



SA SOLAR

SOLAR POWER AND HUMAN HEALTH



SA Solar is committed to educating the community by providing regular communications, attending local meetings, and engaging with the broader community. We are pleased to provide information regarding solar panel composition, highlight their safety for commercial usage, and share health benefits of solar, within this newsletter edition.

HUMAN SAFETY AND SOLAR PANELS

Modern photovoltaic (PV) solar panels are comprised of solid materials confined between sturdy glass with a metal frame. Panels typically consist of glass, polymer, aluminum, copper and semiconductor materials that can be recovered and recycled at the end of their useful life. To provide decades of corrosion-free operation, the solar cells within the panels are encapsulated and protected from air and moisture.¹ All solar arrays are engineered to withstand anticipated wind speeds and follow all pertinent regulations regarding engineering and safety. Due to their composition, solar panels do not pose a material risk of toxicity to public health and safety.²

Panels will not produce emissions, nor will heavy rains cause a runoff of harmful materials. Solar energy facilities are a durable, clean, energy production source that will remain odorless, quiet, and will not produce harmful byproducts. The SA Solar Project will yield only safe, clean, renewable energy for the local community.

ELECTROMAGNETIC FIELDS (EMFS)

What are EMFs?

Electromagnetic fields (EMFs) occur from the flow of current through wires or electrical devices that have an electric field produced by voltage. Electromagnetic fields surround anything that uses or carries electricity. They are associated with the production and distribution of electricity and can be produced through natural and human-made sources – refrigerators, coffee makers, microwaves, solar energy facilities, the sun, fire, lightning, and a multitude of other items.³

EMFS AND SOLAR ENERGY

Considering a solar array produces and distributes energy, the SA Solar Project would qualify as a source of EMFs; however, the Project will not pose any associated health risks given associated EMFs emitted are extremely weak. According to a study conducted by the National Renewable Energy Laboratory (NREL), EMFs measured at the perimeter of solar PV installations are indistinguishable from background EMFs, and are lower than common household appliances, such as televisions and refrigerators.⁴ SA Solar is committed to implementing mitigation measures, such as setbacks from the project footprint and adhering to government regulations, to guarantee secure operations to keep the community safe!

¹<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>

²<https://nccleantech.ncsu.edu/wp-content/uploads/2019/10/Health-and-Safety-Impacts-of-Solar-Photovoltaics-PV.pdf>

³<https://www.mass.gov/info-details/electromagnetic-fields-or-emf>

⁴<https://www.nrel.gov/docs/fy17osti/67440.pdf>



FOR MORE INFORMATION ON SA SOLAR PROJECT

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