Quiz #8 - LEED Green Associate

GA02 – Pgs. 319-320

GA09 – Pgs. 64-85

GBLCC Section 4: Green Building Core Concepts and Application Strategies: Energy and Atmosphere

1. A study by the New Buildings Institute found that in green buildings, average energy use intensities (energy consumed per unit of floor space) are what percentage lower than in typical buildings.
2. 2%
3. 15%
4. 24%
5. 50%
6. How is energy use intensity measured?
7. KWh
8. KBtu/sf/yr
9. gpm
10. therms/sf/yr
11. By improving the efficiency of buildings and communities, what environmental impact can be significantly reduce?
12. Greenhouse Gas Emissions (GHGs)
13. Acidification
14. Landfill Gas
15. Erosion and sedimentation in receiving streams
16. According to the LEED Core Concepts Guide a typical code-compliant 135,000-square-foot office building in a car-oriented suburban location will be responsible for approximately how many tons of carbon?
17. 4.6 T per person
18. 11.8 T per person
19. 25.0 T per person
20. 3,233 T per person
21. Which of these describes a net-zero energy project?
22. Emitting no more carbon emissions than they can either sequester or offset
23. Use no more electricity from the grid than they generate on site
24. Using only grid source electricity
25. Purchasing 100% of all electricity used as RECs
26. What program set up by EPA as a part of the ENERGY STAR program, is an interactive, online management tool that supports tracking and assessment of energy and water consumption?
27. ENERGY SENSE
28. ENERGY WISE
29. Target Finder
30. ENERGY STAR Portfolio Manager
31. Which of these design strategies could help a project to reduce their demand for energy?
32. Building Orientation
33. Increased FAR
34. On-site energy production
35. Monitor consumption
36. What program encourages electricity customers to reduce their usage during peak demand times, helping utilities optimize their supply-side energy generation and delivery systems?
37. Demand Reduction (DR)
38. Renewable Energy Certificates (RECs)
39. Demand Response (DR)
40. ENERGY STAR
41. The building envelope, the space between exterior and interior environments of a building typically includes?
42. Roof; basement; foundation
43. Windows; walls; roof
44. Ceilings; floors; doors
45. Attics; Basements; walls
46. Appliances meeting or exceeding what standard will help a project to reduce plug load demands?
47. ENERGY WISE
48. ENERGY SMART
49. ENERGY STAR
50. ENERGY SENSE
51. Which of these is an effective strategy to help a project to identify and prioritize energy efficiency design opportunities?
52. Select High Efficiency Air Conditioners
53. Use Energy Simulation
54. Survey the building occupants
55. Reduce plug loads
56. How can a project purchase off-site renewable energy to offset the buildings energy use if it is not available from a local utility provider?
57. Install PV panel’s on-site equal to the off-site electricity the project wants to purchase
58. Purchase renewable energy certificates (RECs)
59. Purchase the excess electricity generated by a project within 100 miles of the site
60. Buy Green Power on the Internet
61. What is the process called that systematically investigates by skilled professionals who compare building performance with performance goals, design specifications, and most importantly, the owner’s requirements?
62. Energy Modeling
63. Commissioning
64. Whole-Building Analysis
65. Performance Feedback
66. A Lawrence Berkeley National Laboratory study found that commissioning new construction had a median payback time based on energy savings of how many years?
67. 0.7
68. 1.7
69. 3.6
70. 4.8
71. Which of these treaties banned the production of chlorofluorocarbon (CFC) refrigerants and is phasing out hydrochlorofluorocarbon (HCFC) refrigerants?
72. The Kyoto Treaty
73. The Montreal Protocol
74. ASHRAE
75. SMACNA

1. What refrigerant can be used by a LEED project?
2. Halon
3. Hydropentachlorodimethyl (HPD)
4. Chlorofluorocarbons (CFC)
5. Hydrofluorocarbons (HFC)
6. Where can projects purchase renewable energy certificates (RECs)?
7. Almost anywhere
8. Only in locations that have deregulated power
9. In areas that have a wind farm within 100 miles of the project
10. Only from a utility company that has a green pricing program
11. What does renewable electricity refer to?
12. Eco-friendly electricity
13. Indirect greenhouse gas emissions associated with the generation of purchased electricity
14. Grid electricity
15. Energy from residential windmills
16. Green power is
17. Only produced by a PV array or wind turbine, owned by a third party
18. Less expensive than conventional power
19. Only available for new construction projects
20. Typically purchased at a premium price
21. Which of these is a natural refrigerant?
22. Ammonia (NH3)
23. HFC-134A
24. CFC-11
25. HCFC-123