

# Guidance and Recommendations for Streamlining Reporting for Federal Energy and Water Efficiency Projects

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## Preface

This guidance was prepared by Lawrence Berkeley National Laboratory for the U.S. Department of Energy/Office of Energy Efficiency and Renewable Energy/Federal Energy Management Program.

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## List of abbreviations and acronyms

CTS	EISA Compliance Tracking System
DOE	Department of Energy
ePB	eProject Builder
EISA	Energy Independence and Security Act of 2007
ESPC	Energy savings performance contract
FEMP	Federal Energy Management Program
IDIQ	Indefinite-delivery, indefinite-quantity
LBNL	Lawrence Berkeley National Laboratory
M&V	Measurement and verification
UESC	Utility energy service contract

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# Guidance and Recommendations for Streamlining Reporting for Federal Energy and Water Efficiency Projects

## 1 Introduction

Federal agencies are required to report on their progress in meeting various energy and water management requirements (42 U.S.C. § 17143, 42 USC 8253(f), 42 U.S.C. § 8258(a), 42 U.S.C. § 8287b). These reporting requirements encompass energy and water projects at federal facilities, including projects that are alternatively financed, e.g., conducted through energy savings performance contracts (ESPCs) or utility energy service contracts (UESCs). The purpose of this guidance is to provide recommendations to streamline federal agency reporting. The guidance recommends the use of eProject Builder (ePB), a project development and archiving tool for energy projects. ePB carries additional value in its simplification of federal agency reporting by dovetailing with the Federal Energy Management Program's (FEMP's) EISA 432 Compliance Tracking System (CTS), as described more below.

## 2 Overview of Reporting Requirements

The following statutory provisions establish required federal agency energy project reporting (see FEMP's [Performance Tracking and Reporting site](#) describing each requirement):

- 42 U.S.C. § 8253, Energy Management Requirements, and 42 U.S.C. § 8258, Reports
  - Annual Investment Report: Each year, federal agencies report on *aggregate* efficiency project investment funded through direct obligations, ESPCs, and UESCs. This includes the number of project awards under each funding type, estimated annual energy savings, and financing costs where appropriate. (See [Federal Facility Reporting Requirements and Performance Data](#).)
  - Initiated Projects Report and Project Follow-up Report: On an ongoing basis, federal agencies report project-level information on *individual* projects undertaken in facilities covered under the requirements of 42 U.S.C. § 8253(f) established in Section 432 of the Energy Independence and Security Act of 2007 (EISA 432). Federal agencies report awards of initiated projects that are funded with direct obligations or alternatively financed through ESPCs or UESCs, including their estimated energy, water, and cost savings, in the web-based CTS, which was established by DOE as directed by EISA. There is also a requirement to report on measured and verified annual savings from these initiated projects in covered facilities to ensure persistence of savings. (See [EISA Federal Facility Management and Benchmarking Reporting Requirements](#).)
- 42 U.S.C. § 8287b, Reports
  - Requires federal agency reporting periodically to DOE “full and complete information” regarding ESPC activities.

This document provides the guidance for federal agencies to comply with these aforementioned energy project reporting requirements.

### 3 Tool to Streamline Reporting: eProject Builder

eProject Builder (ePB) is a web-based energy project tracking and archiving system developed and maintained by Lawrence Berkeley National Laboratory (LBNL) that can assist federal agencies in their energy project reporting. FEMP recommends using ePB for development and monitoring of all major federal agency energy projects, as well as for streamlining project reporting pursuant to 42 U.S.C. §§ 8253(f), 8258(a), and 8287b. Using ePB can help federal agencies avoid duplicative or otherwise unnecessarily burdensome efforts by capturing information for the life of each project in one place. Specifically, ePB captures all of the necessary data fields for 42 U.S.C. § 8253(f) and 42 U.S.C. 8258(a) reporting requirements, as well as for ESPC-related reporting. These ePB fields (generally found in project proposals) are identical to the fields required for the CTS (Table 1):

**Table 1. Project proposal fields common to ePB and CTS.**

Agency name (cabinet-level)
Project name
Project ID
Date of project contract signing
Project acceptance date
Total project implementation cost (exc. financing)
Total performance period expenses
Total project cost (inc. financing)
Total project implementation cost (exc. financing)
Total project cost (inc. financing)
Contract term (years)
Annual estimated energy savings (million Btu)
Estimated annual savings - electricity use (kilowatt-hours)
Estimated annual savings - natural gas (million Btu)
Estimated annual savings - other energy (million Btu)
Estimated annual savings - water use (thousand gallons)
ECM - technology category

