Design Guidelines: Alternative Energy

The term "alternative energy" covers a variety of technologies, including geothermal, wind and solar power. The guidelines below apply equally to each of these technologies, unless otherwise specified. The overall goal of the guidelines and the Historic Preservation Commission is to encourage the preservation of existing features that support sustainability, as well as the flexible implementation of new technologies to enhance it.

AE1 New alternative energy systems should be located to minimize their visibility from public streets and sidewalks. These systems should not be located on the primary elevation of a building, but should be on a secondary elevation and/or screened behind existing architectural features. Location on an accessory structure may also be an acceptable alternative. Related mechanical equipment and mounting structures should also be as inobtrusive as possible, with a non-reflective finish and a color that matches surrounding materials.

AE2 Historic or character-defining building or site features should not be damaged or obscured by the alternative energy system, or removed to accommodate the installation. Solar shingle laminates, glazing, or similar materials should not replace original or historic materials.

AE3 Installations should be done in a manner that is as readily reversibly as possible, so the components could be removed in the future with minimal impact to the original character of the building and/or site. The proposed method and materials for installation should be clearly identified in any Certificate of Appropriateness (COA) application for an alternative energy system installation.

AE4 When mounting an alternative energy generation system, consider and address threats to the structural integrity of the building that the installation may create, including excessive weight, forces that may be generated by windstorms, and water infiltration.

AE5 New structures are encouraged to incorporate integrated alternative energy features into the initial design. These features should be located in areas not highly visible from the public right-of-way whenever possible.

AE6 Free-standing or detached on-site solar panels or windmills should be installed in locations that minimize visibility from the public right-of-way and adjacent properties. Screening with appropriate fencing and/or vegetation is highly encouraged. The placement and design of these structures should not detract from the character of the district or destroy important site or landscape features.

AE7 For solar panels – if placed on the sloped roof of a structure, the angle of the solar panels should match the roof angle, and the panels should not extend beyond the edge of the roof on which the panels are installed. On flat-roofed structures, the panels should be set back from the roof edge to minimize visibility. Pitch and elevation should also be adjusted to reduce visibility from the public right-of-way. Total roof area covered by a solar installation should not exceed 90%.

The solar panels in the above example should have been installed in a much less conspicuous location. The tangle of wires leading down from the panels is also not consistent with these design guidelines.
The panels on the Nashville, Indiana church below are much more appropriately installed and are almost invisible at street level.

AE8 For solar panels – solar devices which appear as an awning may be considered for installation on the primary façade of a building.

AE9 Any alternative energy devices that fall into a state of disrepair or cease to be fully operational should be removed promptly and properly discarded. Any necessary building repairs should also be made promptly. If those repairs will include an alteration to the appearance or materials of the building, a COA may be required.