

University of Rhode Island Solar Array Brings

Smaller Carbon Footprint and Savings to the Community

Overview

Established as the state's flagship public research university, the University of Rhode Island (URI) has been nestled in historic Kingstown, R.I. for over 120 years. URI is known for many things, including its cutting-edge research, its Division I sports teams, and its leadership in sustainability. Each year, URI receives over \$100 million in federal research grants from the National Science Foundation, National Oceanic and Atmospheric Administration, National Institutes of Health, and others. Despite the challenges of hosting 15,000 undergraduate students, the campus has been listed as one of the Princeton Review's top green colleges for 10 years running.

Goals

Sustainability leaders at URI had two primary goals in their efforts to go solar: to lower their campus' carbon footprint and establish an opportunity for research for the Sustainability Innovative Solutions (SIS) Lab. At the ribbon-cutting ceremony, URI President David M. Dooley echoed those goals: "The University's commitment to this project reflects our values as a higher education institution dedicated to decreasing our carbon-footprint and contributing to a healthier global environment."

Along with sustainability and innovation, cost savings was a driving factor when URI issued a Request for Proposal to build a 9.3 megawatt (MW) solar array spread across two locations, with one of them on campus. Their ideal project would reduce their energy costs and help them avoid volatile energy price increases, while eliminating the need to borrow money or dip into capital.

In 2018, URI's solar photovoltaic (PV) project was installed by Nelnet's joint venture partner, Kearsarge Energy - and it is fully operated by them today.





Challenges and Opportunities

The process of navigating the project was complex, as the large solar installation would serve the South Kingstown Solar Consortium (SKSC) - including the University of Rhode Island and the towns of Narragansett and South Kingstown. The sites selected for the arrays were former brownfield and superfund sites - locations that were non-farmable, capped-waste disposal sites. While this presented a fantastic opportunity to upcycle previously unusable land, it also required intensive collaboration between URI, Kearsarge Energy, the Rhode Island Department of Environmental Management, the Federal EPA, and even the Office of the State's Fire Marshal.

Due to location of the array and the interconnection point, Kearsarge Energy had to build approximately 4,000 feet of private line, which meant crossing campus roads, overhead and underground lines, and respecting agricultural and horticultural research areas. After much work and careful collaboration, in October 2018, Kearsarge completed the solar array and brought clean energy to URI.

Results

By entering into a long-term agreement, URI was able to go solar with a multi-million dollar solar power system that was installed without having to borrow money. URI agreed to buy electricity at a fixed price - which won't change over the course of the agreement - and they enjoy a lower monthly power bill due to net metering credits they receive.

Since the development of the solar array, students now regularly partake in cutting-edge research opportunities on-site as part of the Sustainability Innovative Solutions (SIS) Lab Solar Group. Several professors are studying solar panel efficiency vs SKSC benchmarked data. The research undertaken by the SIS Lab Solar Group supports Rhode Island's goal to be 100% powered by renewable electricity by 2030.

"The University of Rhode Island's on-campus solar array is an excellent example of a public-private consortium involving URI, the town where URI is located, South Kingstown, and a neighboring town, Narragansett," said Andrew Bernstein, managing partner at Kearsarge Energy. "URI had the vision to promote renewable energy and also wanted to retire the Renewable Energy Certificates the array generated to enhance their leadership in sustainability and addressing climate change."

"The partnership is truly a win-win-win as URI and its neighboring towns will save tens of millions in energy costs, URI demonstrated clean energy leadership, and Kearsarge was able to repurpose a Superfund site and a landfill."

- Andrew Bernstein, managing partner at Kearsarge Energy





How Solar Changed a Campus and a Community

Sustainability-leading URI set its sights on meeting their climate action goals by working with Nelnet partner Kearsarge Energy to bring a two-site, 9.3 MW solar array to campus. The measurable impacts of the project on sustainability and savings for the campus are impressive. In addition, there are positive, ongoing environmental and economic benefits to South Kingstown and Narragansett created by URI's broad vision and collaboration.



40%

Reduction of GHG levels by 2035 is a closer goal for URI because of the project.



\$7M

In energy cost savings over the 25-year term of the project.

The clean electricity produced by the project over its lifetime



2,000

Gas-powered vehicles taken off the road each year for 20 years.





Conclusion

While bringing solar to a sustainability leader and flagship public research university seems obvious and straightforward, this campus solar installation required navigating a complex consortium with neighboring communities – as well as environmental and land use challenges. With the completed project, on-site research and innovation at the University of Rhode Island is booming – and the university’s surrounding community has shrunk its carbon footprint and secured immediate and ongoing savings.



- Founded in 2009, Kearsarge has developed and financed more than 60 MW and \$180 million of solar PV projects.
- Their projects span the U.S., from Hawaii to Massachusetts.
- Their project with the University of Rhode Island was, at the time, the largest solar PV project in the state.



- Since 2018, Nelnet has helped finance solar installations in 15 states valued at \$720 million.
- Nelnet actively provides services to thousands of educational institutions, such as student loan servicing, payment technology, and school management technology.
- Nelnet partners with investors, developers, start-ups, campuses, and communities to deploy renewable energy and other technology solutions, contributing to a cleaner, more resilient, and more inclusive future.

Bring Solar to Your Campus

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