



**Solarize
Blacksburg**

Striking a Balance:

Community Associations and
Residential Solar

Planned communities are often designed with a particular aesthetic in mind



CC&Rs

- **Covenants, Conditions and Restrictions:**

The Declaration of CC&Rs is the legal document that lays out the guidelines for the planned community.

- The CC&Rs are recorded in the county records in the county where the property is located and are legally binding.
- In place from beginning of the neighborhood; very difficult to change

By-Laws

- An HOA is governed by a board of directors and a set of rules called bylaws.
- The bylaws govern how the HOA operates and contain the information needed to run the HOA as a business. For example, the bylaws cover matters such as:
 - how often the HOA holds meetings
 - how the meetings are conducted
 - the duties of the various offices of the board of directors
 - how many people are on the board, and
 - membership voting rights
- Can be changed according to internally-defined process for governance

Virginia Law

This law, passed in 2014, bars a community association from prohibiting a property owner from installing a solar energy collection device on the owner's property

unless the community association's recorded declaration establishes such a prohibition.

<http://lis.virginia.gov/cgi-bin/legp604.exe?141+sum+SB222>

What the HOA Board Needs to Know About Solar PV Systems

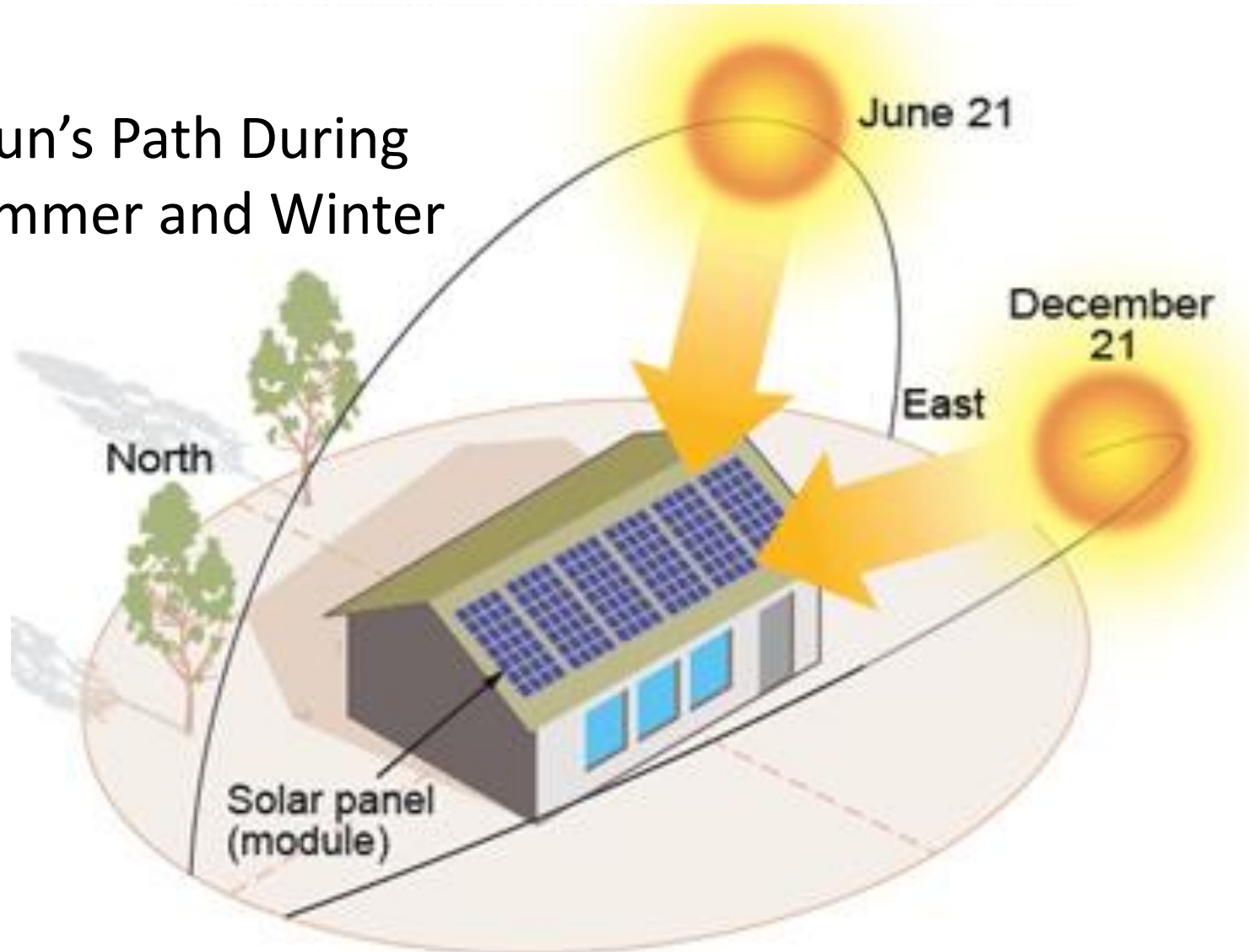
Factors that impact how a PV system works:

