

Blue Hill Form Based Code Revision Petition
Requirement for Installing Roof-Mounted Solar Energy Systems
Environmental Stewardship Advisory Board
January 12, 2019

The ESAB hereby petitions the Chapel Hill Town Council to modify the Blue Hill Form Based Code to include the following requirement:

All new development in the Blue-Hill district shall install roof-mounted solar energy systems over at least 80% of eligible roof areas, with the following stipulations:

- Eligible roof areas include all unshaded flat roofs and pitched roofs facing between the directions of southeast to southwest. Parking garages shall be included in these requirements if the excess energy output from their solar energy systems will be utilized in adjacent occupied buildings.
- Active solar energy systems include solar electric photovoltaic (PV), solar thermal hot water, solar thermal space heating and cooling, and solar thermal electric power. Passive solar energy systems include roof-installed daylighting structures.
- The maximum electric power output of a solar energy system shall not exceed the annual maximum instantaneous electric power demand for the building, unless energy storage is included in the system design. This stipulation may reduce the 80% rule.
- The annual solar energy produced and utilized by a solar thermal system shall satisfy at most 75% of the energy consumption of the building for space heating, space cooling, and hot water. This stipulation may reduce the 80% rule.
- The roof design may include a combination of active and passive solar energy systems.
- Adherence to these stipulations may be wholly or in-part waived for buildings that integrate non-carbon energy technologies which produce a greater carbon-reduction effect than the solar energy technologies identified herein.

Background Information:

§ 160A-383.4. Local energy efficiency incentives.

(a) Land-Use Development Incentives. - Counties and municipalities, for the purpose of reducing the amount of energy consumption by new development, and thereby promoting the public health, safety, and welfare, may adopt ordinances to grant a density bonus, **make adjustments to otherwise applicable development requirements,** or provide other incentives to a developer or builder within the county or municipality and its extraterritorial planning jurisdiction if the developer or builder agrees to construct new development or reconstruct existing development in a manner that the county or municipality determines, based on generally recognized standards established for such purposes, makes a significant contribution to the reduction of energy consumption.

(b) Repealed by Session Laws 2009-95, s. 1, effective June 11, 2009. (2007-241, ss. 1, 2; 2008-22, s. 1; 2009-95, s. 1.)

Some members of the CDC suggested that the ESAB submit this petition.