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The webinar will start momentarily...

Reviewing Your Technical Proposal

September 20, 2022

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U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

Reviewing Your Technical Proposal

September 20, 2022

FEMP Federal Energy Management Program

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Welcome!

Webinar Logistics

- Call in for the best audio connection!
- Please ensure your phone/computer is muted throughout the webinar
- Logistical issues: wbdg@nibs.org
- Send questions to all panelists in the Q&A window
- Contact us through the FEMP Assistance Request Portal
- IACET-certified CEUs available
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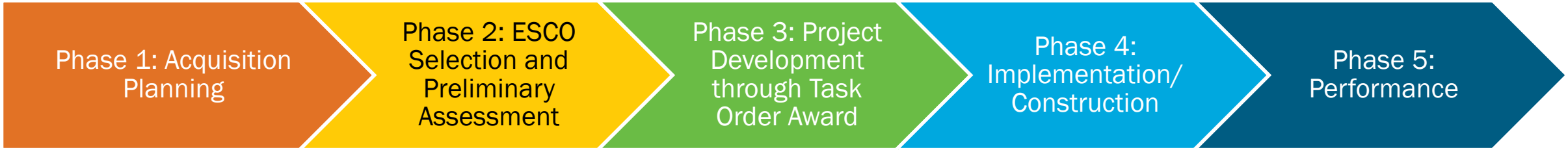
Learning Objectives

- Understand key components of the technical proposal
- Evaluate Measurement and Verification (M&V) plan components for each proposed Energy Conservation Measure (ECM)
- Analyze Risk Responsibility Performance Matrix (RRPM), ensuring the agency/site is clear on risks, roles and responsibilities assigned
- Apply available FEMP tools and resources in the review process

Setting the Stage



Reviewing the Technical Proposal

- A component of the Task Order (TO)
- Contracts can be up to 25-years in length

On-demand FEMP Training available on Whole Building Design Guide:

- Financing and Financial Review
- Pricing in Energy Savings Performance Contracts

Workshop Topics

- **Preparing for the review**
- **Technical proposal required content**
  - ECM descriptions
  - Baselines, projected savings, and utility rates
- **M&V plan components**
- **RRPM**
  - Risk categories
  - Roles and responsibilities
- **FEMP best practices, tools and resources**

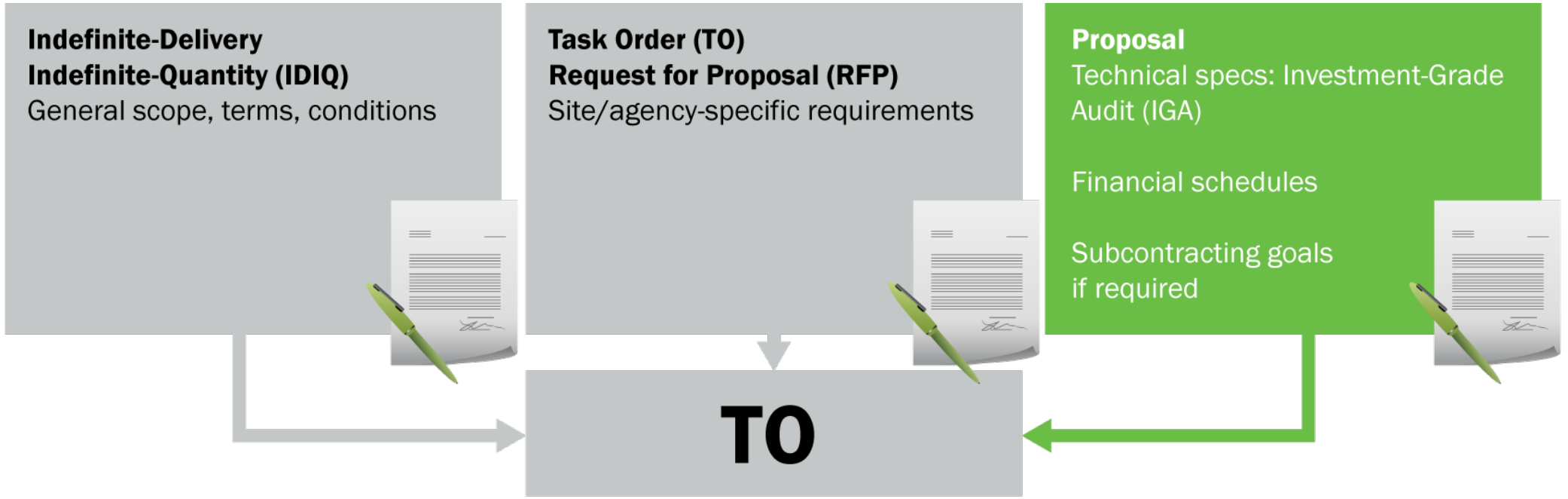
Training Icons

Online Resource

FEMP Best Practice

The Investment-Grade Audit (IGA) is the Technical Basis for the Proposal

- Establishes energy, water, and O&M baselines
- Determines ECM feasibility and estimated annual savings



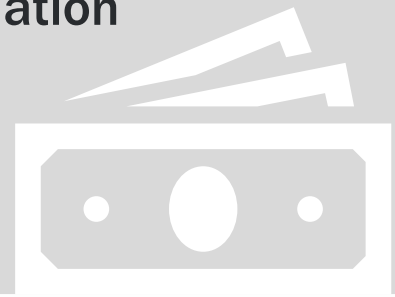
What's in the Proposal

Volume I: Technical Proposal

- Executive Summary/Project Overview
- ECM descriptions
- ECM performance measurement
- Project management plan

