

Customer Success Case Study

Providing Systems Integration for an Old Mill Building

Spire Solar Systems has the engineering excellence and customer interaction skills to successfully implement difficult and high visibility projects. These skills are important in the design and installation of both “standard” systems, and specialized custom systems requiring careful attention to customer requirements. Spire’s design and installation at Centerbrook Architects’ facility is one example of the many projects which reflect Spire’s skills and excellence.

Centerbrook Architects, a leading firm in the practice of innovative “green” design, believes sustainable design is an essential component to all of its projects. As a result, Centerbrook Architects has a truly unique office facility: a nineteenth-century mill building adapted to meet the needs of a twenty-first century architect’s office that is also used as a laboratory for green architecture.

Having already installed a micro-hydro plant in 1982 to offset its electricity, in 2006 Centerbrook decided to add solar photovoltaic capabilities and looked to Spire Solar Systems to design and install this high visibility solar system.

Using the careful consideration needed when applying new technology to a historic building, Spire Solar Systems designed a panel system on the building’s roof, consisting of two installations: one for the south-facing roof, and one for the building’s back west-facing roof. Working in collaboration with Shell Solar Industries, the south-facing roof was outfitted with a 16.5 kW array. Within several years Centerbrook returned to Spire Solar Systems for support in expanding their solar footprint, and a west-facing roof was outfitted with a 26.4 kW Sunpower high-efficiency array. The arrays blend into the architecture so well that most people passing by the office do not realize photovoltaic modules sit atop the building.

The 42.9 kW solar system has the capacity to generate 20,600 kilowatt-hours (kWh) of energy per year and, in combination with the existing hydropower system, has the potential to provide over 25 percent of the building’s electricity requirements. In addition, the system offsets over 39 tons of CO₂ emissions per year.

Ted Tolis, Senior Architect for Centerbrook and project manager for the PV system, stated, “PV is part of our industry and we hope our solar energy project will serve as an example to businesses across Connecticut that solar energy is a viable energy source. Spire executed our project on time and within budget. They were a pleasure to work with.”

The solar installation was featured on October 1st, 2005 in the 2005 Green Building Open House, which was part of the American Solar Energy Society’s National Solar Tour. The event offered an opportunity for the public and the media to see how clean energy sources can be integrated into building designs. The experience of both companies also led to a custom job at Yale University Forestry Building where Spire worked with Centerbrook and other architects to incorporate custom solar panels for skylight features.



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