

Revisions to ESAB Solar Energy Petition
Tom Henkel, 9/27/2018

After fielding comments from the Planning Commission at their 9/26/18 meeting, I offer the following revisions to the Solar Energy Petition recently submitted by the Environmental Stewardship Advisory Board to the Mayor and Council:

Therefore, be it resolved: The Environmental Stewardship Advisory Board asks the Town Council to require all new building construction and renovations in Chapel Hill which require a rezoning with a Special Use Permit to install roof-mounted solar energy systems over at least 80% of the unshaded roof areas, with the following stipulations:

- 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 least 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.
- Buildings with flat roofs shall meet these requirements. Buildings with pitched roofs facing between the directions of southeast to southwest shall also meet these requirements. This stipulation may reduce the 80% rule.
- 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.
- Adherence to these stipulations may be wholly or in-part waived if new roof-mounted non-carbon energy technologies become available which produce a greater carbon-reduction effect than the solar energy technologies identified herein.

This shall include parking garages and pitched roofs facing between southeast and southwest.