



TEMPLE BETH CASE STUDY

Temple Beth El, a synagogue in Stamford, Connecticut, installed a 210kW Kingspan Energy solar photovoltaic system in September 2013. The project won an award for the largest carbon footprint reduction on any house of worship in the United States.

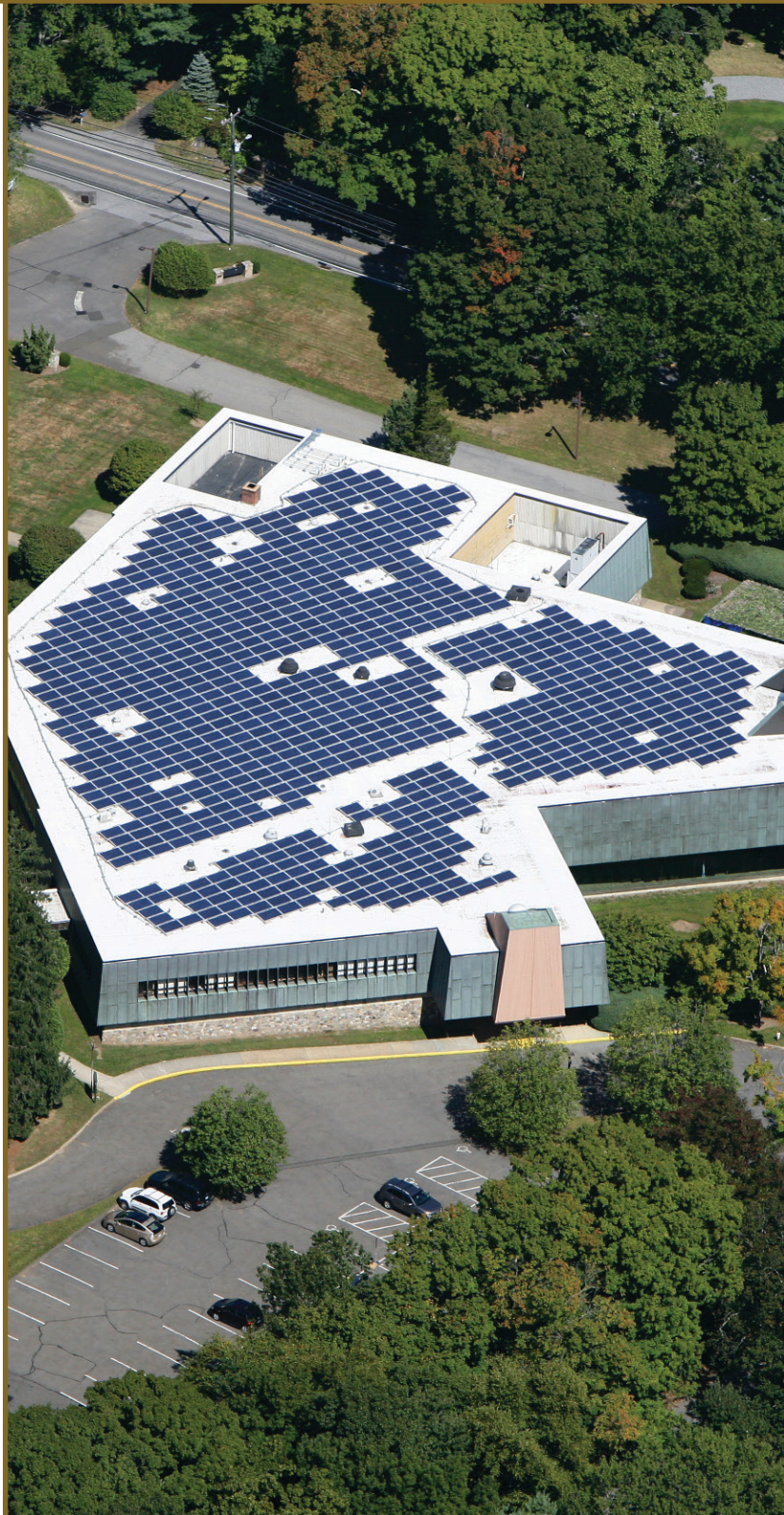
PROJECT SUMMARY

The 210kW solar system, utilizes 845 photovoltaic panels (250W each) on the temple's 30,000 sq ft white Energy Smart Solar Ready Roof, fitted with three inches of insulation.

A lighting upgrade that took place throughout the building included switching to energy-efficient lighting and installing automatic switches and high efficiency phase-down motors. These upgrades are projected to save an estimated \$31,000 per year.

The project has been funded through multiple ways, including comprehensive incentives from utility, a PPA for solar array, as well as some conventional financing mechanisms.

Temple Beth El received an award for renewable 2013 Cool Congregation Challenge - Renewable Role Model Winner.



SYSTEM PERFORMANCE

The power production by the solar system is estimated at 237,479kWh per year, and is expected to supply 70% of the synagogue's annual electrical needs.

In addition, the energy-efficient lighting and the upgrade of mechanical systems and controls will result in an 80% reduction in energy costs and an 80% total carbon footprint reduction.

Environmental equivalencies (per year):

213,019 lbs of CO₂ avoided;
902.4 lbs of SO₂ avoided;
356.2 lbs of NO_x avoided;
28.8 acres of trees planted;
263,213 miles not driven in passenger cars;
11,013 gallons of gasoline not burned.



PROJECT CARD

Building owner: Temple Beth EI

Location: Stamford, CT

System size: 210kWp

Roof space coverage: 30,000 sq ft

Project type: New Build

Industry sector: Congregation

Financing: Incentives from utility, PPA, conventional financing

Completion date: September 2013

Installation time: 6 weeks



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