

# Livingston County Planning Department

Assembly Solar Facility Bus Tour

August 26, 2022

# Assembly Solar Facility Project - Tour Goal

- Conway and Cohoctah Township are anticipating and planning for a 1K-2K-acre utility scale solar facility incorporating properties from both communities. The facility would be operated by Ranger Power.
- Ranger Power operates and maintains the Assembly Solar Facility. This tour would provide the participants with a first-hand view of an actual large, utility-scale solar facility on the ground and in full operation, and give the participants the opportunity to ask questions of the operators in a less formal setting.



# Assembly Solar Facility Project

- Assembly Solar Project is an operating solar farm in Shiawassee County, Michigan.
- The facility occupies approximately 1,200 acres .
- Includes nearly 800,000 bifacial solar modules.
- All three phases of the Assembly's construction, with all phases happening concurrently, were completed over a 26-month period, between 2020-2022.
- The Assembly solar farm is expected to reduce carbon dioxide emissions by 394,000 tons annually in the short term - equivalent to the yearly emissions of approximately 77,000 cars while powering the equivalent of around 45,000 homes.
- The Michigan Department of Agricultural and Rural Development ("MDARD") recently amended the Farmland Development Rights Program ("PA-116") to allow solar energy facilities to be placed on lands enrolled in the Program. In order to allow for this, farmers must amend their existing PA-116 contract to defer the remaining contract term through the duration of the solar project operations in order to avoid paying back the previous seven years of tax credits.
- Once the project has been decommissioned and the farmland has been restored, the remaining term of the PA-116 contract will resume.

Assembly Solar Phases and Capacities	
<u>Phase</u>	<u>Capacity</u>
I	50 MWac
II	110 MWac
III	79 MWac
<b>Total: 3 Phases</b>	<b>Total: 239 MWac</b>

# Tour Route and Participants



Dr Sarah Mills, PhD  
UM Graham Sustainability Institute  
Our Alternative Energy  
Expert and Tour Guide

A total of 29 "tourists" participated. Participants included those from the townships of Conway, Cohoctah, Rosco, Handy, Howell, Marion and Putnam as well as Commissioners from the Livingston County Planning Commission and Planning Department Staff.



# Ranger Power reps brief the tourists at the facility



Ranger Power Reps -  
From Left to Right: Sean Harris, VP  
of Development; Andrew Magnuson,  
Site Supervisor; Drew Vielbig,  
Development Manager



# Portions of the solar array in different angles of tilt



# Comparison of array their size and scale to human scale



# Lunch debriefing, Q & A at a local park



The tour stopped for lunch at a beautiful public park pavilion in the City of Flushing. This provided the tourists a wonderful opportunity for relaxed reflection and lots of time for questions and answers and scenario discussions.

# Final FAQs regarding the Assembly Solar Facility

- Solar panels are made of aluminum, tempered glass, silicon solar cells, and wiring.

- Prior to the start of construction, Ranger Power installed a mixture of native grasses and pollinators that are designed to be slow growing. This natural vegetation is mowed a few times every year. It is also designed to benefit pollinating insects and birds, while also improving water quality through the reduced usage of fertilizer and pesticides. Ranger Power's future projects in Michigan will be designed and planted to achieve a score of at least 76 on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.

- There are two apiaries located on the Assembly site which are designed to produce Solar Honey.

- Solar panels make no noise. The trackers that tilt the solar panels throughout the day make a very low sound that is inaudible unless standing immediately next to the solar panels. The project will use inverters to convert the DC power produced by the panels to transmission-grid compatible AC power. These inverters make a slight hum when in use during the day, which is caused by a fan. This sound dissipates rapidly as you move away from the inverters.

- In Michigan, we are all accustomed to cloudy days. Solar technology is compatible with this weather, and, in particular, the new generation of bi-facial solar panels which are able to generate additional electricity from sunlight reflected off of snow. On especially cloudy days, solar projects are still able to generate electricity, although at a reduced amount.