**Interpretation:** Energy purchased from a Power Purchase Agreement (PPA)

**Designation:** 301-2019-013

**Approved:** June 2, 2020 by RESNET SDC 300

**Effective Date:** July 1, 2020

**Reference:**

Standard ANSI/RESNET/ICC 301-2019

 Page Number(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Sections(s): \_\_3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Table(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Relating to: \_\_ Various definitions\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Request from**:

 Name: \_\_\_ Gayathri Vijayakumar \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Affiliation: \_\_\_Steven Winter Associates, Inc.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Address: \_\_\_61 Washington Street, 2nd floor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 City: \_\_Norwalk\_\_\_\_\_ State: \_\_CT\_\_\_\_\_\_\_\_\_\_\_\_ Zip: \_\_06854\_\_\_\_\_

 Email: \_\_\_\_\_\_\_\_ gayathri@swinter.com \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Background Statement:** *Provided by person requesting the interpretation.*

A common practice is for solar PV installers to offer no-cost or low-cost solar PV installations and instead establish power purchase agreements or PPA’s with the building owner or homeowner, whereby they purchase the electricity generated by the solar panels. This occurs more often for existing homes than new construction homes, but can be typical of multifamily properties, both new and existing.

A recent [Interpretation Request](https://www.resnet.us/wp-content/uploads/No.-301-2014-017-Off-Site-Chiller.pdf) related to shared off-site chillers, stated that: “all Purchased Energy used to serve the end use loads in a Rated Home must be accounted for when performing an Energy Rating.”

The definitions from ANSI/RESNET/ICC 301-2019 state the following:

***On-Site Power Production (OPP)*** – Electric power produced on the site of a Rated Home. OPP shall be the net electrical power production such that it equals the gross electrical power production minus any purchased fossil fuel energy used to produce the on-site power, converted to equivalent electric energy use at a 40-percent conversion efficiency in accordance with Equation 4.1-3 of this Standard.

***Purchased Energy*** – The portion of the total energy requirement of a home purchased from a utility or other energy supplier.

***Energy Rating –*** An unbiased indication of a Dwelling Unit’s relative energy performance based on consistent inspection procedures, operating assumptions, climate data and calculation methods in accordance with this Standard.

***Energy Rating Index (ERI)*** – A numerical integer value that represents the relative energy use of a Rated Home as compared with the energy use of the Energy Rating Reference Home and where an Index value of 100 represents the energy use of the Energy Rating Reference Home and an Index value of 0 (zero) represents a home that uses zero net Purchased Energy annually.

The following interpretation is needed because the solar generated electricity purchased through a PPA meets the definition of both OPP and Purchased Energy, leading to an inconsistency when calculating the ERI, since the inherent assumption in the calculation below from ANSI 301-2019 is that OPP is **not** Purchased Energy.

*Energy Rating Index =* ***PEfrac*** *\* [TnML / (TRL\* IAFRH)] \* 100*

*PEfrac        = (TEU - OPP) / TEU*

*TEU           = Total* ***energy use*** *of the Rated Home including all rated and nonrated energy features where all fossil fuel site energy uses (Btufossil) are converted to equivalent electric energy use (kWheq) in accordance with Equation 4.1-3.*

*OPP           = On-Site Power Production as defined by Section 4.2.2.6 of this Standard.*

Related to this topic, the RESNET Board of Directors in 2015 issued a policy which stated: “It shall be the policy of RESNET that the net power production of on-site power production shall be considered non-purchased energy regardless of the ownership of the on-site power production system.” However, that was developed in specific response to PV systems that are leased, which is different than a PPA. In 2018, the RESNET Board revisited this policy with regard to RECS, and again upheld the policy.

This interpretation seeks clarity specifically regarding PPA’s, since they were not a consideration when developing the initial policy and it is not clear if the RESNET Board policy is only limited to HERS Ratings, since the policy language is not part of ANSI/RESNET/ICC 301.

**Proposed Interpretation:** *Provided by person requesting the interpretation.*

While On-Site Power Production (OPP) may not have initially been considered Purchased Energy, where it is “purchased” from a supplier, such as through a Power Purchase Agreement (PPA), it is no longer considered “OPP” for the purpose of calculating an ERI.

**SDC Response:**

Is the proposed interpretation correct? \_\_\_\_\_ Yes \_\_\_X\_\_ No

**SDC Comments:**

The Energy Rating Index is intended to be an asset rating that evaluates the assets of the building. If there is an On-Site Power Production (OPP) system, it is a building asset. The OPP should be considered by the rating regardless of whether it is “purchased” from a supplier, such as through a Power Purchase Agreement (PPA).