



# OHIO DEPARTMENT OF TRANSPORTATION

TED STRICKLAND, OHIO GOVERNOR JOLENE M. MOLITORIS, ODOT DIRECTOR

## Ohio Department of Transportation • Fact Sheet

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### Interstate 280 Solar Array Research Project

#### Project Description:

This site will host a solar array on highway right-of-way, a first for the Ohio Department of Transportation. Featuring panels made by Northwest Ohio solar manufacturers, the project will generate electricity to offset the power used by the pylon of the Veterans' Glass City Skyway and the highway lighting from the river span to the Greenbelt Parkway. Through March of 2012, a study of the site will be conducted by the University of Toledo to determine the feasibility and effectiveness of installing solar arrays in right-of-way areas. The outcome could set the stage for many more projects of its kind.

#### General Information:

- Construction Timeline: July 2010- December 2010
- Project cost : \$1.5 Million
- Research cost: \$500,000 ( \$250,000 University of Toledo Contribution)
- Manufacturers: First Solar, LLC, Xunlight Corporation
- Research conducted by: The University of Toledo, Electrical Engineering and Computer Science Departments

#### Location:

The solar array will be located on Interstate 280, south of Central Avenue, north of Greenbelt Parkway and west of Galena Street in the City of Toledo. The location creates an ideal south-facing position for the solar panels.

#### Estimated Annual Production:

Using the National Renewable Energy Laboratory solar energy simulator, an annual estimate was generated based on the size of this solar array. The 115.6 kW array is estimated to produce 131,000 kWh annually.

#### Estimated Utility Savings:

Assuming a rate of \$.12 per kWh, the annual savings would be about \$15,000. It cost ODOT approximately \$20,000 annually to energize the VGCS pylon and highway lighting from the main span to the Greenbelt Parkway.

#### Solar Module Manufacturers:

First Solar, LLC and Xunlight Corporation

#### Panels:

966 First Solar modules (2' x 4' double sided glass)

198 Xunlight modules (3' x 18' thin stainless steel back with epoxy cover)

# Solar Tour Site Map

