

Ecovillage TREE Neighborhood

Ithaca, New York



EcoVillage at Ithaca is an **innovative co-housing community** that emphasizes environmental stewardship, cooperation, and sustainability. Tree Neighborhood is the third community at EcoVillage.

Taitem Engineering was tasked with creating energy goals for the various styles of townhouses and the common building in the new community, with a goal of designing **affordable, near-net-zero energy buildings**. Taitem developed the appropriate energy systems and technology to meet the design goals as well as a plan to commission the houses to **demonstrate energy-related performance**. After occupancy, some of the residences have achieved net zero energy use.

modeled performance data

- ⇒ HERS Index: without PV 56, with PV 15
- ⇒ Projected Annual Utility Costs: without PV \$1,593, with PV \$628
- ⇒ Annual PV Production Revenue: \$965
- ⇒ Annual Energy Savings: without PV 10,924 kWh; with PV 16,285 kWh

building size 48,980 SF

services conceptual design for mechanical, electrical, plumbing, fire safety, and structural; development of energy models and commissioning plans for all townhouses

completion 2014

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...raters calculate that annual heating costs would amount to about \$275 per home.

—DOE Zero Energy Ready Home program