Volume II: Price Proposal

- TO financial schedules
- Financing summary
- Supporting cost information

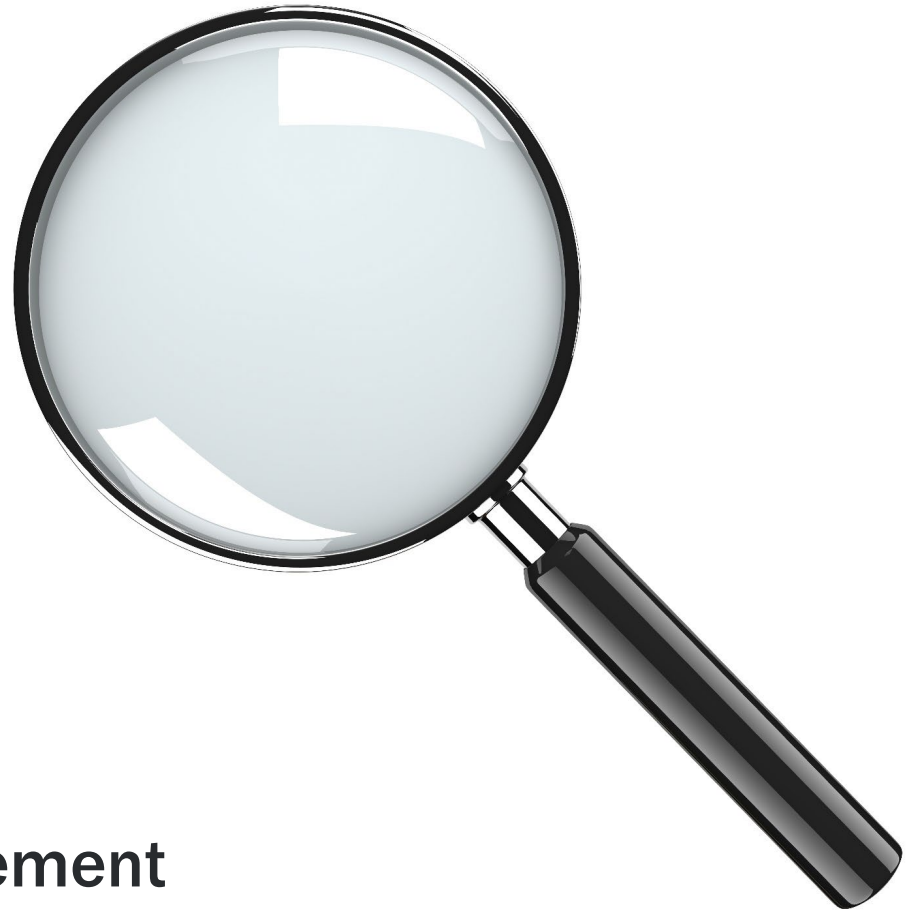


Typically presented as two separate documents, though some information applies to both.

Review of the Technical Proposal (Volume 1)

Proposal Contents:

- **Executive Summary**
- **ECM Descriptions and Scope**
- **ECM Performance Measurement**
  - Energy, water, energy-related savings
  - M&V plan
  - Commissioning plan
- **Project Management Plan**
- **RRPM**
- **Operations, Maintenance, Repair and Replacement**
- **Design and Construction Requirements**

