in this case 110%) to exceed the District's current electricity demands. The overproduction is achieved by adding additional solar panels to the array.

Comment: What happens to the excess generation? Is it stored onsite using batteries or sent back to the utility grid?

> **Answer:** The solar array is designed to produce more electricity than the school needs on an annual average. The excess generation is pushed to the grid through a bi-directional meter. During the summer months, when there are longer days and less electricity demand at the school, the meter will spin backwards, and the utility will "bank" the overproduction. In the winter, with shorter days and higher electricity demands, the school will use the summer overproduction credits. In May of each year, the utility will pay the District for any unused overproduction credits. The payment from the utility goes directly to the school, and the school can keep the monies under the terms of the agreement.

Comment: How much land is needed and why can't you provide the exact location of the proposed solar array?

> **Answer:** The preferred project location may change as required by any AHJ (Agency having jurisdiction). It is unlikely the location will move, but the boundaries may be modified to accommodate the AHJ requests. The project site may also be adjusted to avoid potential site constraints (e.g., shallow bedrock) that are discovered during project development.

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Comment: How can you predict future energy prices?

> **Answer:** McClure has reviewed the U.S. Bureau of Labor Statistics' cost of energy data set for the cost of electricity from 1979 to the present. The cost of electricity has varied over time, but on average, it has increased by 3.3% per year. Using almost 50 years of historical data, we project future potential cost increases in electricity. Realizing that prices vary over time (both up and down), we have used an increase of 3% in our projections.

Comment: What if the Act 129 rebate, Tax Credits, Solar Renewable Energy Credits (SRECs) go away? What happens to the project?

> **Answer:** Based on current legislation, here are the durations for the Act 129 rebate, tax credits, and Solar Renewable Energy Credits (SRECs):

1. **Act 129 Rebate**: This program is part of Pennsylvania's energy efficiency and conservation initiatives. The specific duration can vary, but it is typically reviewed and updated periodically. https://home.treasury.gov[1]. For the project, incentives are paid at 10¢ per kWh for retail energy usage displaced from FirstEnergy's Pennsylvania utility distribution system. Incentives are capped at 50 percent of total PV project cost, up to $500,000. https://www.energysavepa-bizsolutions.com/ Please note that McClure has preserved the 10¢ per kWh incentive based on the assumption that the project would be approved on December 2024/January 2025. If the utility determines that too much time has lapsed from the initial preservation to the time application is made, the incentive could drop by 50% to 5¢ per kWh.
2. **Federal Tax Credits (Investment Tax Credit - ITC)**: The Inflation Reduction Act has extended the ITC for solar installations. Systems installed between 2022 and 2032 are eligible for a 30% tax credit. This credit will decrease to 22.5% for systems installed in 2033 and to 22% for systems installed in 2034. https://www.energy.gov[2], https://www.energy.gov .
3. **Solar Renewable Energy Credits (SRECs)**: The availability and duration of SRECs can vary by state. In Pennsylvania, the SREC market is influenced by state policies and renewable portfolio standards. https://home.treasury.gov[3]. As a solar owner, you can earn one SREC for each megawatt-hour (MWh) of clean electricity your panels produce. Then, you can sell the SREC to utilities to count towards their renewable generation. SREC prices vary based on market conditions, but you can expect to earn $30-$40 per SREC. https://www.energysage.com

Question: After thirty years, will there be bonded money for site restoration and who will pay for these costs?

> **Answer:** Both the Site Lease Agreement and Power Purchase Agreement contain provisions that the site be fully decommissioned at the end of the project. The Project will cover the

cost to remove the system. Furthermore, the Township has regulations requiring the decommissioning of the project and a bond that will need to be refreshed every five years.

Question: Who will own the site and who will operate and maintain the site?

Answer: McClure creates an LLC to operate/maintain the site. That LLC contracts McClure for the services. This keeps both the customer and McClure at lower risk as there is an LLC in place. The customer's only requirement would be landscape maintenance/mowing.

Question: Will this generate any permanent jobs, not just out-of-town construction jobs?

Answer: The site construction will be completed in under a year. We will contract local partners to build and install the solar array. Once the solar project is constructed, there is little ongoing maintenance at the facility.

Question: Will there be a third-party reviewer to make sure that all the electrical designs are met and followed?

Answer: Yes. The electrical designs, prepared and sealed by a registered Pennsylvania Professional Engineer, are submitted to the utility for review as part of the interconnection application. The utility takes several months to review the plans and conduct an impact study of the local grid. The utility will provide feedback on the application, often with interconnection requirements. The utility may also require the applicant to pay for upgrades to the local system (work is completed by the utility).