- **Orientation** (east, southeast, south, southwest, west)
- **Tilt** (~30°)
- **Shading** (tall trees, dormers, neighbor's house)
- **Size** (small, medium, large)

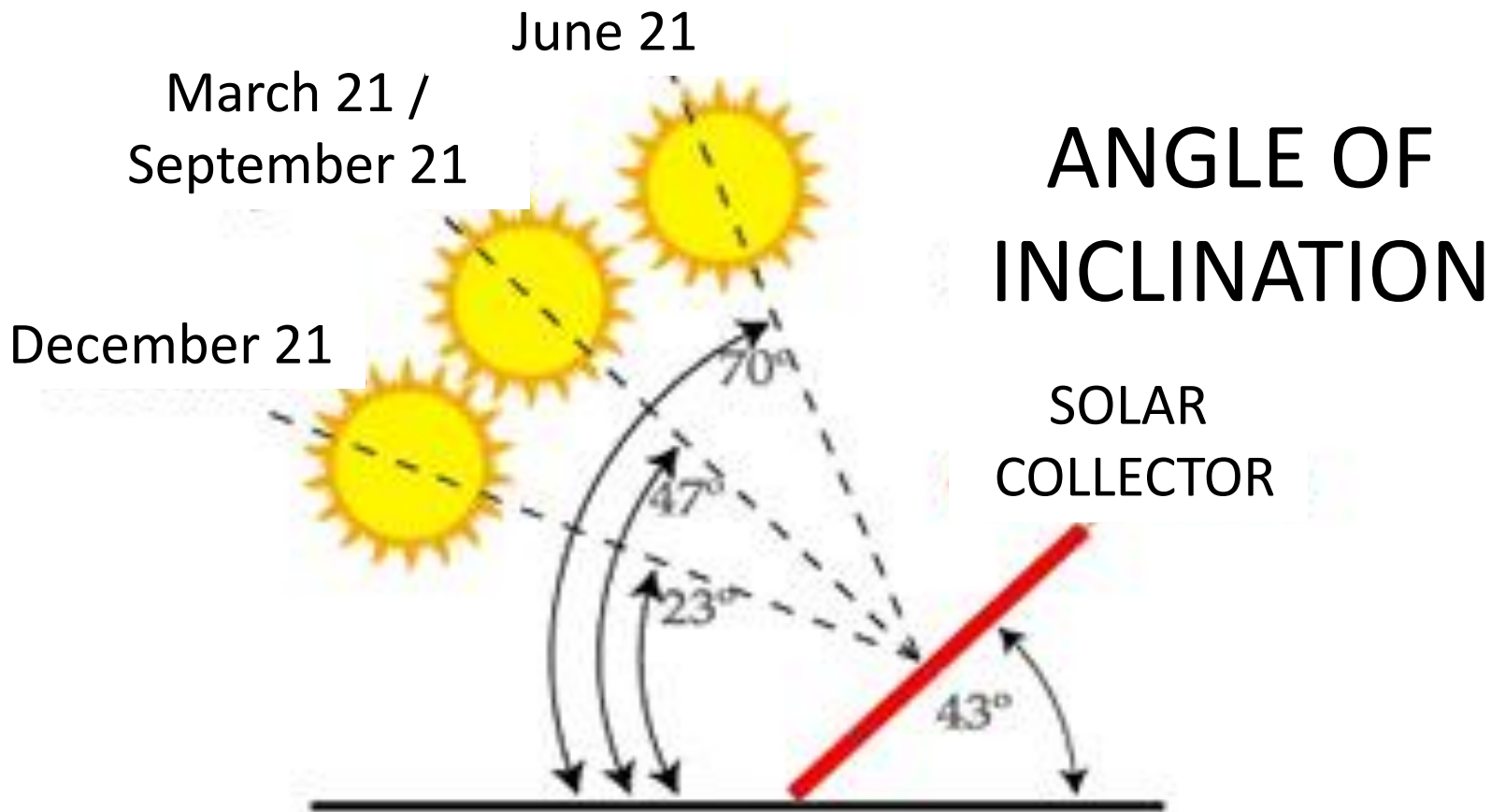
Restrictions are more likely to be considered “reasonable” if they have taken these factors into account