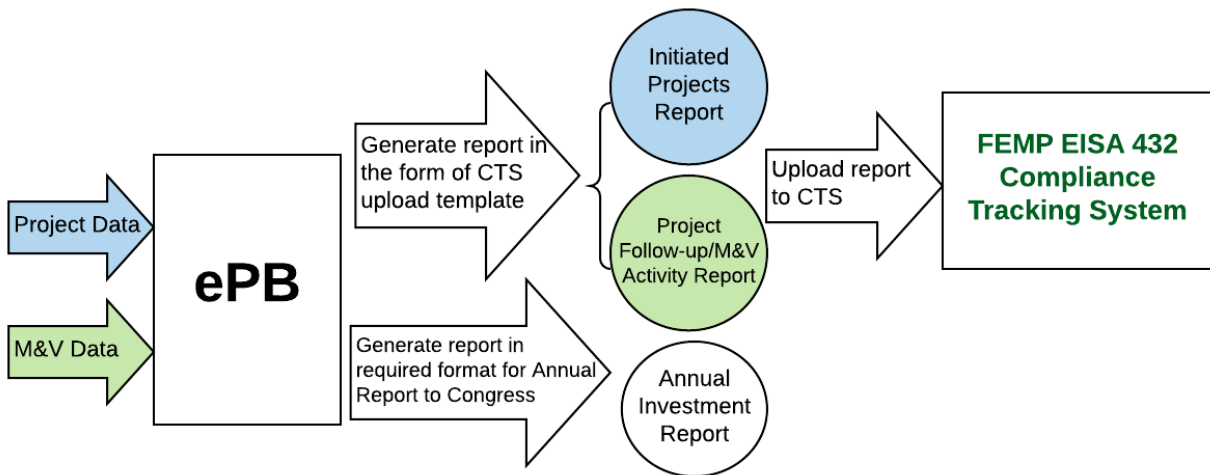
Table 2 lists some of the key measurement and verification (M&V) data fields collected in ePB and CTS, i.e., information that is collected once projects are in their performance period.

**Table 2. M&V fields common to ePB and CTS.**

Project acceptance date
Award date
M&V report date
M&V option
M&V report approval date
M&V report reviewed date
Verified annual savings - electricity use (kilowatt-hours)
Verified annual savings - natural gas (million Btu)
Verified annual savings - other energy (million Btu)
Verified annual savings - water use (thousand gallons)

ePB was designed to be compatible with the terminology and conventions used in the documentation of federal energy projects. ePB is already widely used to implement and track ESPC projects, significantly reducing data input and project tracking burdens on federal agencies. For example, ESPC projects using DOE’s third-generation indefinite-delivery, indefinite-quantity (IDIQ) contract (eff. 4/2017) are currently required to use ePB for project development. These contracts place the responsibility on ESCOs to populate ePB. Consequently, the reporting burden on federal agencies associated with these ESPCs is significantly reduced and federal agency personnel can access the necessary reporting fields in a CTS-importable format. In addition, ePB is compatible with UESCs and projects that are not financed and funded from direct obligations.

Moreover, ePB is currently being enhanced to seamlessly upload the desired data elements from ePB into CTS (see Figure 1, below).



**Figure 1. Planned data flow from ePB to CTS.**

The Initiated Projects Report is currently available in a CTS-importable format and the Follow-up/M&V Activity Report and Annual Investment Report are currently under development in ePB.



## 4 Project-Specific Reporting Requirements

### 4.1 ESPCs

Federal agencies are required by 42 U.S.C. § 8287b to periodically report to DOE full and complete information regarding ESPC activities. This section sets forth the data that federal agencies should include in their annual report on ESPC activities for both initial ESPC project award and annual ESPC M&V data reporting to meet the 42 U.S.C. § 8287b reporting requirement. The same reports can also be used for federal agency CTS reporting under 42 U.S.C. § 8253(f) for initiated projects undertaken at EISA-covered facilities, as is discussed below.

Using ePB to implement and track ESPC projects can significantly reduce federal agency data input and project tracking burdens. ESPC project reporting burdens may also be reduced because Federal agencies have the ability to allow FEMP to directly access project data in ePB. For federal agencies using a DOE IDIQ contract, no separate ESPC reporting is necessary for 42 U.S.C. § 8287b, because DOE's third-generation ESPC IDIQ contracts require use of ePB for project development and management and FEMP can directly access the necessary reporting data for these projects in ePB.<sup>1</sup> For ESPC projects that do not use a DOE IDIQ contract, Appendix B provides additional information on possible ePB requirements to consider for inclusion in an ESPC. To the extent possible, FEMP recommends that federal agencies include in non-DOE IDIQ ESPCs a requirement directing ESCOs to enter project data into ePB. Federal agencies may opt not to use ePB to report ESPC data, in which case this guidance provides data files (derived from ePB) that set forth the data points that should be included in a federal agency's annual report to DOE on its activities under 42 U.S.C. 8287, *et seq.*

ESPC data entered in ePB also allow federal agencies to more efficiently meet their ongoing reporting requirements for 42 U.S.C. § 8253, Energy Management Requirements, and 42 U.S.C. § 8258, Reports. As outlined in Section 3, ePB allows federal agencies to streamline ongoing CTS reporting under 42 U.S.C. § 8253(f) for initiated projects undertaken at EISA-covered facilities. ePB produces input files for upload to CTS (see ePB for more details), which federal agencies can utilize to streamline reporting, using the same data in ePB for CTS reporting. The Annual Investment Report and Project-Follow-up report data streamlining capabilities are being developed as described in Section 3.