In concert, the full set of electrical designs, including the type of solar panels, inverters, switchgear, monitoring equipment, and grounding plan, is submitted to Portage Township. The submitted plans will be reviewed against Pennsylvania's Uniform Construction Code requirements and by an independent third-party reviewer approved by the township. After the plans are approved, an inspector working for the township will make site inspections to ensure compliance with the approved plans. Upon completion of the project, both the Township and the Utility inspect the system, witness testing, and commission the system prior to allowing it to be turned on.

Question: How long does it take for PenElec (First Energy) to review the solar interconnection application?

Answer: Based on recent correspondence with the utility, review times are taking about six weeks due to the backlog of large projects the utility is currently.

Question: Will there be a third-party reviewer to make sure that all the civil engineering designs and permits are obtained, met, and followed?

Answer: Yes. When the project is initiated, McClure will engage their civil engineer to conduct environmental assessments at the site, conduct a topographic survey of the area, and install geotechnical test pits as part of the stormwater management reviews. Based on the findings from the environmental engineering review, any environmental impacts will be avoided or, if unavoidable, permits will be sought to mitigate any impacts. The site topographic data and geotechnical test pits will be used to complete any stormwater management permits that are submitted to the county or state for review and action. Concurrently, additional onsite geotechnical testing is completed to determine the type and design of the solar array racking system. The geotechnical investigation will be submitted as part of the township's building permit application for foundation designs (sealed by a Pennsylvania Civil Engineer). The Township will review the building application to ensure it meets the requirements of Pennsylvania's Uniform Construction Code as well as local requirements. All applications must be received prior to the initiation of construction, and the county requires a pre-construction site review as part of the stormwater permitting. The county and township typically inspect to ensure that the project is being constructed to specification and that the stormwater controls are performing as designed. The township and county will complete a close-out inspection and provide a list of any deficiencies that need to be addressed (if any) prior to closing any open permits.

Question: What size and type of inverter is being used for the project and what are the specific design standards related to EMF?

Answer: The proposed ground mounted solar array will rely on the 100kW high power CPS three phase string inverters based on the utility 480Vac service voltage interconnection (Model: CPS SCH100KTL-DO/US-480). The maximum DC input voltage is 1,500Vdc with a rated AC output power of 100kW and 480acV rated output voltage. The rated output frequence is 60Hz within an output frequency range of 57-63Hz. The CPS inverter meets FCC Title 47, Part 15 – Radio Frequency Device design and testing requirements.

Question: Do solar panels and inverters emit electromagnetic fields?

Answer: Yes, solar panels and inverters do emit electromagnetic fields (EMFs), but the levels are generally very low and not considered harmful.

Solar Panels: The panels themselves produce a small amount of low-frequency EMF radiation, which is minimal and comparable to common household electrical devices[1].

Inverters: These are the main components that can emit EMFs. Inverters convert the direct current (DC) generated by the solar panels into alternating current (AC) used by household appliances. While they do emit EMFs, the levels are typically low and decrease significantly with distance[21]. Proper installation and grounding can further reduce any potential EMF emissions[2].

Overall, the EMF radiation from solar panels and inverters is minimal and not considered a health risk[13].

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Question: Is there a way to limit EMF exposure from the solar array?

Answer: Yes, reducing EMF exposure from solar panels involves following the BMPs and engineering standards. The project will be designed to Pennsylvania's statewide building code, generally known as the Uniform Construction Code (UCC); this code must be followed by builders in the state. This is also the code that the Township's independent third-party reviews will review against.

1. **Proper Placement of Inverters**: Place inverters away from living spaces. The further away you are from the inverter, the lower your exposure to EMFs.
2. **Shielding**: Use EMF shielding materials around the inverter and wiring. These materials can block or reduce EMF emissions.
3. **Grounding**: Ensure your solar system is properly grounded. This can help reduce EMF emissions and improve overall safety.
4. **Distance**: Maintain a safe distance from the inverter and other components that emit EMFs. The strength of EMFs decreases significantly with distance.
5. **Smart Meter Alternatives**: If possible, opt for analog meters instead of smart meters, which emit higher levels of EMFs.
6. **Regular Maintenance**: Keep your solar system well-maintained to ensure it operates efficiently and safely, minimizing any potential EMF emissions.

Specifically, at the proposed solar project, the array has been sited over 400 feet away from the school. The proposed location of the inverters will be 700 feet from the school. The site will connect directly to the utility grid and will not run power directly into the school. The utility company will review the project and provide requirements for how the project is interconnected and will make any system reinforcements to ensure the integrity of power grid.