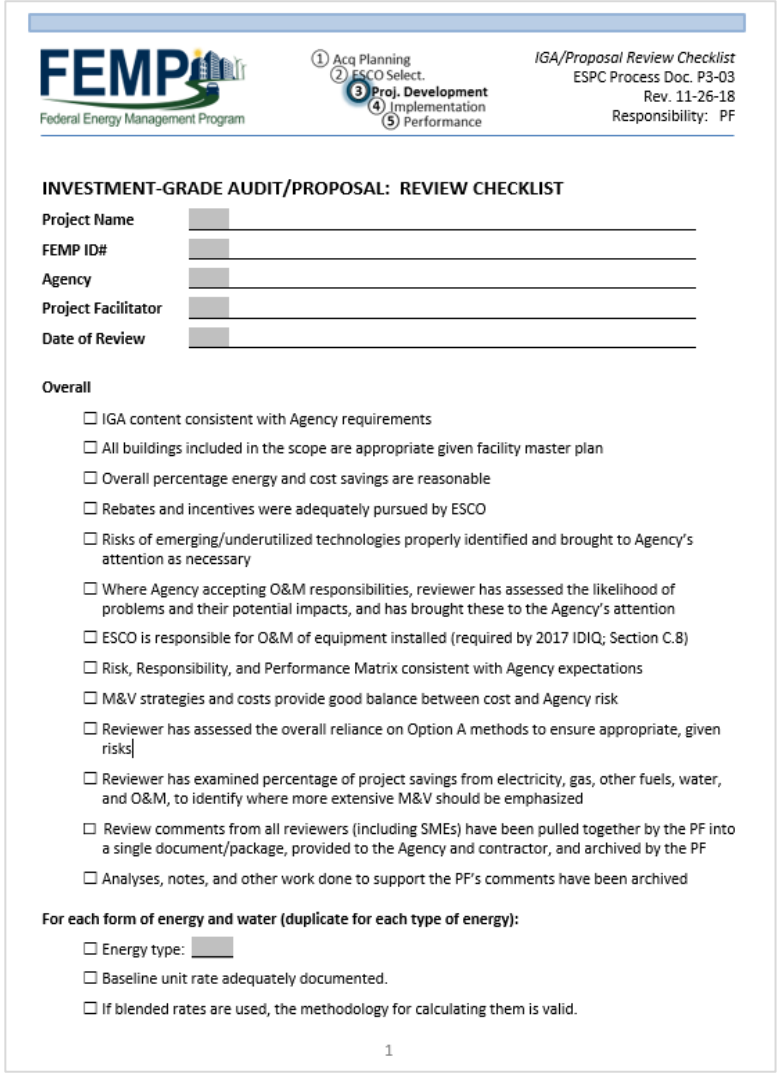


Recommended Agency Proposal Review

- **Agency review team**
  - Establishes process and schedule with team and Energy Service Company (ESCO)
    - And sticks to schedule – timely reviews are critical!
  - Assigns sections to relevant team subject matter experts (SMEs)
    - Technical staff, system operators, cybersecurity, site security, budget, contracting, etc.
  - Seeks Project Facilitator (PF) input and considers FEMP ESPC resources
- **Agency plans ahead to approval process and sets aside time needed**
  - Management, legal, other required review
  - Senior-level review (as required)

IGA/Proposal Review Checklist

- High-level & detail focused
- Checklist topics:
  - Overall project
  - Energy rates & escalation
  - ECMs (suitability, baselines, savings, costs, M&V, etc.)
  - TO schedules (consistent & traceable values)
- Incorporates:
  - ECM lessons learned (for energy generation, power purchase agreements, emerging technology ECMs)
  - Level of government witnessing by ECM



FEMP
Federal Energy Management Program

① Acq Planning
② ESCO Select.
③ Proj. Development
④ Implementation
⑤ Performance

IGA/Proposal Review Checklist
ESPC Process Doc. P3-03
Rev. 11-26-18
Responsibility: PF

INVESTMENT-GRADE AUDIT/PROPOSAL: REVIEW CHECKLIST

Project Name _____
FEMP ID# _____
Agency _____
Project Facilitator _____
Date of Review _____

Overall

☐ IGA content consistent with Agency requirements
☐ All buildings included in the scope are appropriate given facility master plan
☐ Overall percentage energy and cost savings are reasonable
☐ Rebates and incentives were adequately pursued by ESCO
☐ Risks of emerging/underutilized technologies properly identified and brought to Agency's attention as necessary
☐ Where Agency accepting O&M responsibilities, reviewer has assessed the likelihood of problems and their potential impacts, and has brought these to the Agency's attention
☐ ESCO is responsible for O&M of equipment installed (required by 2017 IDIQ; Section C.8)
☐ Risk, Responsibility, and Performance Matrix consistent with Agency expectations
☐ M&V strategies and costs provide good balance between cost and Agency risk
☐ Reviewer has assessed the overall reliance on Option A methods to ensure appropriate, given risks
☐ Reviewer has examined percentage of project savings from electricity, gas, other fuels, water, and O&M, to identify where more extensive M&V should be emphasized
☐ Review comments from all reviewers (including SMEs) have been pulled together by the PF into a single document/package, provided to the Agency and contractor, and archived by the PF
☐ Analyses, notes, and other work done to support the PF's comments have been archived

For each form of energy and water (duplicate for each type of energy):

☐ Energy type: ____
☐ Baseline unit rate adequately documented.
☐ If blended rates are used, the methodology for calculating them is valid.

1

Project Development Guide – Checklists for IGA/Proposal Review

Review ECM Descriptions

- **Complete and understandable ECM descriptions (per IDIQ H.5.2.2) will specify:**
  - Scope of work to be performed
    - Including *intent* of ECM(s)
  - Baseline, assumptions used
  - Affected location details
  - Potential interfaces with existing government equipment
  - Information on manufacturer, model, size; catalog “cut sheets”
  - Utility interruptions or physical changes to existing equipment/facilities required to implement ECMs

Review Baselines and Projected Savings

Establishing Baselines

- **Historical utility data**
  - Sufficient data to establish trend
  - Minimum 36-months data (more for water)
- **Sampling measurements**
  - Short-term, long-term
  - Reduced sampling errors (M&V Guidelines v4.0 §5.3.2)
- **Assumptions**
  - Fully specified
  - Reviewed/accepted by site
- **Operational Parameters**

System Performance Factors

- **Lighting levels**
  - Pre/post installation standards met
- **Setpoints**
  - Proposed changes reviewed/approved by site
  - Changes verified via software or space temperatures
- **Schedules**
  - Proposed changes reviewed/approved by site
  - Setbacks allow for warm-up?
- **Availability**

Energy and Cost Savings

- **The proposal shows for each ECM:**
  - Projected energy and energy cost savings
  - Projected energy-related cost savings
  - Detailed calculations and justification for all proposed savings

Review Carefully! These are the basis for the savings guarantee.

- **ESCOs (almost) never guarantee 100% of proposed savings**
  - Safeguard, risk management
  - Depends on complexity of ECMs, predictability of savings, interactive effects, M&V option, Operations and Maintenance (O&M)/ Repair and Replacement (R&R), other considerations

Average of 95% of proposed savings are guaranteed.

Utilities and Escalation Rates – Checklist

- **All energy types accounted for**
  - Electricity, natural gas, water, sewer, propane, etc.
- **Baseline utility rates properly documented**
  - Should use actual rather than blended rates
  - Seasonality , time of use, tiered usage, etc.
- **Escalation rates appropriate and documented**
  - Check eProject Builder (ePB) escalation rates schedule

For each form of energy and water (duplicate for each type of energy):

- ☐ Energy type: _____
- ☐ Baseline unit rate adequately documented.
- ☐ If blended rates are used, the methodology for calculating them is valid.

