INTERPRETATION IC 90.1-2013-16 OF
ANSI/ASHRAE/IES STANDARD 90.1-2013
Energy Standard for Buildings Except Low-Rise Residential Buildings

Date Approved: January 21, 2018

Request from: Emily Hoffman, New York City Department of Buildings, 280 Broadway, New York, NY 10007.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IES Standard 90.1-2013, Section 11.4.3.2 and Table 11.5.1, regarding energy modeling cogeneration systems.

Background: A cogeneration system or combined heat and power (CHP) system is powered by fossil fuel, generates electricity on-site, and produces waste heat that is recovered for space heating, service water heating, and/or powering absorption chillers. If the CHP system were to fail, the backup energy source for the on-site generated electricity is purchased electricity.

Based on Table 11.5.1 #1 Column B, all building systems and equipment must be modeled identically in the budget building design and proposed building design except as specifically instructed in this table. Table 11.5.1 does not cover CHP systems.

Based on Section 11.4.3.2, "where ...site-recovered energy is used, the budget building design shall be based on the energy source used as the backup energy source, or electricity if no backup energy source has been specified".

Interpretation: Since Table 11.5.1 does not cover CHP systems, the budget building design and the proposed design must be modeled with the same CHP system that is specified for the proposed design.

Following Section 11.4.3.2, where CHP waste heat is recovered in the proposed design, the budget building design shall be based on the energy source used as the backup energy source, or electricity if no backup energy source has been specified.

In the proposed design, the recovered waste heat must not be considered purchased energy and must be subtracted from the proposed design energy consumption prior to calculating the design energy cost based on Section 11.4.3.1.

Question: Is this interpretation correct?

Answer: Yes.