

# MODEL SOLAR GUIDELINES

*A Resource for North Carolina Homeowners' Associations to Facilitate Solar Projects*

## SOLAR ENERGY SYSTEMS

### PURPOSE OF GUIDELINES

Solar energy systems present a sustainable alternative to conventional energy technologies, with the potential to provide homeowners with a significant portion of their energy needs while safeguarding human health and environmental quality and enhancing property values and economic opportunities throughout the community. While [ASSOCIATION NAME] recognizes these benefits, it is important that these systems are installed in a manner that respects legitimate competing community interests. For purposes of these design guidelines, the phrase “solar energy system” includes both photovoltaic and solar heating and/or cooling technologies. For information on the benefits of solar, refer to the companion brochure *The Benefits of Going Solar: A Resource for North Carolina Homeowners' Associations* for additional information.

### APPLICATION REQUIREMENTS

All solar energy systems require ARC (architectural review committee or similar reviewing group in a HOA) approval. The following documents must be included along with the required application or request form:

- Plans showing visibility of the system from areas open to common or public access (e.g., public streets, neighboring lots, or association properties or common areas);
- A drawing (with dimensions) showing the proposed location of the system and how the equipment will be mounted, as well as a description of any visible auxiliary equipment, and;
- Photographs or manufacturer literature for all proposed system components including specifications, color, materials, etc.

Following submission of these materials, the ARC will either approve, request additional materials, recommend changes, or deny the system design and location as proposed or, if feasible, determine an alternate location for the system. If the ARC fails to render a decision on the proposed system design and location within thirty (30) days after the submission of all required application materials, approval will be automatically granted.

### SYSTEM DESIGN AND PLACEMENT REQUIREMENTS

To the maximum extent possible, a roof-mounted solar energy system shall be installed so as to minimize its exposure when viewed from areas open to common or public access (e.g., public streets, neighboring lots, or association properties or common areas). Alternatively, the system may be ground- or pole-mounted, provided such a system does not extend above the fence line and is screened from view from areas open to common or public access.

Solar panels on front-facing or side-facing roof surfaces visible from areas open to common or public access must be mounted in the plane of the roof surface minimizing stand-off distance from roof. Panels in other locations may be angled to achieve optimum solar gain provided the top edge of the panel does not extend above the roof peak. All panels must be located entirely within a boundary defined by the roof eaves and peak. Visibility of the underside of the panels shall be minimized from areas open to common or public access.

Efforts must be made to make the solar energy system an integral and harmonious part of the architectural design of the residence. Visibility of any plumbing, wiring, or auxiliary equipment should be minimized as much as possible. All system components visible from areas open to common or public access and not involved in energy production should be painted to blend with roof coloring.

Because existing trees may reduce access to sunlight and thereby decrease system performance, the ARC will give special consideration to the limited removal of trees outside the normal tree removal requirements or processes. Removed trees shall be replaced to ensure no net loss of trees.

Exceptions to these system design and placement requirements shall be made if compliance with one or more of these requirements will result in either a significant increase in the cost of the system or a significant decrease in its efficiency or specified performance. For purposes of this exception, “significant” means an amount exceeding 15 percent of the cost of the system, or decreasing efficiency or performance by an amount exceeding 15 percent, as originally specified and proposed. The ARC may require the applicant to provide a written statement by an independent solar energy expert documenting these cost or efficiency and performance impacts. In this case, the ARC will permit variances to these requirements to the minimum extent necessary to avoid significant increases in system costs or significant decreases in system efficiency or performance.

### EXAMPLES OF QUANTIFIED REASONABILITY STANDARDS

– *Restrictions may not result in:*

CALIFORNIA \$2,000 increase in cost; 20% decrease in performance [714(d)(1)(B)]

HAWAII 15% increase in costs (install, maintenance, and removal); 25% decrease in performance

NEVADA 10% decrease in performance

NEW JERSEY 10% increase in cost; no decrease in efficiency allowed

TEXAS Associations can prohibit installations in locations other than that designated by the association, unless the alternate location increases the estimated annual energy production of the device by more than 10% compared with a system placed in the area designated by the association.

### LANGUAGE AND REQUIREMENTS FOUND IN THESE MODEL SOLAR GUIDELINES WERE BASED ON GUIDELINES AND GOVERNING DOCUMENTS OF THESE NORTH CAROLINA COMMUNITIES:

Black Horse Run (Bahama, NC)  
Charleston Village (Apex, NC)  
Kildaire Farms (Cary, NC)  
Braxton Village (Holly Springs, NC)  
Seven Lakes Landowners Association  
(Seven Lakes, NC)

Homestead at Mills River (Horse Shoe, NC)  
Granite Crest (Rolesville, NC)  
Wood Hall (Waxhaw, NC)  
Village Park Townhomes (Belmont, NC)

### NC SOLAR ACCESS LAW

The State of North Carolina limits the restrictions associations may place on residential solar energy installations. The full text of this law is available at:

[www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByArticle/Chapter\\_22B/Article\\_3.html](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_22B/Article_3.html)

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