

Medium

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Consider the following statements regarding the "Payback Period" in energy projects: 1. It is the time taken for the cumulative energy savings to equal the initial

A

1 only

B

1 and 2 only

Correct

C

2 and 3 only

D

1, 2 and 3

Correct Answer: B

Full Detailed Explanation

Correct Answer: B - 1 and 2 only

Quick Concept Explanation Simple payback is easy and useful for first screening, but it is not a complete profitability measure. Discounted payback, NPV and IRR address time value more explicitly. Key relation: If annual savings are uniform: $SPP = \text{Initial investment} / \text{Annual net savings}$. Discounted methods use $PV = CF_t / (1+r)^t$. Exam focus: Whenever a question says simple payback, immediately remember no time value of money. Common trap: Confusing simple payback with discounted payback or NPV.

Statement-wise Verification

Statement 1 - Correct. It is the time taken for the cumulative energy savings to equal the initial investment. Payback measures the recovery time of the original investment from savings/cash inflows.

Statement 2 - Correct. A shorter payback period indicates a more financially attractive project. As a screening rule: shorter recovery generally means lower capital exposure and is usually viewed as more attractive, all else equal.

Statement 3 - Incorrect. Simple Payback Period (SPP) accounts for the "Time Value of Money". The defining limitation of simple payback is that it does not discount future cash flows and therefore ignores time value of money.

Core Concept Simple payback is easy and useful for first screening, but it is not a complete profitability measure. It ignores cash flows after the