- ☐ Escalation rates adequately documented and consistent with FEMP recommendations (latest version of EERC tool utilized).

Best Practice: Using the EERC

- **NIST Energy Escalation Rate Calculator (EERC)**
  - Calculates average escalations given location and term of contract
  - Standard for setting escalation rates for federal performance contracts
  - Available online (https://pages.nist.gov/eerc/)

Best Practice: Utility and Escalation Rates

- **PDF/screenshot of EERC printout should be included in technical proposal**
- **Other escalation rates – justified and documented**
  - Water/wastewater
  - Other utilities
  - O&M
- **Confirm escalation rates are appropriately represented in ePB schedules – 'Annual Escalation Rates' tab**

Escalation Rate Guidance

Evaluating Engineering Calculations

- **Government analysis and review to ensure:**
  - Rationale/basis for savings is reasonable
  - Calculations based on sound engineering principles
  - Math is correct (e.g., spot-check spreadsheets)
- **Assumptions and inputs**
  - Should be documented, reviewed by agency, for each ECM
- **Spreadsheets and building energy simulations**
  - Acceptable way to document energy savings for complex ECMs
  - ESCO should provide electronic copies for agency review
- **Verify energy and cost savings in TO Schedule 4**

Agency can ask for additional data or information that supports analysis or assumptions.

FEMP ESPC team experts can help with review of advanced and resilience technologies. Contact your Federal Project Executive (FPE).

Task Order Schedule 4

- **Summarizes estimated year-1 savings for each ECM:**
  - Baseline energy and water usage and cost
  - By utility (gas, electric, fuel oil, etc.)
  - Energy savings, energy cost savings, and energy-related cost savings
- **Summarizes implementation costs for each ECM**
- **Provides simple payback (SPB) for each ECM**
  - Aggregate simple payback drives project feasibility
  - ESPCs need a balance of long- and short-payback ECMs
  - Short-payback ECMs finance the long payback ECMs
  - Without long-payback ECMs, project would end early; savings from short-payback ECMs would be returned to the Treasury
- **New ePB TO Schedule 4g – estimates GHG emission reductions by ECM**

Schedule 4 – First Year Estimated Cost Savings by ECM

SCHEDULE #4
FIRST YEAR ESTIMATED COST SAVINGS BY ENERGY CONSERVATION MEASURE

ECM			Baseline Energy and Non-energy Consumption										b1	b2	c1	c2	d1	d2	e1a	e2a	e1b	e2b	f = 0.003412*b1 +d1+e1a+e 1b	g = b2+c2+d2+ e2a+e2b	h	i	j	k	l = g+i+j+k	m	n = m/l
ECM Number	Short Description	First Year M&V Option*	Baseline electricity use	Baseline electricity demand	Baseline natural gas use	Baseline Use: Heating Oil	Baseline Use: Other	Baseline water use	Baseline energy and resource costs	Baseline O&M costs	Baseline other non-energy costs	Type of other non-energy costs	Electric energy savings	Electric energy savings	Electric demand savings	Electric demand savings	Natural gas savings	Natural gas savings	Other Savings Type 1: Heating Oil	Other Savings Type 1: Heating Oil	Other Savings Type 2: Other	Other Savings Type 2: Other	Total energy savings	Total energy cost savings	Water savings	Water savings	O&M cost savings	Other non-energy cost savings	Estimated annual cost savings	Implementation price	Simple Payback
			(kWh/yr)	(kW/mo)	(MMBtu/yr)	(MMBtu/yr)	(MMBtu/yr)	(kGal/yr)	($/yr)	($/yr)	($/yr)		(kWh/yr)	($/yr)	(kW/mo)	($/yr)	(MMBtu/yr)	($/yr)	(MMBtu/yr)	($/yr)	(MMBtu/yr)	($/yr)	(MMBtu/yr)	($/yr)	($/yr)		(Kgal/yr)	($/yr)	($/yr)	($/yr)	($/yr)	($)	(years)
	Project Development Price (PDP)-Technical Energy Audit and Project Proposal																													$250,000	
1A	Boilers, other	Option A			37,047	37,042			$1,074,248								(8,300)	-$49,800	9,100	$209,300			800	$159,500					$159,500	$1,875,000	11.76
3A	Controls	Option D	9,160,000						$732,800				1,000,000	$80,000			20,000	$120,000					23,412	$200,000			$25,000		$225,000	$3,150,000	14.00
5A	Lighting upgrades	Option A	15,356,000						$1,228,480				1,077,000	$86,160	3,000								3,675	$86,160			$40,000		$126,160	$2,100,000	16.65
6A	Upgrade building envelope	Option A	11,866,000	500	20,000	30,000			$1,763,370				25,000	$2,000	50	$1,800	710	$4,260	1,065	$24,495			1,860	$32,555					$32,555	$1,125,000	34.56
11A	Solar photovoltaic system	Option B							$0				557,000	$44,560									1,900	$44,560					$44,560	$1,500,000	33.66
13A	Water improvements	Option A						25,374	$253,740														-	$0	13,000	$130,000			$130,000	$1,500,000	11.54
																							-	$0					$0		
TOTALS:			36,382,000	500	57,047	67,042	0	25,374	$5,052,638	$0	$0		$2,659,000	$212,720	3,050	$1,800	12,410	$74,460	10,165	$233,795	0	$0	31,648	$522,775	13,000	$130,000	$65,000	$0	$717,775	$11,500,000	16.02

