



AIA/GREENSOURCE CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article “The Pursuit of ‘Net’ Zero Energy” using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers on the AIA/CES education reporting form provided.
- ◆ Complete and submit this AIA/CES education reporting form or complete the form online at construction.com/CE/ to receive one AIA learning unit.

QUESTIONS

1. The non-profit organization, Architecture 2030, advocates all except which?
 - a. It calls for an immediate 50 percent reduction in fossil fuel use in new buildings
 - b. It calls for a 20 percent reduction in fossil fuel use within 30 years
 - c. It calls for climate-neutral buildings by the year 2030
 - d. It calls for a dramatic reduction of greenhouse gas emissions from buildings
2. Zero carbon refers to which condition?
 - a. a building consumes no non-renewable energy
 - b. an organization purchases carbon offsets or credits sold on an open market that finance renewable energy projects
 - c. a building’s carbon emissions are offset by the generation of energy through non-carbon-emitting means
 - d. a building produces more renewable energy on site on an annual basis than any non-renewable energy it consumes
3. Energy-saving technologies appropriate for a residential construction would be all except which?
 - a. Energy Star appliances
 - b. high-performance windows
 - c. incandescent lighting
 - d. dense pack insulation
4. Reaching a zero-energy goal requires all except which in the design process?
 - a. engineering to meet the codes
 - b. a team effort
 - c. collaboration among design disciplines
 - d. an integrated design process
5. To reach its zero-energy goal, the Solar 2 design team is focusing on all except which?
 - a. energy load reduction
 - b. thermal efficiency
 - c. energy sources
 - d. low density construction
6. The advantages of on-site combined heat and power (CHP) plants are all except which?
 - a. less energy is lost than would be in transmission and conversion of utility-supplied electricity
 - b. CHP can be combined with renewable on-site technologies such as solar or wind power
 - c. CHP plants produce more emissions than single-source heat or electricity plants would
 - d. CHP plants can be fueled with biomass
7. The BedZED project used which source to fuel their heat and energy plant?
 - a. low-sulfur coal
 - b. urban tree waste
 - c. natural gas
 - d. wind power
8. The Jubilee Wharf project uses heat exchange units for which purpose?
 - a. to heat the underground spaces
 - b. to cool the warm side of the building
 - c. to recover waste heat
 - d. to exhaust the hot air from the building
9. Which is planned to be added to Jubilee Wharf to make it carbon neutral?
 - a. additional wind turbines
 - b. PV panels
 - c. a wood pellet boiler
 - d. both a and b
10. The addition of which allowed Lewis Center at Oberlin College to achieve carbon-negative status in 2005?
 - a. wind turbines
 - b. a 100 kW PV array to the center’s roof
 - c. a 100 kW PV array to the roof of an adjacent parking garage
 - d. a wood pellet boiler

Program title: “The Pursuit of ‘Net’ Zero Energy,” *GreenSource* magazine (October 2007, page 106).

AIA/CES CREDIT: This article will earn you one AIA/CES LU of health, safety, and welfare credit. (Valid for credit through October 2009).

DIRECTIONS: Select one answer for each question in the exam and completely circle the appropriate letter. A minimum score of 80 percent is required to earn credit. Take this test online at <http://construction.com/CE/>.

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Material resources used: Article: This article addresses issues concerning health and safety.								
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