Question: Does OSHA regulate EMF?

Answer: There are no specific OSHA standards for radiofrequency and microwave radiation issues. This section highlights OSHA standards and documents related to radiofrequency and microwave radiation.: Source

Occupational Safety and Health Administration (OSHA) General Industry (29 CFR 1910)

1910 Subpart G - Occupational Health and Environmental Control

1910.97, Nonionizing radiation. The exposure limit in this standard (10 mW/sq. cm.) is expressed in voluntary language and has been ruled unenforceable for Federal OSHA enforcement. The standard does specify the design of an RF warning sign. Newer designs are also acceptable. Related Information

Question: What is the difference between non-Ionizing radiation and Ionizing radiation?

Answer: The main difference between non-ionizing and ionizing radiation lies in their energy levels and their effects on atoms and molecules:

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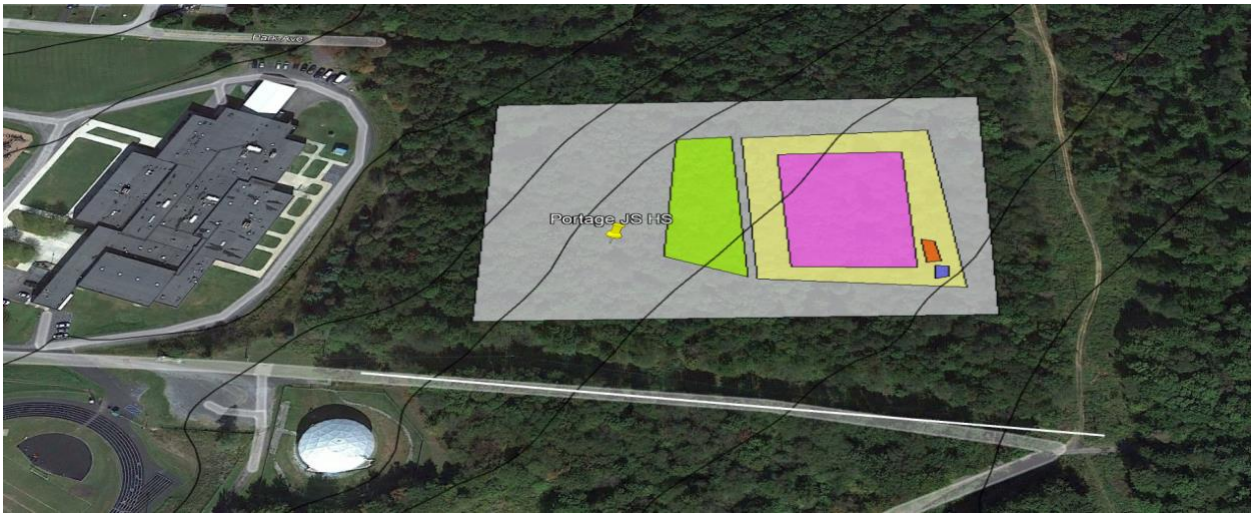
Non-Ionizing Radiation

- **Energy Level**: Lower energy.
- **Types**: Includes visible light, infrared radiation, microwaves, radio waves, and low-energy ultraviolet light.
- **Effects**: Does not have enough energy to ionize atoms or molecules. Instead, it can cause atoms to vibrate or move, leading to heating effects. For example, microwaves heat food by causing water molecules to vibrate.
- **Uses**: Widely used in everyday technology, such as microwave ovens, radio communications, and infrared heaters.
-

Ionizing Radiation

- **Energy Level**: High energy.
- **Types**: Includes X-rays, gamma rays, alpha particles, beta particles, and high-energy ultraviolet light.
- **Effects**: Has enough energy to remove tightly bound electrons from atoms, creating ions. This process can damage or kill cells and alter DNA, potentially leading to cancer and other health issues.
- **Uses**: Commonly used in medical imaging (e.g., X-rays), cancer treatment (radiation therapy), and nuclear power generation.

Proposed Solar Project Layout



Pink Area: represents the layout for solar array (not to scale)
Yellow Area: represents the space between edge of panels and fencing (not to scale)
Green Area: represents the layout used to control run-off (not to scale)
Red Area: represents where the side of array where the line of inverters will be placed (not to scale)
Blue Area: represents the area for underground vault for power connection (not to scale)
Gray Area: not applicable to the design. This is just the designated draw area to display the solar project components listed above