SCHEDULE #4
FIRST YEAR ESTIMATED COST SAVINGS BY ENERGY CONSERVATION MEASURE

ECM		ECM				b1	b2	c1	c2	d1	ECM			h	i	j	k	l = g+i+j+k	m	n = m/l
ECM Number	Short Description	ECM Number	Short Description	Location	First Year M&V Option*	Electric energy savings	Electric energy savings	Electric demand savings	Electric demand savings	Natural ga savings	ECM Number	Short Description	Location	First Year M&V Option*	Water savings	Water savings	O&M cost savings	Other non-energy cost savings	Estimated annual cost savings	Impleme ntation price	Simple Payback
						(kWh/yr)	($/yr)	(kW/mo)	($/yr)	(MMBtu/y					(Kgal/yr)	($/yr)	($/yr)	($/yr)	($/yr)	($)	(years)
	Project Development Price (PDP)-Technical Energy Audit and Project Proposal		Project Development Price (PDP)-Technical Energy Audit and Project Proposal									Project Development Price (PDP)-Technical Energy Audit and Project Proposal								$0	
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O&M Savings

- **Defined: Reduction in O&M costs resulting from installation of new ECMs**
  - Savings for both labor and materials are acceptable
  - Requires actual reduction in spending (IDIQ Attach. J-2)
- **Verify that ESCO estimates comply with FEMP and agency guidance**
  - Documented O&M savings by ECM
  - M&V plan will include method to verify ongoing O&M savings
- **Ensure existing O&M contracts can be modified before committing related savings to project**

Practical Guide to Savings and Payments in Federal ESPC Task Orders

How to Determine and Verify O&M Savings in ESPCs

Construction Schedule

- **Scheduling methods**
  - FEMP recommends using the critical path method (CPM) for scheduling
  - Define required schedule updates and timelines
- **Reasonableness**
  - Realistic for number of sites/facilities
  - Understand which task duration estimation methods were used
    - Analogous, parametric, three-point estimating, etc.
  - Ensure all agency and site-specific requirements are included
- **Seasonality of ECMs**
  - Consider timelines for decommissioning, removal, installation, and commissioning of HVAC and mechanical equipment

Construction Schedule (cont'd)

- **Schedule should include coordination/review tasks beyond project team**
  - Building tenant and site security coordination
  - Cybersecurity requirements to achieve Authority to Operate (ATO)
    - Ensure compliance with NIST Cybersecurity Framework (CSF)
  - Utility interconnections may be required for distributed energy projects
    - Clear description of utility's interconnection and approval process
  - Permitting and other regulatory requirements
    - Description of process, responsible parties, approvals and schedule
- **Responsible parties should be identified for all tasks**
  - Very important for tasks outside agency team or ESCO responsibility
  - Identify key personnel, establish communication early

Construction Period Savings

- **Result from ECMs completed prior to full construction completion**
  - Reduces total amount financed
  - Varies by ECM with payment made after full project acceptance
- **Included in price proposal, and must reflect construction schedule in technical proposal**
- **Considerations:**
  - ECM types and seasonality (e.g., ECM must be operating to produce savings)
  - Commissioning must be completed
  - Post-installation M&V must verify performance and savings

Implementation Period Risk Mitigation

Ensure work schedule is coordinated amongst all parties involved – agency, utility, ESCO, subcontractors, building tenants, site security personnel, etc.

Ensure project acceptance criteria and process is clearly defined

Deliverables required prior to project acceptance may include:

- As-built drawings
- Full installed equipment lists
  - Some agencies may require this in a specific format
- Spare parts with inventory
- Warranty letters
- Commissioning and post installation M&V reports (when applicable)
- Other agency/site specific requirements

IDIQ Attachment J-4 Part 2: Post-award Deliverables Sample

O&M Plan Review

- **O&M plan presented in Project Management Plan includes proposed:**
  - Approach to ECM O&M, repair and replacement requirements
  - ECM-specific preventive maintenance requirements
  - Responsibilities for performing O&M/R&R for contractor-installed equipment by ECM
  - Reporting requirements of agency and contractor
  - O&M training for each ECM
- **Ensure enough detail to understand requirements and responsibilities**
- **Review RRPM for summary of responsibilities, performance of tasks, and associated risks**

If Agency Performs O&M Tasks

- **Be aware of site O&M/R&R roles per the TO**
  - Ensure that O&M and R&R roles are understood for each ECM
  - Comply with ESCO's O&M manuals and TO instructions
  - Maintain O&M and R&R records per TO requirements
  - Ensure that personnel receive training and have access to O&M manual
  - Refer to O&M guidance on FEMP web site
- **Only accept responsibilities that you can effectively handle!**

M&V Plan Requirements

- **Project-specific M&V plan required for each ECM, and defines requirements for future M&V activities**
- **Plan includes:**
  - Overview of ECM and verification activities
  - Adequate and accurate baseline conditions
  - Details for measurements, data analysis, algorithms, assumptions
  - Defined performance period verification activities
  - Witnessing of M&V activities by agency
  - Schedule for M&V activities and reports
  - O&M reporting requirements by customer and ESCO
  - Details of how savings will be calculated

M&V Plan Review – Agency Approach

- **Level of effort should agree with proposed M&V costs in price proposal**
- **Focus review on ECMs that are most complex or provide most savings**
- **Engage SMEs for specific ECMs as needed**
- **Review RRPM to ensure M&V strategies reflect agreed-upon risk allocation**
- **Review energy, water, and O&M baselines**
  - Measurements, assumptions, and verification should have occurred and been agreed upon and documented during IGA
  - Accuracy is critical – *once ECMs are installed, baseline conditions cannot be measured!*

