

2021 Virginia Construction Code

CHAPTER 31 SPECIAL CONSTRUCTION

SECTION 3111 SOLAR ENERGY SYSTEMS

3111.1 General.

Solar energy systems shall comply with the requirements of this section.

3111.1.1 Wind resistance.

Rooftop-mounted photovoltaic (PV) panel systems and solar thermal collectors shall be designed in accordance with [Section 1609](#).

3111.1.2 Roof live load.

Roof structures that provide support for solar energy systems shall be designed in accordance with [Section 1607.14.4](#).

3111.2 Solar thermal systems.

Solar thermal systems shall be designed and installed in accordance with [this section](#), the [International Plumbing Code](#), the [International Mechanical Code](#) and the [International Fire Code](#). Where light-transmitting plastic covers are used, solar thermal collectors shall be designed in accordance with [Section 2606.12](#).

3111.2.1 Equipment.

Solar thermal systems and components shall be *listed* and *labeled* in accordance with [ICC 900/SRCC 300](#) and [ICC 901/SRCC 100](#).

3111.3 Photovoltaic solar energy systems.

Photovoltaic solar energy systems shall be designed and installed in accordance with this section, the [International Fire Code](#), [NFPA 70](#) and the manufacturer's installation instructions.

3111.3.1 Equipment.

Photovoltaic panels and modules shall be *listed* and *labeled* in accordance with [UL 1703](#) or with both [UL 61730-1](#) and [UL 61730-2](#). Inverters shall be *listed* and *labeled* in accordance with [UL 1741](#). Systems connected to the utility grid shall use inverters *listed* for utility interaction.

3111.3.2 Fire classification.

Rooftop-mounted photovoltaic (PV) panel systems shall have a fire classification in accordance with [Section 1505.9](#). Building-integrated photovoltaic (BIPV) systems installed as roof coverings shall have a fire classification in accordance with [Section 1505.8](#).

3111.3.3 Building-integrated photovoltaic (BIPV) systems.

BIPV systems installed as roof coverings shall be designed and installed in accordance with [Section 1507](#).

3111.3.4 Access and pathways.

Roof access, pathways and spacing requirements shall be provided in accordance with [Section 1205](#) of the [International Fire Code](#).

3111.3.5 Ground-mounted photovoltaic systems.

Ground-mounted photovoltaic systems shall be designed and installed in accordance with [Chapter 16](#) and the [International Fire Code](#).

3111.3.5.1 Fire separation distances.

Ground mounted photovoltaic systems shall be subject to the *fire separation distance* requirements determined by the local jurisdiction.