MGB ACADEMY
C-PACE for Architects & Engineers

Capstone Exercise & Knowledge Check

Exercise prompt, evaluation rubric, and ten-item assessment with answer key

Program metadata	Detail
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INTERNAL — CONTAINS ANSWER KEY

Instructor and administrator copy. The answer key is included and this version is not for learner distribution — issue the learner edition with the key section removed.

Mastery is set at 80%. Confirm whether the A/E track issues a credential or an orientation record before the completion screen copy is finalized.

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Capstone exercise — the re-scope

Prompt for the learner:

> **THE EXERCISE**
>
> Take a commercial project from your own recent experience whose scope was reduced during value engineering. Working from what you remember of the building and the cut scope, prepare a one-page re-scope memorandum that does four things: identifies the cut measures that fall within the eligible categories; states the economic benefit components you would document, with the basis for each; identifies the two assumptions that would drive the result and how you would stress them; and names the point in the project timeline at which the C-PACE conversation would have had to begin for the outcome to change.
>
> One page. No modeling required. The exercise is about sequence and documentation strategy, not calculation.

Evaluation rubric

Criterion	Weight	Meets expectations when...
Eligible scope identification	20%	Cut measures are correctly sorted into eligible categories, with soft costs recognized
Benefit framing	25%	Benefit is stated as the statutory standard and is built from multiple components, not energy savings alone
Assumption discipline	20%	Driving assumptions are identified with a stress approach, not a single confident figure
Timeline and sequence	20%	The intervention point is named early enough to matter — before the budget meeting, not after
Professional framing	15%	Opinion framing used throughout; no guarantee language; reliance identified
Overall	**100%**	**Mastery at 80%**

Knowledge check — ten items

1. Under Missouri law, the requirement a C-PACE project must satisfy with respect to the owner is that:

a) the savings-to-investment ratio is at least 1.0 b) the property owner receives an economic benefit from the financed project c) a licensed engineer certifies future savings d) the payback period is shorter than the assessment term

2. The maximum C-PACE assessment term under the Missouri framework is:

a) ten years b) fifteen years c) twenty years d) the useful life of the measure, without a stated cap

3. The savings-to-investment ratio, correctly described, is:

a) a statutory qualification threshold b) evidence supporting the economic benefit determination c) required only on new construction d) set by the capital provider

4. Which of the following is NOT ordinarily part of the economic benefit record?

a) avoided capital replacement b) deferred maintenance c) projected appreciation in property value d) demand charge reduction

5. The C-PACE assessment differs from a mortgage most fundamentally because:

a) it carries a lower interest rate b) the obligation runs with the property rather than the borrower c) it does not require documentation d) it is issued by a bank

6. The feature that most often makes a senior lender willing to consent is that the assessment:

a) is subordinate to the mortgage b) does not accelerate on default c) can be prepaid at any time d) is guaranteed by the district

7. On new construction, the amount ordinarily financed is:

a) the full cost of the eligible systems b) the incremental cost above the applicable baseline c) the soft costs only d) fifty percent of eligible cost

8. In a completion certification, the design professional is certifying:

a) that projected savings will be achieved b) that the improvements were installed and observed to function as designed c) that the equipment will not fail during the term d) that the owner has benefited financially

9. A client asks you to raise the energy escalation rate to improve the ratio. The appropriate response is to:

a) revise the base case as requested b) decline and end the engagement c) present it as a labeled sensitivity case while retaining the base case d) remove the sensitivity analysis

10. Because there is no numerical threshold test, the burden on professional judgment and documentation is:

a) reduced b) unchanged c) increased d) transferred to the capital provider

Answer key and rationales

Item	Answer	Rationale
1	b	The statutory test is economic benefit to the owner. No SIR requirement exists in statute.
2	c	Twenty years is the maximum term. "Useful life without a cap" is the common misstatement.
3	b	The ratio documents benefit. It is recommended practice, not a gate.
4	c	Appreciation is speculative and does not belong in a benefit record; the other three are documentable.
5	b	The assessment attaches to the property and ordinarily transfers on sale.
6	b	Non-acceleration limits lender exposure to delinquent installments rather than the full balance.
7	b	Incremental cost above a stated baseline, with the baseline authority named.
8	b	A factual certification of installation and observed function — not a performance guarantee.
9	c	Sensitivity cases are legitimate; moving the base case on request is not.
10	c	Absence of a threshold raises the burden on judgment and documentation rather than lowering it.

> *Items 1, 2, 3, and 10 test the v1.1 correction and should not be dropped when the assessment is shortened. Items 1 and 3 in particular reverse the belief most learners arrive with.*

Instructor edition. Remove the answer key section before learner distribution. Confirm the completion designation — credential or orientation record — before the completion screen copy is finalized.