

# BLUE ELK SOLAR I



## The Project

Blue Elk Solar I will be a multi-million dollar investment in renewable energy located in Lenawee County. With a fully executed Power Purchase Agreement (PPA) with Consumers Energy, the energy produced by the project will be a contracted low-cost power source for the utility. Consumers Energy is contracted to purchase the full output of the facility in its first 20 years of operation.



This utility-scale solar facility will capture the sun's energy through solar photovoltaic panels mounted on racking equipment that tracks the sun from morning to evening. Panels stand six feet tall in the middle of the day and reach a maximum height of 9.5 feet in the morning and evening hours. Small inverter transformer blocks convert direct current to alternating current, and the energy is then directed to the project substation and onto the electrical grid. Blue Elk Solar I will interconnect to Consumers Energy's 46 KV line about .3 miles north of the intersection of S Wilmoth Hwy and Academy Rd.

# DETAILS ABOUT THIS PROJECT

## Project Timeline:

Torch will work through 2021 to satisfy all local and state permitting requirements for Blue Elk I. Construction is planned for Spring of 2022 with the expectation of generating power as early as Spring 2023. The Project will be primarily managed remotely through a SCADA system with regular site visits to fine tune equipment and manage vegetation. Blue Elk I will operate for 20-30 years and may be recommissioned at the end of that period.

## Project Details:

Project installation, construction, and operation will not require any toxic chemicals or pose any risk to public health or safety. Solar photovoltaic (PV) modules consist mostly of aluminum, copper, glass, and semi-conductor materials that can be recycled or sold at the end of the facility's lifetime. PV systems create electromagnetic fields (EMFs), but their frequency is lower than those created by transmission lines and at a distance of 150 feet, EMFs from the Project are not distinguishable from the earth's magnetic field.

The heat absorbed by solar modules is much like that of black asphalt roofing shingles. However, panels provide shade to underlying vegetation that can reduce the heat absorbed by surface soils and studies have shown that there is no ambient increase in temperature from a PV system outside of the project boundary. Noise created by the facility is negligible and can be compared to the volume of a normal conversation. At a distance of 150 feet, the noise of the facility becomes inaudible. During nighttime hours when the panels are no longer capturing the sun's energy, the facility will be silent.

Solar panels are designed to absorb light rather than reflect it. Glare created by solar modules is minimal and can be compared to the glare of a pond or lake. All utility-scale solar facilities, including Blue Elk Solar I, are permitted by the FAA to ensure that there are no risks created by glare.

The ground-mounted solar arrays that will be used in this facility are designed to withstand high wind speeds and inclement weather. The Project will be enclosed by a 7-foot game fence that incorporates vegetation to provide a visual barrier where there is not an existing vegetation barrier. Additionally, a Vegetation Plan for the Project will ensure maintenance of the site and the planting of pollinator-friendly species. Groundcover planted beneath and between solar arrays provides protection to the earth and creates healthier soil for when the Project is decommissioned.

## Why Utility-Scale Solar:

Utility-scale solar energy production is becoming increasingly economical as the industry grows, technology improves, and developer competition increases. Power Purchase Agreements (PPAs) established between energy buyers and renewable energy project developers are beneficial to consumers as they allow a more accurate prediction of energy expenses over the short and long term and protect against the risk of fluctuating energy prices.