M&V Plan Review – Proposed Activities

- **Post-Installation and Post-Acceptance measurements and activities**
  - Ensure measurement of key performance indicators (KPI)
    - KPIs should be appropriate for respective ECMs
    - Results should support performance guarantees
  - Measurement frequency and duration should be appropriate for ECM size/complexity and variables affecting energy use
  - Sample size (confidence, precision) should be appropriate for level of certainty needed
  - Witnessing plan should accommodate scheduling agency staff
    - Communicate schedule with enough notice to allow agency witnessing

M&V Plan Review – O&M

- **Plan should include ESCO annual review of O&M activities**
  - Includes activities performed by ESCO and agency
  - Demonstrates potential agency impacts on savings and recommended solutions
- **Review plan for verifying O&M savings**
  - Should be realistic and verifiable
  - Should be supported by ECM O&M plan

M&V Plan Review Guidance

- **Use checklists in guidance to ensure**
  - Proposed M&V plan contains all details to enable thorough M&V review
  - Each strategy reflects balance between M&V cost and ECM savings risk
  - Document your evaluation and findings
- **Helps you "follow the money" – Compare savings streams (electric, gas, water, O&M, etc.) to M&V strategies**

ECM	b1. Electric energy savings (kWh/yr)	b2. Electric energy savings ($/yr)	c1. Electric demand savings (kW/mo)	c2. Electric demand savings ($/yr)	d1. Natural gas savings (MMBtu/yr)	d2. Natural gas savings ($/yr)	Other Energy-Related and O&M Cost Savings ($/yr)	Total energy cost savings ($/yr)
1	8,097,129	$707,270					$65,735	$773,005
2	8,661,753	$756,589			35,393	$163,661	$84,614	$1,004,864
3	808,839	$44,661	12,194	$165,000				$209,661
4	22,376,743	$1,245,489	40,173	$517,746				$1,763,235
5	5,547,679	$309,919	66,188	$833,132	(55,571)	-$256,964		$886,086
6	1,392,234	$121,609						$121,609
7	597,866	$52,223						$52,223
Total	47,482,243	$3,237,760	118,555	$1,515,878	-20,178	$-93,303	$150,349	$4,810,683

Reviewing M&V Plan – Key Questions

- What would have to occur for the ESCO to not meet the guarantee?
- If an ECM does not perform, what happens, and how will performance be restored?
- What is the expected life of the ECM? How is R&R to be handled?
- Does the plan define the agency's role in witnessing M&V activities?
- Do proposed O&M responsibilities support long-term ECM performance and savings? How will O&M deficiencies be addressed?

Risk, Responsibility & Performance Matrix (RRPM)

- **RRPM is a summary of risk/responsibility allocation to inform decision making**
  - Covers main areas of risk and responsibility for both parties
    - Financial, operational, and performance
- **Categorizes risks, describes responsibilities**
  - Requires ESCO to clarify each risk item and provide a proposed approach for how risks are addressed and/or responsibilities assigned
  - Technical proposal is contractor-proposed approach
  - Agency needs to review and document agreement on responsibilities
- **It is all in the details (e.g., M&V plan, O&M plan, savings calculations, escalation rates, TORFP, TO schedules, etc.)**
- **RRPM located in technical proposal, and references price proposal content**

Risk Categories in the RRPM

Financial	Operational	Performance
Interest rates	Operating Hours	Equipment performance
Energy/water prices	Loads	Operations
Construction costs	Weather	Preventive maintenance
M&V confidence	User Participation	Equipment repair & replacement
Energy-/water-related cost savings		
Delays		
Major changes in facility		
Agency and ESCO	**Agency**	**ESCO**

IDIQ Attachment J-7: ESPC Risk, Responsibility and Performance Matrix

Evaluating Responsibility Allocation

- Responsibilities must be clearly documented, understandable, and acceptable…for both parties
- Evaluate responsibilities based on ECM complexity, level of savings, and site capabilities
- Ensure RRPM is complete – first reference for issues during performance period
- Confirm responsibilities in RRPM are consistent with details in proposal
- ESCO responsibilities should match proposed level of effort and cost
- Make sure language from PA is updated and finalized in technical proposal

Only accept responsibilities that you can effectively handle!

RRPM: 1. Financial

Responsibility / Description	Technical Proposal	Price Proposal
a. Interest Rates:	N/A	• eProject Builder "Summary Schedule" tab • Described in the financing write-up • Selection Memorandum (interest rate premium and index rate from selected financier)
b. Energy/Water Prices:	• Screenshots of EERC calculator, including key inputs • Utility summary, rate analysis	• eProject Builder "Annual Escalation Rates" tab for each utility, O&M and other non-Energy Savings
c. Construction/Project Implementation Costs:	Design standards typically referenced in: • ECM descriptions • RRPM Design approval process covered in: • Project Management Plan	Costs are included in Price Proposal: • eProject Builder on Schedule 2a (Implementation Price by ECM) by ECM • Supporting information provided in Price Proposal