Orientation Impact

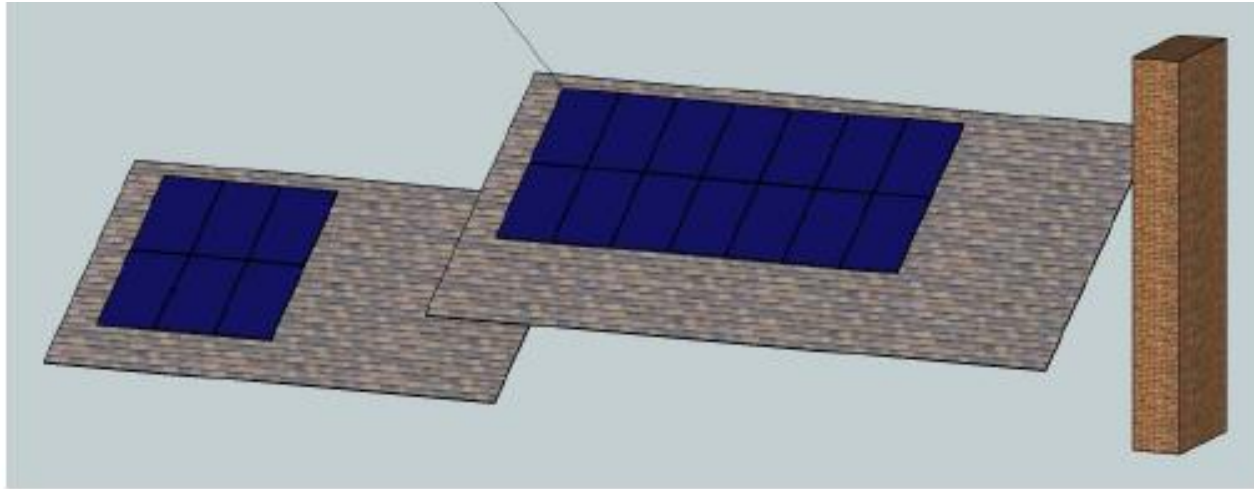
Sun's Path During
Summer and Winter



Tilt Impact



Shading Impact – A Local Example



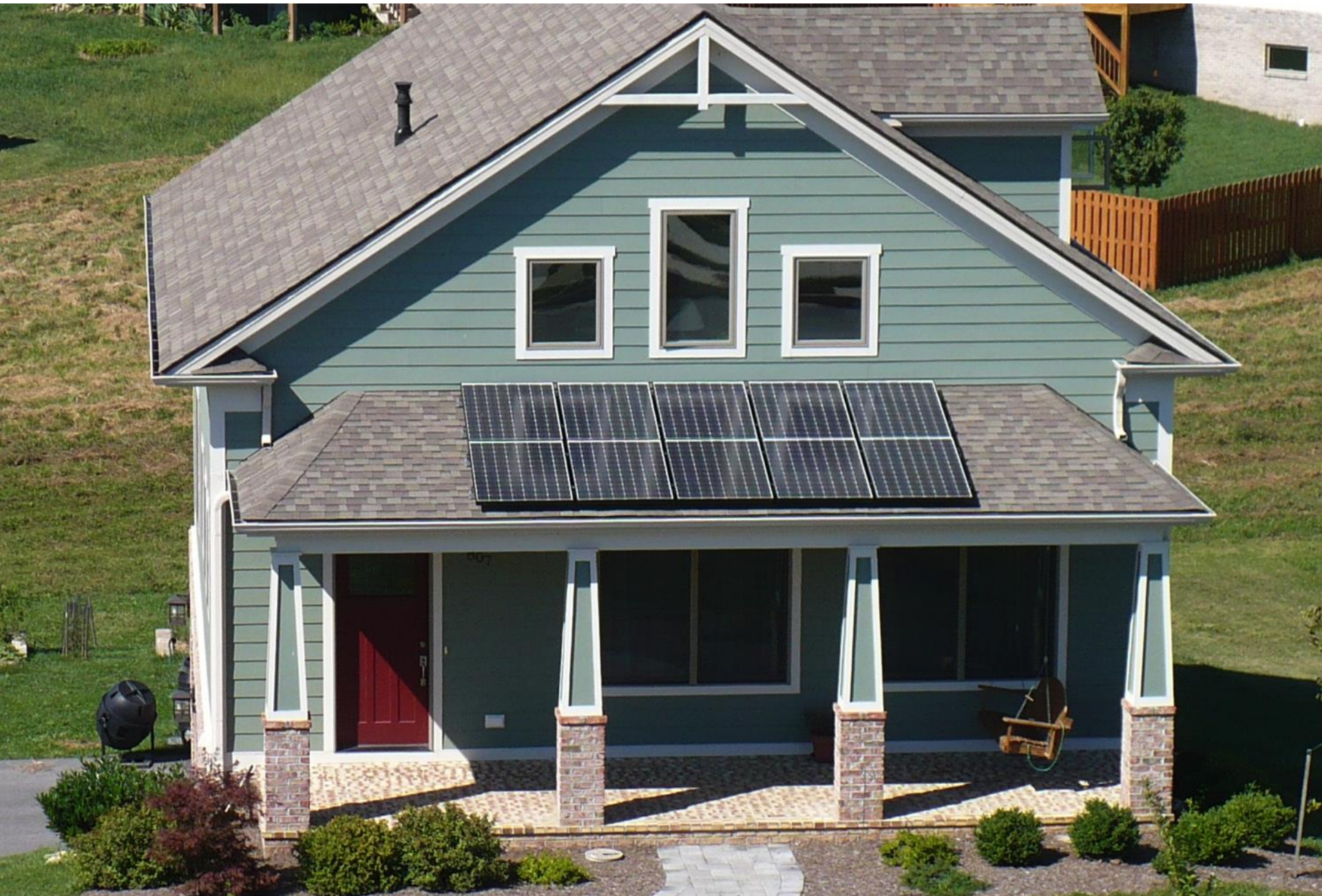
Here is a picture of the south side of the house, which faces onto the cul-de-sac at the end of Auburn Drive:



Size Determinants

- How much energy does the homeowner consume?
- How much of their energy consumption do they want to offset with their system? (25%, 50%, more?)
- What is the square area available for panels?

2 KW



6 KW



10 KW



Once the Board Has Developed
Knowledge Necessary to Determine
Reasonable Restrictions...

How are they established and
what are they?

Aesthetics

- Associations seek to preserve community aesthetics by placing restrictions on solar PV system:
 - Size
 - Placement
 - Tilt
 - Orientation
- Key is to be reasonable and to be clear
- Restrictions that “effectively prohibit” solar have had a harder time withstanding legal challenges in other states
- Avoid general statements: “subject to ARC review”

1970s Technology & Profiles



Now, more channels, plummeting prices
for new backyard
satellite-TV antennas



Modern Technology & Profiles



Modern Technology & Profiles



Examples of “Reasonable” Restrictions from other Virginia HOAs

- “Panels should be mounted as close flat on the roof as possible”
- “No part of the installation should be visible above the peak of the roof on which it is mounted”
- “Should be minimal space between panels”
- “Piping, wiring and color devices must be hidden or minimally visible”

- “Panels should be mounted as close flat on the roof as possible”
- “No part of the installation should be visible above the peak of the roof on which it is mounted”
- “Should be minimal space between panels”
- “Piping, wiring and color devices must be hidden or minimally visible”



The next few slides offer some aesthetic issues for HOAs to consider when developing their solar policies & restrictions ...



not-quite flush mount - is this okay?



working around other objects – is this okay?



panels sticking above or beyond roof line – is this okay?



ground-mount systems – are these okay?



a different kind of
ground-mount system – is this okay?



south & west facing system (broken) – is this okay?



shading accommodation – is this okay?



Tree and Shading Considerations

- “Owner shall take into consideration the future height of neighbors’ trees/shrubs when planning placement of a solar energy device. Under no circumstances shall a neighbor be required to remove or prune established plantings.”
- ***Not allowed in VA:*** “However, once a solar system is approved, adjoining neighbors may not build or plan structures that will obstruct solar collection, without prior approval from the neighbor owning the solar collectors.”
- However, neighbor-to-neighbor easements are permissible in Virginia to protect future solar access and production.

Recommendations to Homeowners: Provide Plans and Schematics to ARC



Recommendations To HOAs:

- Convene a stakeholders group within the HOA to develop and produce a set of design guidelines for solar.
- Give community members an opportunity to communicate values and preferences.
- Important time consideration – new law goes into effect July 1, 2014

Acknowledgements

A Beautiful Day in the Neighborhood

Encouraging Solar Development through Community
Association Policies and Processes

Prepared by



For





Solarize Blacksburg

QUESTIONS?

The Solarize Blacksburg Leadership Team:

Beth Lohman: ealohman@gmail.com

Carol Davis: cdavis@blacksburg.gov

John Randolph: energy@vt.edu