Question 1. (Single Select)

A project has performed an energy model which has resulted in the following energy end use consumption:

exterior lighting	6%
interior lighting	12%
space heating	13%
space cooling	19%
interior fans	18%
service water heating	8%
receptacles	24%

To meet the requirements for Energy and Atmosphere Credit, Advanced Energy Metering, Option 2. Advanced Metering, energy meters must be installed for energy end uses in

A: space cooling, interior fans and receptacles
B: interior lighting, space heating, space cooling and interior fans
C: interior lighting, space heating, space cooling, interior fans and receptacles
D: exterior lighting, interior lighting, space heating, space cooling, interior fans, service water heating and receptacles

Correct Answer: C

Explanation:

The LEED v4 criteria for the Energy and Atmosphere Credit, Advanced Energy Metering, Option 2 requires advanced energy metering for all whole-building energy sources as well as for any individual energy end uses that account for 10% or more of the total annual consumption of the building. From the provided energy end-use consumption data, it is clear that space cooling, interior fans, and receptacles each represent more than 10% of the total energy consumption.

Additionally, interior lighting and space heating together also account for a significant portion of the energy consumption. Hence, to meet the credit requirements, advanced metering must be installed for all these categories, aligning with option C.

Question 2. (Single Select)

Which of the following information is needed to document the non-structural elements that will be reused from the existing space in a LEED AP Interior Design and Construction project?

A: Elevations and space plans
B: A tracking spreadsheet and cut sheets
C: Cut sheets and drawings indicating elements to be reused
D: Drawings indicating elements to be reused and a tracking spreadsheet

Correct Answer: D

Explanation:

To document the non-structural elements that will be reused in a LEED AP Interior Design and Construction project, it is necessary to have drawings that indicate the elements to be reused. These drawings provide a visual representation of what is being kept from the existing space. Additionally, a tracking spreadsheet is essential for documenting the details of these elements, including their condition, location, and any other relevant information that supports the reuse strategy.

Question 3. (Single Select)

When developing the overall energy strategy of the project, which credit should the client consider to work synergistically with the Energy and Atmosphere Credit, Enhanced Commissioning, on an ongoing basis?

A: Advanced Energy Metering
B: Renewable Energy Production

C: Green Power and Carbon Offsets
D: Enhanced Refrigerant Management

Correct Answer: A

Explanation:

Advanced Energy Metering is the credit that works synergistically with the Energy and Atmosphere Credit, Enhanced Commissioning. This is because Advanced Energy Metering involves the implementation of submetering systems that provide data on the building's energy use. This data is crucial for the ongoing commissioning process to ensure that the building's systems are operating as intended over time. The data helps in identifying opportunities for energy savings and ensures that energy conservation measures continue to perform optimally12.

LEED v4 for Building Design and Construction Guide3.

LEED Credit Library - Energy and Atmosphere4.

Advanced Energy Metering Credit Information1.

Question 4. (Single Select)

A tenant is soliciting proposals for a Commissioning (Cx) agent for Energy and Atmosphere Credit, Enhanced Commissioning. Which qualification must the agent meet?

A: Subcontractor of construction manager
B: Not an employee of the project design firm
C: Member of the Building Cx Association
D: Commissioning Authority (CxA) with experience in at least one prior project

Correct Answer: B

Explanation:

The Commissioning (Cx) agent for Energy and Atmosphere Credit, Enhanced Commissioning, must be independent of the project's design and construction management to avoid conflicts of

interest. This ensures that the Cx agent can objectively assess the project's performance and adherence to design intentions.

Question 5. (Single Select)

Which of the following appliances are included in Water Efficiency Prerequisite, Indoor Water Use Reduction?

A: Commercial dishwashers and coffee makers
B: Residential clothes washers and dishwashers
C: Residential dishwashers and drinking fountains
D: Commercial clothes washers and coffee makers

Correct Answer: B

Explanation:

The Water Efficiency Prerequisite for Indoor Water Use Reduction in LEED AP ID+C V4 focuses on reducing the aggregate indoor water consumption by 20 percent from the baseline. This includes water usage by appliances such as residential clothes washers and dishwashers, which are common contributors to indoor water use.

In the Water Efficiency Prerequisite for Indoor Water Use Reduction, the focus is on reducing potable water usage through efficient fixtures and appliances. The eligible appliances that fall under this prerequisite are residential clothes washers and dishwashers, as they are commonly used appliances within buildings and contribute to indoor water use. These appliances must meet certain efficiency standards, such as being ENERGY STAR certified or equivalent, which ensure they use less water than conventional models.