Code Amendment Proposal Form
For public amendments proposed to the 2018 editions of the International Codes

Instructions: Upload this form and all accompanying documentation at www.denvergov.org/BuildingCode. If you are submitting your proposal on a separate sheet, make sure it includes all information requested below.

All proposals must be received by April 26, 2019.

CONTACT INFORMATION

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AMENDMENT PROPOSAL

Please use a separate form for each proposal.

1) Code(s) associated with this proposal. Please use acronym: IECC
If you submitted a separate coordination change to another code, please indicate which code: ___________________________

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Code Name</th>
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<tbody>
<tr>
<td>DBC-xxxx</td>
<td>Denver Building Code–xxxx (code) amendments (e.g., DBC-IBC, DBC-IEBC)</td>
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<tr>
<td>IBC</td>
<td>International Building Code</td>
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<td>IEBC</td>
<td>International Existing Building Code</td>
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<tr>
<td>IECC</td>
<td>International Energy Conservation Code</td>
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</tbody>
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2) Please check here if a separate graphic file is provided: ☐
Graphics may also be embedded within your proposal below.

3) Use this template to submit your proposal or attach a separate file, but please include all items requested below in your proposal. The only formatting needed is **BOLDING**, **STRIKEOUT** and **UNDERLINING**. Please do not provide additional formatting such as tabs, columns, etc., as this will be done by CPD.

**Code Sections/Tables/figures Proposed for Revision:**
IECC - Appendix RA

**Proposal:**

Replace Appendix RA with the following:
SECTION RA101
SCOPE

RA101.1 General. These provisions shall be applicable for new construction where solar-ready provisions are required.

SECTION RA102
GENERAL DEFINITION

RA102.1 General. The following term shall, for the purpose of this appendix, have the meaning shown herein.

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

SECTION RA103
SOLAR-READY ZONE

RA103.1 General. New detached one- and two-family dwellings, and townhouses with not less than 600 square feet (55.74 m²) of roof area oriented between 90 degrees and 270 degrees of true north, shall comply with Sections RA103.2 through RA103.10.

Exceptions:
1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building where all areas of the roof that would otherwise meet the requirements of Section T103 are in full or partial shade for more than 70 percent of daylight hours annually.

RA103.2 Construction document requirements for solar-ready zone. Construction documents shall indicate the solar-ready zone.

RA103.3 Solar-ready zone area. The total solar ready zone area shall be not less than 300 square feet (27.87 m²) exclusive of mandatory access or setback areas as required by the International Fire Code. New townhouses three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 square feet (185.8 m²) per dwelling shall have a solar-ready zone area of not less than 150 square feet (13.94 m²). The solar-ready zone shall be composed of areas not less than 5 feet (1524 mm) in width and not less than 80 square feet (7.44 m²) exclusive of access or set-back areas as required by the International Fire Code.

RA103.4 Obstructions. Solar-ready zones shall be free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

RA103.5 Shading. The solar-ready zone shall be set back from any existing or new, permanently affixed object on the building or site that is located south, east or west of the solar zone a distance not less than two times the object’s height above the nearest point on the roof surface. Such objects include, but are not limited to, taller portions of the building itself, parapets, chimneys, antennas, signage, rooftop equipment, trees and roof plantings.

RA103.6 Capped roof penetration sleeve. A capped roof penetration sleeve shall be provided adjacent to a solar-ready zone located on a roof slope of not greater than 1 unit vertical in 12 units horizontal (8-percent slope). The capped roof penetration sleeve shall be sized to accommodate the future photovoltaic system conduit, but shall have an inside diameter of not less than 11/4 inches (32 mm).

RA103.7 Roof load documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

RA103.8 Electrical service reserved space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled “For Future Solar Electric.” The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

RA103.9 Construction documentation certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

SECTION RA104
STORAGE-READY

RA104.1 General. New detached one- and two-family dwellings, and townhouses shall be provided with provisions for the future addition of onsite energy storage in accordance with Sections RA104.2 and RA104.3.
**RA104.2 Interconnection pathway.** The building shall be provided with conduit or piping from the solar-ready zone to the electrical service panel and electrical energy storage system area, or service hot water system.

**RA104.3 Electrical service reserved space.** The main electrical service panel shall have a reserved physical space to allow for installation of a dual-pole circuit breaker for future electrical energy storage system installation. This space shall be labeled “For Future Energy Storage.” The reserved space shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

**Supporting Information:**

**Purpose:**

The purpose of this proposal is to update Appendix RA with enhancements made to its counterpart Appendix T in the IRC and the addition of provisions for storage-readiness.

**Reason:**

Appendix RA and Appendix T are counterparts in the IECC and the IRC; however, Appendix T has been updated and Appendix RA has not. This proposal replaces the content of Appendix RA with Appendix T.

This proposal also introduces requirements from storage-readiness. Current or future constraints on electric grid capacity to accommodate existing and new distributed solar generation resources are requiring policy objectives to support the storage of energy produced by solar panels and shift its temporal impact on the grid.

This proposal modifies the Appendix to require conduit from a future battery location to the solar ready zone to the building electrical panel and that the panel has enough physical space to connect the battery in the future. As with the rationale for solar ready, it is generally much more cost-effective at the time of new construction to design for future installation of this equipment than it is to retrofit later in the building's life.

**Referenced Standards:**

NA

**Impact:**

- The effect of the proposal on the cost of construction: ☒ Increase ☐ Reduce ☐ No Effect
  - The proposal will increase the cost of construction, but the additional materials required are minor.
- The effect of the proposal on the cost of design: ☐ Increase ☐ Reduce ☒ No Effect
- Is the proposal more or less restrictive than the I-codes: ☐ More ☐ Less ☒ Same

**Departmental Impact:** (To be filled out by CPD staff)

**Note:** CITY STAFF ONLY. Discuss the impact of this proposal in this section AND indicate the impact of this amendment proposal for each of the following:

- The effect of the proposal on the cost of review: ☐ Increase ☐ Reduce ☐ No Effect
- The effect of the proposal on the cost of enforcement/inspection: ☐ Increase ☐ Reduce ☐ No Effect