### 42 U.S.C. § 8287b Reporting

#### *Reporting Frequency:*

Reporting on the prior calendar year's project awards and M&V reporting for projects in their performance periods should be submitted not later than January 31st.

#### *Data to be reported:*

ESPC awarded project data, and post-installation and annual M&V data are to be reported. The data points to be reported for awarded projects can be found in the *ePB Data Template User Guide*. Appendix C of this guide includes in template format the ePB data points, which are also accessible in electronic format online. If an ESPC project will be tracked and managed in ePB, a federal agency or its contractor/ESCO can provide the New Project Data and Annual M&V Data below, which can be populated in ePB (Option 1). Federal agencies may also choose to report data directly to DOE (Option 2).

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<sup>1</sup> FEMP also has access via ePB to the necessary data for any DOE ESPC IDIQ task orders that precede the third-generation IDIQ.

New Project Data: Federal agencies may use one of the following templates to report ESPC awarded project data:

- a. **Calculating Template.** This template includes standardized amortization calculations for interest and principal payments. FEMP recommends using this template as it employs standardized calculations to determine annual payments.
- b. **Non-calculating Template.** This template overrides the Calculating Template calculations. This template cannot be used to calculate project cash flow and the output schedules. FEMP only recommends using this template where the specific situation warrants use of different calculations, for example where energy savings decrease over time.

Annual M&V Data: The data fields necessary for reporting post-installation and annual M&V results are listed in the appendix to the *User Guide for eProject Builder M&V Module*.

*Method of reporting:*

The federal agency has two options for reporting the data to DOE if the awarded task order was not issued under a DOE ESPC IDIQ contract. Each is outlined below.

Option 1:

Federal agencies may use eProject Builder (ePB) directly for their initial ESPC project award, post-installation and annual ESPC M&V reporting. Federal agencies may share ePB data for each project with DOE through a “Project Viewer” designation. A Project Viewer does not have any ability to change the data but has full access to see a given project. Projects may be shared with DOE by designating the following email address as a Project Viewer<sup>2</sup>: [FEMP\\_ESPC\\_Reporting@ee.doe.gov](mailto:FEMP_ESPC_Reporting@ee.doe.gov)

Note: Using ePB is the most efficient way to track and share data, allowing federal agencies to use the powerful features of ePB to analyze their own data. ePB is designed to allow the contractor/ESCO to enter the data such that the federal agency only verifies accuracy before accepting the data.

Option 2:

Federal agencies that choose not to use ePB may share each project’s initial award and post-installation and annual M&V data with DOE by e-mailing the New Project Data and Annual M&V Data in electronic format to DOE at [FEMP\\_ESPC\\_Reporting@ee.doe.gov](mailto:FEMP_ESPC_Reporting@ee.doe.gov).

## 4.2 UESCs

Reporting for UESCs is required under 42 USC 8253(f) and 42 USC 8258(a) as described in Section 2. FEMP recommends the use of ePB for assembling project data elements and using the EISA 432 CTS reporting functions to streamline reporting. CTS accepts the required data elements for UESC projects from the ePB export to populate the “Initiated Projects” report in CTS. (See ePB web link for more details on use).

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<sup>2</sup> Viewer of an ePB project data can be found on page 5 of this link:  
[https://eprojectbuilder.lbl.gov/assets/help/eProject\\_Builder-Getting\\_Started\\_Guide.pdf](https://eprojectbuilder.lbl.gov/assets/help/eProject_Builder-Getting_Started_Guide.pdf)

The Annual Investment Report and Project-Follow-up report data streamlining capabilities are being developed as described in Section 3.

### 4.3 Direct-funded Projects

Reporting for projects funded with direct obligations is required under 42 USC 8253(f) and 42 USC 8258(a) as described in Section 2. FEMP recommends the use of ePB for assembling project data elements and using the EISA 432 CTS reporting functions to streamline reporting. CTS accepts the required data elements for direct-funded projects from the ePB export to populate the “Initiated Projects” report in CTS. (See ePB web link for more details on use).

The Annual Investment Report and Project-Follow-up report data streamlining capabilities are being developed as described in Section 3.

## 5 Conclusion

Federal agencies bear a significant burden for reporting their energy and water performance, much of which is focused on the projects they pursue to conserve resources and implement renewable energy at their sites. ePB is a valuable tool for developing and archiving projects, including their performance over time. Leveraging ePB to fulfill federal agency reporting requirements can alleviate some of this reporting burden. Additionally, ePB has developed tools and mechanisms to report these data in a simplified manner that dovetails with federal agencies’ CTS and other reporting requirements.

