
Review of Proposal Volume 1: Technical Proposal

- ECM Descriptions
- ECM Performance Measurement
 - M&V Plan and energy/O&M baselines
 - Commissioning approach (not full plan)
- Management Approach
 - Organization, RRPM, O&M/R&R, Training



Review of ECM Descriptions

- Complete and understandable ECM descriptions should specify:
 - Affected location (building, area within building, affected floor area, etc.)
 - Potential interfaces with existing government equipment
 - Information on brand, model, size, including catalog “cut sheets”
 - All utility interruptions or physical changes to existing equipment or facilities required to implement ECMs

ECM Energy and Cost Savings — The Basis for the Savings Guarantee (Review Carefully)

- The proposal shows for each ECM
 - Projected energy and energy cost savings
 - Projected energy-related cost savings
- ESCOs (almost) never guarantee 100% of estimated savings
 - Guaranteeing less is a safety net
 - Portion guaranteed depends on complexity of ECMs, predictability of savings, M&V type, O&M/R&R, other

3

Reviewing Engineering Calculations and Assumptions

- Government review to establish:
 - Rationale/ basis for savings is reasonable
 - Based on sound engineering principals
 - Correct (i.e., check the math, spot-check large repetitive spreadsheets)
- Review of assumptions
 - All should be documented
 - You can't know that savings estimates are realistic if assumptions are invalid !

4

Spreadsheets and Building Energy Simulations

- No black boxes!
- Building energy simulations
 - An acceptable way to document annual energy savings
 - Require input/output data to be provided on disk with proposal

5

O&M Savings

- Defined: A reduction in costs for operation and/or maintenance resulting from installation of new ECMs
- Savings for both labor and materials are acceptable
- Verify that ESCO estimates of O&M savings comply with FEMP and agency guidance on acceptable O&M savings

6

Summary: Review of ECM Energy and Cost Savings

- Thorough review includes:
 - Validation of calculation methods and arithmetic
 - Validation of assumptions and building energy simulations
 - Validation of unit costs of energy and labor rates
 - Verification that energy and cost savings for each ECM are properly identified in Schedule TO-4
- Note that FEMP ESPC team experts can help with review of advanced technologies

7

Evaluating ESCO's Management Approach

- ESCO's organizational structure
- Risk, Responsibility, and Performance Matrix
- Proposed O&M and R&R services
 - Do responsibilities meet site needs and requirements?
- Project timeline
 - Well-suited for successful implementation?
- **Note** that Management Plan and M&V section have most of backup/substantiating on pricing for performance-period services

8

Review Questions

Q1: Name two things you'll find in the "Management Approach" section of the proposal.

A:

- ESCO's organizational structure
- Risk, Responsibility, and Performance Matrix
- Proposed level of O&M services
- Proposed repair and replacement services
- Project management approach and project timeline

9

Q2: About how much of the estimated savings does the ESCO usually guarantee?

A: Less than 100% — 95 – 99%

Q3: You should validate assumptions and calculation methods, but you can usually assume the math is correct — right?

A: Wrong

Q4: Where can you get help with review of "advanced" or renewable ECMs?

A: The FEMP ESPC team – national lab experts

10



Break ►

Next :
Proposal Review – TO Schedules ►