RRPM: 1. Financial

Responsibility / Description	Technical Proposal	Price Proposal
d. Measurement and Verification (M&V) Confidence:	• M&V Plan detailed in Technical Proposal, including M&V Option and baseline, post-installation, and performance period activities by ECM	• M&V Costs presented in Price Proposal in Schedule 2b (Project Implementation Pricing) and Schedule 3 (Performance Period Cashflow)
e. Energy (or Water) Related Cost Savings:	• M&V Plan for specific ECMs under "Operations and Maintenance Cost Savings" • Details source of energy-related cost savings by ECM	Savings in eProject Builder: • Schedule 1 (Annual Cost Savings & Payments): one-time • Schedule 4 (Cost Savings by ECM): recurring Supporting information typically provided in Price Proposal
f. Delays:	• Project schedule • Project management plan	• Construction duration in eProject Builder (Summary Schedule) • Construction period savings (if applicable)
g. Major changes in facility:	• ECM write-ups and baseline description capture current operation	• Schedule 5 (Cancellation Ceiling) in eProject Builder

RRPM: 2. Operational

Responsibility / Description	Technical Proposal	Price Proposal
a. Operating Hours:	• M&V Plan: determination of baseline and proposed hours by ECM (key parameters) • ECM descriptions: existing conditions, energy baseline	N/A
b. Load:	• M&V Plan: determination of baseline and proposed load by ECM (key parameters) • ECM descriptions: existing conditions, energy baseline	N/A
c. Weather:	• M&V Plan: energy baseline development by ECM (key parameters) • ECM descriptions: energy baseline; energy use and savings	N/A
d. User participation:	• M&V Plan: key parameters by ECM • O&M Plan: roles and responsibilities by ECM • ECM descriptions: agency support required	N/A

RRPM 3. Performance

Responsibility / Description	Technical Proposal	Price Proposal
a. Equipment Performance:	• ECM descriptions may indicate equipment selected and proposed performance/ efficiency • M&V, Commissioning Plan: details how performance will be verified (post-installation, performance period)	N/A
b. Operations:	• O&M/R&R Section details responsibilities by ECM, including training • Definitive language to minimize ambiguity for risk/responsibility	• If ESCO taking on Operations risk, may have costs in eProject Builder Schedule 3 (Performance Period Cashflow)
c. Preventive Maintenance:	• RRPM details should match O&M addressed in Technical Proposal (ECM description, O&M section) • Definitive language to minimize ambiguity for risk/responsibility	• If ESCO taking on Maintenance risk, may have costs in eProject Builder Schedule 3 (Performance Period Cashflow)
d. Equipment Repair and Replacement:	• RRPM details should match R&R addressed in Technical Proposal (ECM description, R&R section) • Definitive language to minimize ambiguity for risk/responsibility	• If ESCO taking on R&R risk, may have costs in eProject Builder Schedule 3 (Performance Period Ca shflow)

RRPM Best Practices

- **Review RRPM and details in proposal for completeness and consistency**
  - Any inconsistency should be addressed prior to TO award
- **Ensure risks addressed and responsibilities assigned are clear**
  - Discuss with ESCO and revise RRPM if needed
- **Utilize PF to identify risks, concerns, and solutions**

Recognizing and Assigning ESPC Risks and Responsibilities using the Risk, Responsibility and Performance Matrix

Completing your Review of the Technical Proposal

- Complete the checklist
- Review project facilitator comments
- Resolve comments and questions
- Proposal revisions as necessary
- Contract award

Before Task Order Award

- Confirm proposed energy consumption baselines, utility rates and fixed parameters for calculating energy savings are sound
- All incentives and rebates identified; responsibility for paperwork, timing is determined
- Guaranteed savings from ECMs are reasonable
- RRPM consistent with scope and pricing in proposal
- All stakeholders understand the RRPM and details of any assigned risks and/or responsibilities of the agency post-acceptance
  - Agency has the resources or will commit the resources necessary to carry out responsibilities

Technical Proposal Review – Strategies for Success

- **Hold in-person conference after IGA**
  - Review findings, discuss potential challenges
- **Establish concrete deadlines for agency review and ESCO response**
- **Develop review plan and set aside time**
- **After review, hold meeting to resolve agency comments**
- **Document all agency comments and ESCO responses as attachment to TO**
- **Use FEMP tools and templates**
  - IGA review checklist
  - Contract management plan

Use your FEMP and PF resources

Guidance References

- **IDIQ: 2017 DOE IDIQ ESPC Generic Contract**
- **M&V References:**
  - *M&V Guidelines: M&V for Performance-Based Contracts (Version 4.0)*
  - *Guide to Government Witnessing and Review of M&V Activities*
  - *Reviewing M&V Plans for Federal ESPC Projects*
- **O&M Savings:**
  - *How to Determine and Verify Operations and Maintenance Savings in Energy Savings Performance Contracts*
  - *Practical Guide to Savings and Payments in FEMP ESPC Task Orders*
- **Annual M&V Report Contents:**
  - *DOE IDIQ Annual Report Outline (IDIQ J-10)*

FEMP's ESPC Team — Dedicated to Helping Agencies Succeed with ESPC

- **FEMP HQ**
  - Program and policy support
- **FEMP Federal Project Executives (FPEs)**
  - Your first point of contact
  - Coordinates FEMP ESPC assistance for agencies
- **FEMP Project Facilitators (PFs)**
  - Hands-on project support
- **DOE Golden Field Office — FEMP@ee.doe.gov**
  - DOE-FEMP ESPC IDIQ contract administration
- **National Lab subject matter experts (SMEs)**
- **Legal counsel**

Open Q&A

FEMP Resources

FEMP Resources

Finding ESPC Resources on FEMP's Website

FEMP Web Page

FEMP ESPC Page

- About ESPCs
- ESPC ENABLE
- ESPC Quality Assurance
- ESPC ESAs
- ESPC Project Summaries
- ESPC Resources
- Contacts
- Case Studies
- Start a Project
- ESCOs
- Awarded Projects
- Contracting Officers
- Lawyers
- Key Resources

