



Published on *East Lansing Info* (<https://eastlansinginfo.org>)

Home > Solar Carports Generate Energy for MSU and Taxes for East Lansing

Solar Carports Generate Energy for MSU and Taxes for East Lansing ^[1]

Monday, July 31, 2017, 7:08 am

By:

Ian Hoopingarner



Construction is underway at Michigan State University's Lot 89, near the Farm Lane and Mount Hope Road intersection, on the first module of a ten-megawatt solar array project that will eventually cover four other parking lots on MSU's campus with solar roofs. Combined, these solar carports will generate about 15,000 Mwh (megawatthours) of energy yearly, which will be sold directly to the university at a fixed rate for 25 years.

The limited liability company that owns the panels, Spartan PV1, will also pay some personal property taxes to the City of East Lansing, as private companies located on university land are not exempt from this tax liability.

When Spartan PV1 approached the City of East Lansing [2] with the proposal last year, company representatives said they might be unable to complete the project unless the City allowed them a 25-year tax abatement on 80% of the property. Council voted last June [3] to offer just a 10-year tax break of about 82% of the taxes owed, and the company opted to move ahead [4] with the plans.

MSU parking lots 83, 89, 91, 92, and 100 are slated to feature some forty-thousand solar panels generating sustainable electricity for the MSU power grid. A few of these panels have already been fully installed on the west end of Lot 89.

The carports consist of vertically angled aluminum alloy girders anchored into the ground, topped with a roof of solar panels. The carports are designed [5] for a minimum clearance of 14.5 feet, allowing for RV parking and enough room to maneuver snow removal equipment. Selge Construction, based in Niles, Michigan, is building the structures.



The new solar photovoltaic (PV) project is part of a long-term strategy to end the burning of coal at the T.B. Simon power plant on Service Road. Coal has not been burned to power campus since MSU President Lou Anna Simon hosted a live webcast [6] about the university's energy future last April. Sticking to the Energy Transition Plan signed off on [7] by the MSU Board of Trustees in 2015, MSU has laid additional pipeline [8] to carry natural gas to the power plant, and is now adding the capacity to generate emission-free energy.

Another reason to build the new solar installation is the fourteen additional megawatts of electricity the Facility for Rare Isotope Beams [9] (FRIB) will demand once it is operational. New

transmission lines connecting the FRIB directly to the T.B. Simon plant have been laid, and a switch-house was constructed in January 2016 to control the flow of electricity between the two. The switch house will connect to the PV array a new substation, and the campus power grid. A fact sheet ^[10] issued by the Infrastructure, Planning and Facilities (IPF) office says that MSU is paying for this new electricity infrastructure with \$2.5 million from the utility reserve.

The \$2.5 million that MSU will put toward the switch-house, substation, transmission lines and other connections to the PV array will be the only costs the university will have to pay for the project. All other financing will come from a Power Purchase Agreement, or PPA, between the university and Spartan PV1.

A PPA is a way to shift the cost of construction and maintenance of large-scale solar energy projects away from the end-consumer. Rather than MSU doing so, a group of investors will foot the bill for buying and installing solar panels and frames. The investor group owns the infrastructure and recoups its initial investment by collecting tax incentives and selling electricity. The host consumer agrees to purchase the services ^[11] of the PV system for a set amount of years at a guaranteed price, rather than buying the PV system itself.

The main partners in the investor group Spartan PV1 are the project developer Inovateus Solar, based in South Bend, Indiana, and Alterra Power Corp., based in British Columbia, Canada. The investors are funding the estimated \$20 million installation ^[12]. MSU will purchase electricity at a fixed rate from this group for 25 years.

With the Energy Information Administration of the Department of Energy estimating ^[13] that electricity costs could rise 16-19% from 2013 to 2040, committing now to buying energy at a fixed rate may benefit MSU's pocketbook. MSU spokespeople confidently predict ^[14] that the deal will save the university \$10 million over the course of the 25-year contract. A nondisclosure agreement signed by the university means that the exact price that MSU will pay for the electricity, however, has not been revealed.

“MSU doesn't own the solar array, the carports, any of that. We buy power,” said Christopher Barnes, a construction representative from MSU's IPF office.

With MSU's limited involvement in building and financing the project, some project details do not pertain to MSU personnel, one such detail being the manufacturer of the 6x3 ft. solar panels. Workers on the Lot 89 job site divulged that the panels they were installing were Talesun products. A large transnational solar firm, Suzhou Talesun Solar Technologies is known for their fully-automated manufacturing process. When asked to confirm the brand of solar paneling, Barnes from the IPF office was unsure but did comment: “That is what I understand as well? I believe that is the manufacturer.”

The co-owners of Spartan PV1 amended their agreement ^[15] with MSU last December, giving the developers an extension on the project completion date. The full complement of solar panels now must be installed on campus by the end of this year. Some solar-panel-topped carports may begin generating power before then. Construction workers have been instructed to minimize interference with parking and tailgating for MSU football home games while they finish the project.

Related Categories:

[ELi on Earth](#) [16]

[Environment](#) [17]

[Finance and Taxes](#) [18]

[Government](#) [19]

[MSU](#) [20]

[Always Pin](#) [21]

ELi is a member of INN and LION Publishers



**Institute for
Nonprofit News**



This news is brought to you by our financial supporters!

Source URL: <https://eastlansinginfo.org/content/solar-carports-generate-energy-msu-and-taxes-east-lansing>

Links

[1] <https://eastlansinginfo.org/content/solar-carports-generate-energy-msu-and-taxes-east-lansing>

[2] <http://eastlansinginfo.org/content/msu-solar-array-project-seeks-tax-exemption-council-split>

[3] <http://eastlansinginfo.org/content/council-votes-unanimously-give-shortened-tax-abatement-solar-project>

[4] <http://eastlansinginfo.org/content/solar-project-going-forward>

[5] <http://www.aashe.org/solar-panels-customer-first-renewables/>

[6] <https://www.youtube.com/watch?v=X5b1wiOYHFY>

[7] <https://trustees.msu.edu/meetings/pdfs/bot-agenda-2015-09-11.pdf>

[8] <http://ipf.msu.edu/construction/projects/electrical-distribution-campus-renewable-energy.html>

[9] <https://frib.msu.edu/>

[10] <http://ipf.msu.edu/green/practices/solar-carport-initiative.html>

[11] <https://www.epa.gov/greenpower/solar-power-purchase-agreements>

[12] <http://msutoday.msu.edu/news/2017/construction-begins-on-msu-solar-array-project/>

[13] [https://www.eia.gov/outlooks/aeo/pdf/0383\(2015\).pdf](https://www.eia.gov/outlooks/aeo/pdf/0383(2015).pdf)

[14] <http://statenews.com/article/2017/04/solar-carports-construction-begins>

[15] <http://www.prnewswire.com/news-releases/alterra-power-announces-amendment-of-power-purchase-agreement-for-michigan-solar-project-607984346.html>

[16] <https://eastlansinginfo.org/elionearth>

[17] <https://eastlansinginfo.org/environment>

[18] <https://eastlansinginfo.org/finance>

[19] <https://eastlansinginfo.org/government>

[20] <https://eastlansinginfo.org/msu>

[21] <https://eastlansinginfo.org/tags/always-pin>