CEPI-7 Consensus Proposal: Mandatory Storage Ready

**Add new definition as follows:**

**ENERGY STORAGE SYSTEM (ESS)**. One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time.

**Revise text as follows:**

**C103.2 Information on construction documents.** Construction documents shall be drawn to scale on suitable material… Details shall include, but are not limited to, the following as applicable:

 1. ….

14. Location reserved for inverters, metering equipment, ESS, and a pathway reserved for routing of raceways or conduit from the renewable energy system to the point of interconnection with the electrical service and the ESS.

15. Location and layout of a designated area for ESS.

16. Rated energy capacity and rated power capacity of the installed or planned ESS.

**Add new text as follows:**

**C405.15 Electrical energy storage system.** Buildings shall comply with one of C405.15.1 or C405.15.2.

**C405.15.1 Electrical energy storage energy capacity.** Each building shall have an ESS with rated energy capacity and rated storage capacity as follows:

1. ESS rated energy capacity (kWh) ≥ 1.0 x Installed PV System Rated Power (kWDC)
2. ESS rated power capacity (kW) ≥ 0.25 x Installed PV System Rated Power (kWDC)

**Exception:** DC-coupled battery systems shall comply with energy capacity only.

**C405.15.2 Electrical energy storage system ready**. Each building shall have a reserved ESS-readyarea to accommodate future electrical storagemeeting the following electrical criteria:

1.Energy storage system rated energy capacity (kWh) ≥ Area of three largest stories (ft2) x 0.0008 kWh/ft2

2. Energy storage system rated power capacity (kW) ≥ Area of three largest stories (ft2) x 0.0002 kW/ft2

**C405.15.2.1 ESS-ready location**. Each ESS-ready area shall be located in accordance with Section 1207 of the *International Fire Code.*

**C405.15.2.2 ESS-ready minimum area requirements.** Each ESS-ready area shall be sized in accordance with the designated rating of the planned system UL9540 or UL9540a. Where rated to UL9540a, the spacing shall be per the manufacturer’s instructions.

**C405.15.2.3 Electrical distribution equipment**

The onsite electrical distribution equipment shall have sufficient capacity, rating, and space to allow installation of overcurrent devices and circuit wiring in accordance with NFPA 70 for future electrical ESS installation meeting the criteria of Section C405.15.3.

**Revise as follows:**

**CB103.6 Interconnection pathway.**

Construction documents shall indicate pathways for routing of conduit or piping from the solar-ready zone to the electrical service panel ~~and electrical energy storage system area~~ or service hot water system.

**~~CB103.7 Electrical energy storage system-ready area.~~**

~~The floor area of the electrical energy storage system-ready area shall be not less than 2 feet (610 mm) in one dimension and 4 feet (1219 mm) in another dimension, and located in accordance with Section 1207 of the International Fire Code. The location and layout diagram of the electrical energy storage system-ready area shall be indicated on the construction documents.~~

**~~CB103.8~~ CB103.7 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 and ~~a dual-pole circuit breaker for future electrical energy storage system installation. These spaces~~ shall be labeled “For Future Solar Electric ~~and Storage~~.” The reserved ~~spaces~~ space shall be positioned at the end of the panel that is opposite from the panel supply conductor connection.

**~~CB103.9~~ CB103.8 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.