ESPC Resources

Guidance, Process, Contract Tools and Templates

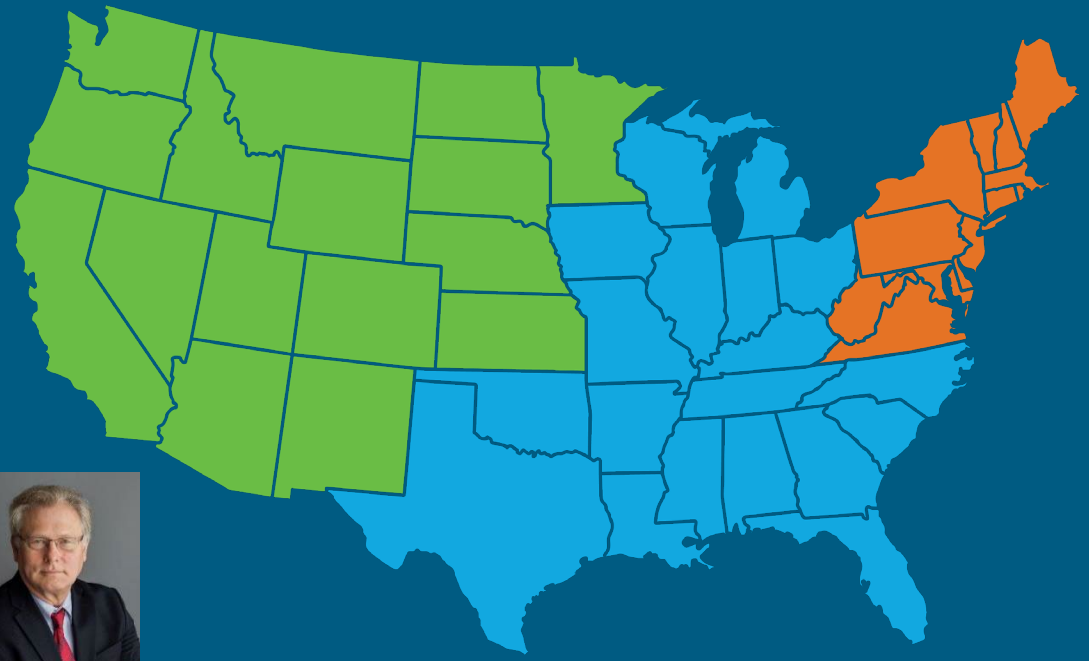
- Essential Education
- Phases 1 – 5
- Measurement and Verification

FEMP ESPC Training on Whole Building Design Guide

- **Available FEMP training courses include:**
  - ESPC Comprehensive Training (Phases 1&2; Phase 3; Phases 4&5)
  - Energy Savings Performance Contracts: Five Phases to Success
  - Financing and Financial Proposal Review (coming soon to on-demand)
  - Pricing in Energy Savings Performance Contracts (ESPC)
  - Using Task Order (TO) Schedules in eProject Builder (ePB)
  - Long-term Management of Measurement and Verification (M&V) in Performance Contracts
  - Advanced Measurement & Verification for ESPC
  - ESPC ESA Webinar Series: ESPC IDIQ Contract Vehicle Overview
  - Decarbonization Considerations: Performance Contracting

First Point of Contact: Your Federal Project Executive (FPE)

- Help with all performance contracting: ESPC, ENABLE, and UESCs
- Connect you with lab, Subject Matter Experts (SME), resources



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Click here for more information about how FPEs can help you.

What are IACET-Certified CEUs?

What is a CEU?

According to the International Association for Continuing Education and Training (IACET), a CEU is a unit of credit equal to 10 hours of participation (contact hours) in an accredited program designed for professionals with certificates or licenses to practice various professions (e.g., engineers, lawyers, accountants, educators, nurses, architects, mental health professionals, and social workers). The CEU provides a standard unit of measurement for continuing education and training, quantifies continuing education and training activities, and accommodates for the diversity of providers, activities, and purposes in adult education.

What is the IACET?

The IACET offers the most industry-wide accreditation of official continuing education units (CEU). IACET worked with the U.S. Department of Education to create and define the CEU in 1970. The Federal Energy Management Program (FEMP) is an authorized provider of CEUs under the ANSI/IACET 1-2018 Standard. IACET Course Accreditation is an industry-recognized training quality control system; FEMP is utilizing this system to ensure our trainings meet the highest standards for professional development.

How do I earn CEUs for a training I've taken?

When you take a FEMP IACET-certified training, you will be provided with a link to the assessment and evaluation for the training completed. To earn CEUs, attendees must score 80% or higher on the assessment and complete the course evaluation.

To Receive IACET-Certified CEUs:

- To Receive IACET-Certified CEUs:
- Attend the training in full – no exceptions
- Within six weeks of the training:
  - Complete the assessment (a minimum score of 80% is required)
  - Complete an evaluation of the training

Access the Training Assessment and Evaluation

Reviewing Your Technical Proposal | WBDG - Whole Building Design Guide

For logistical questions related to the assessment or evaluation, email FEMP Training at femp_training@ee.doe.gov.

Thank you for attending!

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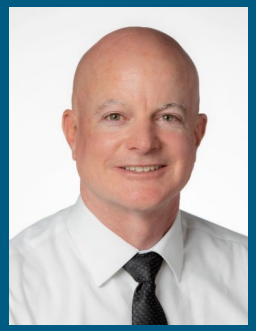

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