## Appendix A: EISA 432 CTS Implemented Project Data Fields

### Implemented Project – Data Fields

Field Name	Description	Data Type/ Validation	Required/ Optional
<b>Project Name</b>	The implemented project name	Text: (100 char max)	Required
<b>Agency Designated Project ID</b>	Internal agency defined project identifier. This identifier is used to link follow-up activity to existing projects in CTS during batch uploads. It must be unique across the sub-agency.	Text: (50 char max)	Required
<b>Project Initiation Date</b>	Date of contract award	Date field(s)	Required
<b>Project Implementation Date</b>	Date when majority of the project was completed and implemented. (substantial completion)	Date field(s)	Optional
<b>Project Acceptance Date</b>	Date of project completion and formal project acceptance. (equipment commissioned/O&M plan in place)	Date field(s)	Optional
<b>Funding Source</b>	Funding Source Type: <ul style="list-style-type: none"> <li>• Direct (ARRA)</li> <li>• Direct (Centralized Capital Funding)</li> <li>• Decentralized Operating Budgets</li> <li>• Utility Energy Service Contract (UESC)</li> <li>• Energy Savings Performance contract (ESPC)</li> <li>• Power Purchase Agreement (PPA)</li> <li>• Enhanced Use Lease (EUL)</li> <li>• Incentive Program</li> <li>• Other</li> </ul>	Selection: (list) Funding Source is indicated by supplying the Funding Level (Dollars)	Required (indicate the Funding Level for at least one Funding Source OR supply the Total Project Implementation Cost)
<b>Funding Level</b>	\$ value associated with funding source	Numeric: (Dollars)	Required for each funding source type selected
<b>Total Project Implementation Cost</b>	Total Project Implementation Cost may be entered by Funding Source or directly as a total. Does not include financing and interest payments	Numeric: (Dollars) Option: If entered by Funding Source, the system calculates the total of Funding Levels above.	Required
<b>Financing Costs</b>	<b><i>Total financing from all funding sources</i></b>	Numeric: (Dollars)	Required (if applicable)
<b>Total Awarded Contract Value</b>	<b><i>Calculated field: Total Project Implementation Costs + Total Financing Costs for all sources</i></b>	Numeric: (Dollars) system calculated total	Required
<b>Estimated LCC Net Savings</b>	Measure of cost effectiveness used to validate this project. Value in \$ entered directly	Numeric: (Dollars)	Optional
<b>Life of Project</b>	Estimated life of project in years	Numeric: (Years, integer)	Optional

Field Name	Description	Data Type/ Validation	Required/ Optional
<b>Estimated Annual Energy Savings by Fuel Type</b>	Estimated Savings (converted to Million Btu from fuel savings entered in native units below): <ul style="list-style-type: none"> <li>• Electricity Savings (kWh)</li> <li>• Natural Gas Savings (Thou. Cu Ft)</li> <li>• Coal - Anthracite (Short Tons)</li> <li>• Coal - Bituminous (Short Tons)</li> <li>• Coal – Coke (Short Tons)</li> <li>• Distillate Fuel Oil #1 (Gallons)</li> <li>• Distillate Fuel Oil #2 (Gallons)</li> <li>• Distillate Fuel Oil #4 (Gallons)</li> <li>• Distillate Fuel Oil #5 (Gallons)</li> <li>• Distillate Fuel Oil #6 (Gallons)</li> <li>• Propane (Gallons)</li> <li>• Liquid Propane (Gallons)</li> <li>• District Steam (Thou. Lbs.)</li> <li>• Chilled Water - Electric Driven (Ton Hours)</li> <li>• Chilled Water - Absorption (Ton Hours)</li> <li>• Chilled Water – Engine Driven (Ton Hours)</li> <li>• Kerosene (Gallons)</li> <li>• Diesel (Gallons)</li> <li>• Other</li> </ul>	Numeric: (Saved in native units by fuel type as indicated)	Required (if applicable)
<b>Total Estimated Annual Energy Savings</b>	Combined Estimated Annual Energy Savings entered by Fuel Type or entered directly as Million Btu	Numeric: (Million Btu) Note: Either calculated from native fuel type or entered as a total in Million Btu.	Required (if applicable) At least one: Energy or Water or Renewable Savings, is required.
<b>Estimated Annual Water Savings</b>	Estimated Annual Water Savings	Numeric: (Thou. Gallons)	Required (if applicable; see note for Total Estimated Energy Savings)
<b>Estimated Renewable Savings (Electricity)</b>	Estimated Annual Renewable Electricity Output Savings	Numeric: (kWh)	Required (if applicable; see note for Total Estimated Energy Savings)
<b>Estimated Renewable Savings (Thermal)</b>	Estimated Annual Renewable Thermal Output Savings	Numeric: (Million Btu)	Required (if applicable; see note for Total Estimated Energy Savings)
<b>Efficiency and Conservation Measures Implemented</b>	List of energy and water Efficiency and Conservation Measures (ECMs) implemented within this project grouped by Technology Category; # of ECMs bundled is indicated.	Selection: (list) Allow selection of multiple Technology Categories and ECMs. (choose at least 1 of 20 categories)	Required
<b>Project Comments</b>	Text field for capturing any notes related to this implemented project	Text: (2000 char max)	Optional

