

New Net-Zero Solar Farmhouse from Deltec Generates All Its Own Energy

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In these uncertain times of erratic weather and changing climate patterns, [net-zero energy](#) (or NZE) is quickly becoming the gold standard in green building. If you can generate all of your own energy on site, you never need to rely on the grid or worry about energy bills. The [North Carolina prefab builders at Deltec](#) launched a line of [affordable net-zero energy homes](#) last year to great fanfare from off-grid buffs around the U.S. Now we're thrilled to see them introduce a brand new design to this collection; a charming, classically-styled [Solar Farmhouse](#) with all of the old-fashioned curb appeal, plus the futuristic technology that makes this home achieve net-zero energy

We've been following Deltec as they've gained fame for their [net-zero prefabricated homes](#) and smartly structured [hurricane-resistant round](#) homes. The North Carolina-based company has just added a brand new model to their [Renew Collection](#) that turns a time-honored American design into a net-zero build. The [Solar Farmhouse](#) contains everything that the classic vernacular farmhouse possesses — a pitched roof, quaint front porch, white wood siding and simple lines — updated with a slew of energy-efficient features, including a [passive solar design with a photovoltaic roof](#) and an air-tight building envelope that Deltec says simply “can't be duplicated in the field.”

The [two-story Solar Farmhouse](#) encapsulates the “American Dream”, spanning 2029 square feet with 3 bedrooms, 2.5 bathrooms and a darling 128-square-foot covered front porch. Although it looks just like a traditional farmhouse, this updated design is packed with modern functionality. It boasts spacious rooms, 10-foot-high ceilings, plenty of storage, and its open plan allows the home to circulate air more efficiently.

Built with traditional passive design concepts, every model in [Deltec's Renew Collection](#) is dedicated to achieving net-zero energy independence. Each home is fitted with an air-tight

building envelope, and by adding high-performance insulation, natural air ventilation and solar shading, each structure will stay naturally cool in summer and achieve the maximum insulation and solar heat gain possible in winter. Without requiring much energy to cool and heat these homes, they can be powered by a photovoltaic solar array alone, without relying on the grid, successfully achieving net-zero energy.

The open layout of the [Solar Farmhouse](#) puts the kitchen, dining and living room all in one sprawling space. [Deltec](#) supplies the shell of the home, with the option of several amenities that can be added to the homeowner's liking. These amenities include a 240-square-foot covered back porch, metal roof, [fresh air ventilation](#), [passive solar](#) awnings, and a detached carport or garage. Buyers can also choose from pre-installed window packages and pre-stained siding packages. Deltec also provides energy modeling to help homeowners select the best energy-efficient features for their home's specific climate.

The bare bones shell of the Solar Farmhouse starts at around \$62,000, while a finished home will likely range between \$350k-400k.

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