

Solar Energy at Bucknell University



Bucknell and Encor Renewable Energy officials cut the ribbon at the new Bucknell solar array in East Buffalo Township. From left, Victor Udo, director of Sustainability at Bucknell; Bucknell President John Bravman; and Chad Farrell, founder and CEO of Encor renewable Energy.

Jim Diehl/The Standard-Journal

https://www.standard-journal.com/news/local/article_5fa2af64-3660-514d-9724-4585989aa068.html



Jim Knight, Director of Energy and Utilities



Colton Jiorle, Engineering Student

https://www.youtube.com/watch?v=lf7FUEq7z_E

Solar farm unveiled at Bucknell University



BUCKNELL UNIVERSITY UNVEILS SOLAR FARM

WNEP.COM 7:02 16 WNEP 70°

0:15 / 1:54 [play] [stop] [mute] [full screen] [HD] [CC]



Bucknell Solar Field Details

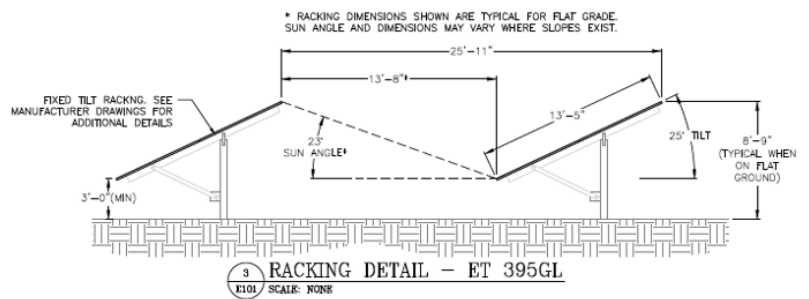
Bucknell recently installed a solar array that will ultimately generate 1.4 MW AC and 1.7MW DC of electricity. The facility is sited near the Golf Course as seen below.



The field faces south with a tilt of 25 degrees from horizontal (local latitude is 40 degrees). There are two different types of modules in use. The high-level system specs are summarized in the following table, and the module orientation is illustrated in sketch shown below.

TOTAL SYSTEM SUMMARY:

TOTAL DC SYSTEM SIZE:	1,765.92 kWDC
AC SYSTEM SIZE:	1,375.00 kWAC
MODULE TYPE 1:	(1,664) ET SOLAR ET-M672370WW
MODULE TYPE 2:	(2,912) ET SOLAR ET-M672BH395GL
STRING QUANTITY:	176
MODULE TILT:	25°
MODULE AZIMUTH:	180°
INVERTER MANUFACTURER:	CHINT
INVERTER MODEL:	CPS SCH125KTL-D0/US-600
INVERTER QUANTITY:	11



There are over 4500 modules in the field of two different types. Both have a nominal power of ~350 W, and efficiency at standard test conditions of near 19%, and an output voltage of about 40 V. Some of the modules are bifacial, and able to produce power from light reflected from the ground. The modules are arranged in 25 rows that are connected to a total of 11 inverters that ultimately come together in a common electrical connection point.