## EISA 432 CTS Project Follow-up Measurement and Verification – Data Fields

Field Name	Description	Data Type/ Validation	Required/ Optional
<b>Follow-up Activity Date</b>	Indicate date of this M & V report	Date	Required
<b>M &amp; V Methodology</b>	Identify the M & V Methodology used: <ul style="list-style-type: none"> <li>• Option A: Key Parameter monitoring (short term metering/ spot measurements of key parameter)</li> <li>• Option B: All Parameter monitoring (long term monitoring of all parameters normalizing for weather occupancy etc.)</li> <li>• Option C: Whole Building monitoring</li> <li>• Option D: Calibrated Computer Simulation</li> <li>• Multiple</li> </ul>	Select: (list)	Required
<b>Measured Annual Energy Savings</b>	Measured Energy Savings converted to Million Btu from fuel savings entered by Fuel Type in native units.	Numeric: (Million Btu)	Required (if applicable) At least one: Energy or Water or Renewable Savings, is required.
<b>Measured Annual Energy Savings By Fuel Type</b>	Measured Energy Saving reported by fuel type in native units: <ul style="list-style-type: none"> <li>• Electricity Savings (kWh)</li> <li>• Natural Gas Savings (Thou Cu Ft)</li> <li>• Coal - Anthracite (Short Tons)</li> <li>• Coal - Bituminous (Short Tons)</li> <li>• Coal - Coke (Short Tons)</li> <li>• Distillate Fuel Oil #1 (Gallons)</li> <li>• Distillate Fuel Oil #2 (Gallons)</li> <li>• Distillate Fuel Oil #4 (Gallons)</li> <li>• Distillate Fuel Oil #5 (Gallons)</li> <li>• Distillate Fuel Oil #6 (Gallons)</li> <li>• Propane (Gallons)</li> <li>• Liquid Propane (Gallons)</li> <li>• District Steam (Thou. Lbs.)</li> <li>• Chilled Water/Electric (Ton Hours)</li> <li>• Chilled Water/Absorption (Ton Hours)</li> <li>• Chilled Water/Engine (Ton Hours)</li> <li>• Kerosene (Gallons)</li> <li>• Diesel (Gallons)</li> <li>• Other (Million Btu)</li> </ul>	Numeric: (Million Btu)	Required (if applicable) At least one: Energy or Water or Renewable Savings, is required.
<b>Measured Annual Water Savings</b>	Measured Annual Water Savings	Numeric: (Thou. Gallons)	Required (if applicable; see note for Total Estimated Energy Savings)
<b>Measured Renewable Savings (Electricity)</b>	Measured Annual Renewable Electricity Output (Solar PV, Wind, etc.) Savings	Numeric: (kWh)	Required (if applicable; see note for Total Estimated Energy Savings)
<b>Measured Renewable Savings (Thermal)</b>	Measured Annual Renewable Thermal Output (Geothermal, Active/Passive Solar Biomass, etc.) Savings	Numeric: (Million Btu)	Required (if applicable; see note for Total Estimated Energy Savings)

## Appendix B: Contract Language and Instructions for ESCO Use of ePB in ESPCs

The following recommended contract language and instructions were adapted from existing language in DOE's ESPC IDIQ contracts, and can be adapted for use in other (non-DOE IDIQ) ESPC contracts to streamline data entry through ESCO participation.

### **Language for initial award of an ESPC:**

“The Contractor shall develop the TO Schedules using the ePB. (see eProject Builder System Instructions). The Contractor is responsible for validating that ePB-produced documents are correct.”

### **Language for post-installation measurement and verification of an ESPC:**

“The post-installation report shall include results of eProject Builder (ePB) output (see eProject Builder System Instructions), and M&V data and calculations.”

### **Language for the annual measurement and verification of an ESPC:**

“The annual M&V report shall include results of ePB output (see eProject Builder System Instructions), and data and calculations that demonstrate that continued ECM/WCM performance achieves the guaranteed annual energy, water, and related cost savings as required by the TO.”

