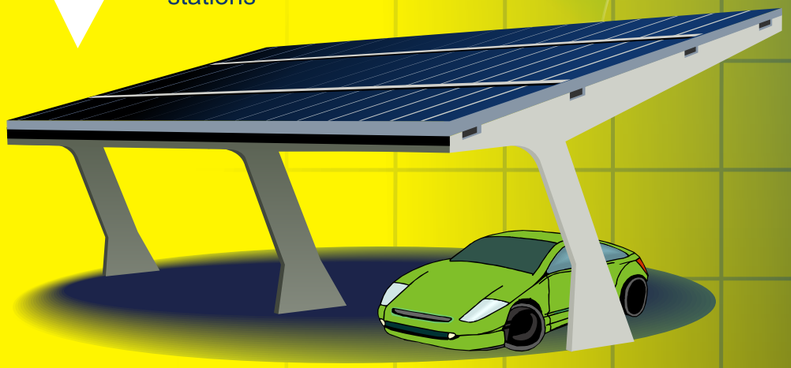
Use of Solar Power for Freeway Lighting

Solar panels will feed power directly into the electrical grid during the day and offset the power needed for the freeway interchange lights at night. The power meter will essentially spin backwards during the day. This is called "Net Metering".

- Solar Renewable Energy
- Potential charging stations



Solar energy to power plant

KILOWATT HOURS

Net Metering

Credit to MDOT

Distribution

Powers the interchange lights at night

Grid-Tied System

Supplies energy to other customers

The green energy that this system will produce is approximately equal to

80.6 tons

of reduced carbon dioxide emissions or 9,047 gallons of gasoline per year

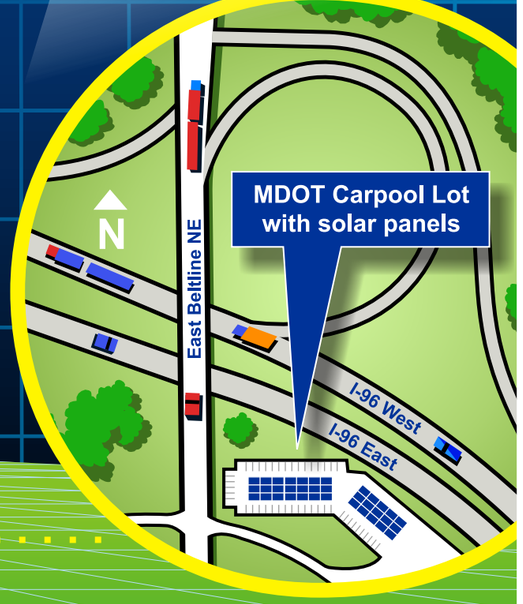
- Resistant to rising energy costs
- Sustainable
- Revenue generating
- Grid-tied system (No batteries)
- Silent source of energy
- Low Maintenance
- Reduced Dependence on fossil fuels
- Non-polluting

The system will produce approximately 106,000 kWh per year, resulting in

$13,500

estimated annual energy savings

45 Approximately the number of covered and LED illuminated parking spaces within the existing MDOT carpool lot.



Michigan's first solar-powered interchange lights.
I-96 at M-37/M-44 (East Beltline) in Grand Rapids.

Partners include:
US Department of Energy, Michigan Department of Transportation, Pure Michigan Energy Office

MDOT
Michigan Department of Transportation