



Interpretation: Off-site Chiller Indirectly Serving Individual Homes w/Ground Source Heat Pumps

Designation No: 301-2014-17

Approved: March 30, 2019 by RESNET SDC 300

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Request from: Name: RESNET Staff

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Reference: This request for interpretation refers to the requirements presented in Standard: 301-2014

Page Number(s): _____

Section(s): 4.3.5

Table(s): _____

Relating to: _____

Background (provided by Requester):

Residential developments can be designed around large-scale use of ground source heat pump technology. One limitation is that during peak demands and sometimes during normal operation, the ground water temperature for the local aquifer can be altered enough to reduce the efficiency or even make the individual pumps on each home unable to meet the load. One method to address this is to use a commercial scale chiller owned by the HOA for the sole purpose of cooling ground water. This creates a problem when rating each individual home because no guidance exists for how and whether to account for off-site chiller energy within the RESNET or ANSI Standards for this application.

Requester's Interpretation: _____
Community off-site energy associated with Rated Homes shall be accounted

Community off-site energy associated with Rated Homes shall be accounted for in the Energy Rating Index by including a fraction of the total annual projected energy use for the community off-site energy use in the energy use of each home served. The amount of energy assigned to each home and the way it is included in the rating software shall be based on the information available at the time of the rating. The specific approach used to apportion the projected energy use from a community off-site energy system to the Rated Homes shall be determined by a Professional Engineer registered in the state where the project is located or via an Innovative Design Request submitted to and approved by RESNET.

Question: Is this Interpretation correct?

SDC300 Yes

Answer:

SDC300

Comments:

The SDC300 agrees with the Requester's Interpretation of the Standard. As described within ANSI/RESNET/ICC 301-2014, all Purchased Energy used to serve the end use loads in a Rated Home must be accounted for when performing an Energy Rating (see definition below from ANSI/RESNET/ICC 301-2014).

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

In this case, Purchased Energy includes all energy used to meet the space cooling end use load for the Rated Home, whether on-site or off-site.