Recommended Instructions referenced in the recommended contract language:

## **eProject Builder System Instructions**

### **Section 1 Introduction**

eProject Builder (ePB) is a secure online data collection system for ESPC projects. It is offered through a web-based tool managed on behalf of the U.S. Department of Energy by the University of California / Lawrence Berkeley National Laboratory (LBNL). This system is subject to the protections, requirements, limitations, and exemptions of 10 C.F.R. § 1004.3(e)(2) and the Freedom of Information Act, 5 U.S.C. § 552. The ePB system includes ESPC project data for State, local, and federal agencies. It provides a standardized format for collecting and reporting ESPC project data. ePB enables Energy Service Companies (ESCOs) and their contracting agencies or other entities to:

- A. Upload and track project-level information;
- B. Generate basic project reporting materials (e.g. task order schedules) that may be mandated by local, state, and/or federal agency requirements; and
- C. Benchmark proposed Energy Savings Performance Contract (ESPC) projects against aggregate statistics from a database of historical project data.

Authorized users of ePB include local, state, and federal government agencies, private companies and their authorized staff, as well as other organizations authorized by these government agencies and/or private companies and their authorized staff. ePB users deliver and/or access project-level information only for those projects for which they are authorized. Project-level information delivered and/or accessed by ePB users is described on the [eProject Builder website](#), and amended from time to time.

## **Section 2 General Process for Entering Project Information to ePB**

Customers (i.e., ordering agencies) will initiate a project through the ePB system and invite an individual ESCO contact to “build” the project. After being invited to use the system and registering, the “project builder” (i.e., the ESCO) will be able to enter project information. After the project information has been entered, the ESCO will have the ability to generate draft schedules and submit the project information for customer (i.e., “project initiator”) approval. Customer approval commits the project to the ePB system database and “project viewers”, outside parties invited by the ESCO or customer agency or other authorized users, will have the ability to view, but not edit, the project information. Customer agencies have the ability to unlock a project for modification and re-submittal by the ESCO. The entering of project data and customer approval is similar for project financial and energy savings data that defines the project upon award, and subsequently during the post-installation and annual measurement and verification.

## **Section 3 Requirements for Contractor**

All required project-level information is described on the ePB website. The contractor will collect and report project-level information to the ePB system at the following times for projects under the DOE ESPC IDIQ contract:

- A.** Draft schedules shall be incorporated into the Preliminary Assessment (PA) for submittal. Inclusion of the cancellation ceiling schedule is optional, or as specified by the ordering agency in Task Order Request for Proposal.
- B.** Complete draft schedules for the Draft Investment Grade Audit/Proposal shall be incorporated, when requested by the ordering agency.
- C.** Complete schedules for the Final IGA/Proposal, once final negotiations are complete, shall be generated and incorporated into the Final IGA/Proposal, as referenced in Attachment J-4. These schedules will match what will be incorporated into the Task Order. The contractor shall submit the project for approval through ePB so the ordering agency can review and approve the schedules before Task Order Award to ensure there is agreement with the Final IGA/Proposal.
- D.** Post-Installation M&V data shall be entered into ePB for the performance year of zero (0). The post-installation M&V schedule report within ePB shall be generated and incorporated into the Post-Installation Report, as referenced in Attachment J-4. Upon finalizing the post-installation report, the contractor shall submit the post-installation M&V data for approval through ePB so the ordering agency can review and approve the data.
- E.** Annual M&V data shall be entered annually into ePB for the performance year of one (1) through the end of the Task Order. The annual M&V schedule report within ePB shall be generated and incorporated into the Annual M&V Report on ECM Performance, as referenced in Attachment J-4.



Upon finalizing the post-installation report, the contractor shall submit the post-installation M&V data for approval through ePB so the ordering agency can review and approve the data.

F. Complete ePB schedules for a contract modification (if applicable)

#### **Section 4 ePB Support, Training Videos, and Documentation**

Please visit the [ePB Help site](#) for complete instructions, documentation, and training videos on how to upload project information and use the ePB system.

