



A MODERN SOLAR FARMHOUSE

Mottram Architecture designed this farmhouse to have a symbiotic relationship with the sun and the surrounding environment. It is a net-zero-ready home with a Home Energy Rating System score of 10, built by Live Solar Maine. An additional row of panels, planned for in the solar design, would put this house at below-zero energy consumption with positive solar output and the accommodation of an electric vehicle.

Careful consideration was given to optimizing sunlight, energy, and air quality through the use of daylight planning and by tracking the sun's movement and the homeowner's habits across the house during the course of a day. The house faces south to take advantage of passive and active solar gain. In the summer, a farmer's porch blocks out stronger sun, while light from the south and west warms the home in the winter. North-facing windows were minimized for performance.

Because Mottram Architecture feels that spaces transform lives, this home was designed for the physical, social, and emotional well-being of the owners. The firm maximized the layout while minimizing the footprint. By adding vaulted ceilings on the second floor and setting the windows low to the ground it created an air of spaciousness within a smaller footprint. With modern farmhouse touches that blend traditional and contemporary design, the home is comfortable for today while also conserving energy, and the environment, for future generations.

Architect: Mottram Architecture

Builder: Live Solar Maine

Panelized Walls: Construction Systems of New England

Solar: Teel Green Energy

Photographer: Michael Eric Bérubé/Maine Virtual Home Tours



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Patrice Miller

P.O. Box 223

Cumberland, Maine 04021

207-749-8117