

**INTERPRETATION IC 90.1-2004-8 OF
ANSI/ASHRAE/IESNA STANDARD 90.1-2004
Energy Standard for Buildings Except Low-Rise Residential Buildings**

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE/IESNA Standard 90.1-2004, Section G2.4, relating to energy rates.

Background: A significant number of projects rely on district chilled water/steam/hot water systems. The rates charged for purchased energy from these systems can sometimes be significantly inflated due to built-in cost for maintenance, equipment amortization, and so on. While these plants can be very efficient from a source energy usage standpoint, due to cogeneration, the utility rates charged do not always reflect this. It is possible for a building to meet all the mandatory and prescriptive requirements of ASHRAE/IESNA Standard 90.1 and still fail Appendix G, due to the requirement that a chiller/boiler plant be modeled for the baseline. This clearly does not seem to be the intent of the code, in that it can discourage use of high-efficiency district systems found on university campuses, for example. Energy cost should not be the only metric used when dealing with district systems.

Interpretation: The energy simulator may develop a utility rate structure for the proposed model based on natural gas and electricity rates used for the baseline model, as well as the actual efficiency (output energy / input source energy) of the district plant.

Question: Is this interpretation correct?

Answer: No

Comments: Appendix G has provisions for consideration of purchased heat in Section G3.1.1.1, but no similar provision exists for purchased cooling. The baseline system should be modeled based on the requirements of Table G3.1.1A, as an onsite electric cooling system.

The ECB subcommittee is considering revisions to the treatment of district cooling, and would welcome your input.