# Appendix C: eProject Builder Templates

## Calculating Version of the Template<sup>3</sup>

### ESPC Projects

SUMMARY SCHEDULE BASIC PROJECT INFORMATION						
<b>Agreement Type</b>	<b>Project Agreement Type (Choose from list)*</b>	<b>Guaranteed Savings</b>				
<b>Project Contact Information</b>	<b>Role</b>	<b>Institution</b>	<b>Name</b>	<b>Title</b>	<b>Email</b>	<b>Phone</b>
	Project Facilitator					
	Customer (Project Initiator)					
	ESCO (Project Builder)					
	Finance Specialist					
	Primary Financier					
<b>Project Identification &amp; Characteristics</b>	<b>Project Identification</b>			<b>Project Characteristics</b>		
	Task/Purchase Order #			List of Sites in Project (separated by commas)		
	Contract #			Number of Buildings in Project		
	Project Name			List of Buildings in Project (separated by commas)		
	Primary Project Location-City			Market Segment		
	Primary Project Location-State			Total Floor Area Affected by project (Square Feet)		
	Primary Project Location-Zipcode			Average Annual Energy Consumption of Affected Buildings (MMBtu/yr)		
	<b>Agency Name*</b>			<b>Implementation Period (months)*</b>		
	Sub-Agency Name/Region					
	Project ID #					
<b>Costs &amp; Financials</b>	<b>Financing Terms</b>			<b>Project Capitalization</b>		
	Applicable Financial Index			Total Implementation Price (from Schedule-2a Total)		\$0
	Performance Period (years)			<b>PLUS Financing Procurement Price-capitalized construction period interest (\$)*</b>		
	<b>Index Rate*</b>			<b>PLUS Financing Procurement Price-other expenses (\$)*</b>		
	<b>Added Premium (adjusted for tax incentives)*</b>			LESS Implementation Period Payments (from Schedule-1, (c))		\$0
	Project Interest Rate (sum of two above inputs)		0.00%	Total Amount Financed (Principal)		\$0
	Financing Issue Date (mm/dd/yyyy)			Bonded Amount		
	<b>Project Award Date (mm/dd/yyyy)*</b>			Start date of Performance Period (mm/dd/yyyy)		
	Effective Through (mm/dd/yyyy)			<b>Project Financial Summary</b>		
	Primary Type of Financing (choose from list)			Annual Estimated Energy Savings (MMBtu)		
	Secondary Type of Financing (choose from list)			Annual Estimated Water Savings (KGal)		
<b>Payment Timing*</b>			Total Estimated Cost Savings			
			Total Guaranteed Cost Savings			
			Total Payments			
<b>Other Information</b>	<b>Guarantee % of Estimated Savings*</b>			<b>Template Errors/Warnings</b>		
	Federal Contract Type					
	Primary Electric Utility					
	Primary Natural Gas Utility					
	Primary Water Utility					
<b>IMPORTANT INFORMATION:</b>						
(1) These schedules should not be altered or changed in any way except to add notes (see below). Please consult ePB documentation for assistance with completing these schedules, terminology, etc.						
(2) If selected, the contractor shall complete the installation of all proposed ECMs no later than the implementation period identified in the contract.						
(3) If applicable, the contractor shall propose "Bonded Amount" representing the basis of establishing performance and payment bonds.						
(4) Prior to award, the stated interest rate is considered preliminary and subject to change. The final interest rate will be based on market conditions at the time of award. The rate will be locked at time of award and will be fixed through the performance period.						
(5) Guaranteed % of Estimated Savings is share of project estimated savings that ESCO is guaranteeing.						
<b>ADDITIONAL NOTES:</b>						

3.0.15.c  
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<sup>3</sup> [https://eprojectbuilder.lbl.gov/download/templates/ePB\\_Calculating\\_Data\\_Template\\_3.0.15.xlsx](https://eprojectbuilder.lbl.gov/download/templates/ePB_Calculating_Data_Template_3.0.15.xlsx)



## ANNUAL DOLLAR SAVINGS ESCALATION RATES



Performance Period (year)	Electric Energy	Electric Demand	Natural Gas	Other Savings Type 1: Other	Other Savings Type 2: Other	Water	O&M	Other Non-Energy Savings
Implementation start through first year								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

**IMPORTANT INFORMATION:**

(1) "Implementation start through first year" reflects cumulative escalation occurring during the length of the implementation period through the first year of savings. This may represent an annual escalation figure that is compounded or another formulation (e.g., actual forecasts from utility companies).

(2) All estimated cost savings numbers reported in Schedule 4 ("First year estimated cost savings by ECM") are assumed to have already incorporated the "Implementation start through first year" escalation rates reported above.

(3) Please select other savings types from dropdown menu provided above, if applicable.

**ADDITIONAL NOTES:**

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07102020



**SCHEDULE #1  
COST SAVINGS AND PAYMENTS**



Implementation Period (Year 0)	(a)	(b)	(c)	
	Estimated Cost Savings*	Guaranteed Cost Savings*	Payments*	
Performance Period (Year)	(d)	(e)	(f)	(g)
	Estimated Annual Cost Savings	Guaranteed Annual Cost Savings	Annual Payments	Annual Dollar Savings Retained by Customer
1	\$0	\$0	\$0	\$0
2	\$0	\$0	\$0	\$0
3	\$0	\$0	\$0	\$0
4	\$0	\$0	\$0	\$0
5	\$0	\$0	\$0	\$0
6	\$0	\$0	\$0	\$0
7	\$0	\$0	\$0	\$0
8	\$0	\$0	\$0	\$0
9	\$0	\$0	\$0	\$0
10	\$0	\$0	\$0	\$0
11	\$0	\$0	\$0	\$0
12	\$0	\$0	\$0	\$0
13	\$0	\$0	\$0	\$0
14	\$0	\$0	\$0	\$0
15	\$0	\$0	\$0	\$0
16	\$0	\$0	\$0	\$0
17	\$0	\$0	\$0	\$0
18	\$0	\$0	\$0	\$0
19	\$0	\$0	\$0	\$0
20	\$0	\$0	\$0	\$0
21	\$0	\$0	\$0	\$0
22	\$0	\$0	\$0	\$0
23	\$0	\$0	\$0	\$0
24	\$0	\$0	\$0	\$0
25	\$0	\$0	\$0	\$0
<b>Total Performance Period:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Implementation &amp; Performance Period</b>		<b>Total Guaranteed Cost Savings (b+e)</b>	<b>Total Payments (c+f)</b>	
		<b>\$0</b>	<b>\$0</b>	

**IMPORTANT INFORMATION:**

- (1) Implementation period savings (both estimated and guaranteed) can represent two things: a) construction period savings (where savings from some ECMs start accruing before construction is complete on the greater project), and b) customer buydown amounts. Customer buydowns are counted as savings because they constitute offsets to capital expenses in the project. Implementation period savings should not include up-front project incentives (e.g., equipment rebates) because those are entered in Schedule 2a.
- (2) The guaranteed annual cost savings are pursuant to the description in the M&V plan proposed for the project.
- (3) The total of annual payments represents the contract price and should be supported by information submitted.
- (4) If applicable, prior to the performance period, implementation period energy savings and payments are one-time amounts only.
- (5) If applicable, the guaranteed cost savings during the implementation and performance periods must exceed the payments.
- (6) Escalation rates (see Annual Escalation Rates) apply to the estimated annual cost savings in column (d).

**ADDITIONAL NOTES:**

3.0.15.c  
07102020



**SCHEDULE #2a**  
**IMPLEMENTATION PRICE BY ENERGY CONSERVATION MEASURE**



ECM - Technology Category*	ECM No.	ECM Description - Title*	ECM Size	ECM Coverage (%)	Location	M&V Expense (\$)	(a)	(b)	(c)	(d)
							Cost of Goods and Services (Base Construction)*	Project Implementation Delivery Charge*	Applied Incentives	Implementation Price PDP + [a+b] - c
Project Development Price (PDP)-Technical Energy Audit and Project Proposal										
<b>TOTALS:</b>						\$0	\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

- (1) This schedule is not to be altered or changed in any way.
- (2) Cost of Goods and Services (Base Construction) shall include only direct costs for each ECM and no post-acceptance performance period expenses. Project Implementation Delivery Charges are added to each of the ECMs and include direct and indirect costs as well as profit. For IDIQ ESPC projects, Cost of Goods and Services and Project Implementation Delivery Charges are itemized in Schedule-2b.
- (3) Contractor shall attach adequate supporting information detailing total implementation price.
- (4) For the following ECMs, enter under ECM Size the total installed capacity of new equipment in the units specified; chillers and packaged units in tons (e.g., for a chiller - 250 tons), VFDs in hp, boilers and furnaces in input Btu/hr, BAS/EMCS in number of points, transformers in kVA, generators in kW. For lighting ECMs, specify baseline kW treated.
- (5) ECM coverage (%) represents the percentage share of the total project floor area (see Summary Schedule) affected by the ECM.
- (6) The sum of M&V expenses for each ECM equals the sum of items b and l on Schedule-2b. These expenses are already included in the Base Construction Cost and Project Implementation Delivery Charge.

**ADDITIONAL NOTES:**

3.0.15.c  
07102020



**SCHEDULE #2b**  
**Project Implementation Pricing Worksheet**



	Cost Item	Description	Percent of Cost of Goods and Services (Base Construction)	Price/Cost	Errors/Warnings	Schedule 2a Costs
	a	Subcontractor Costs (Contractor Costs To ESCO) exclusive of M&V equipment	A fixed-price bid received in response to a Request for Proposals issued by an ESCO for a specific scope of work, exclusive of the cost to install M&V equipment.			
	b	M&V Equipment Installed During Construction	The cost of equipment installed during construction which is integral to performance of M&V activities in the performance period.			
	c	Self-Performed Work	A fixed-price cost for a specific scope of work performed by an ESCO.			
	d	Other Direct Purchases Of Equipment, Material, Supplies (Supplier Costs To ESCO) exclusive of M&V equipment	In some cases the ESCO may purchase equipment directly to be installed under scopes of work as described in items (a) and (c) above. This amount (d) represents the purchase price of all such equipment.			
Sum (a+b+c+d)	e	<b>Cost of Goods and Services (Base Construction)</b>		\$0		\$0
	f	Design	Design costs include all professional architecture and engineering costs required to design and specify projects to be installed as part of the work, appropriately burdened for overhead and profit as determined by the ESCO.	\$0		
	g	Project Management	The cost of administering and managing the project, appropriately burdened for overhead and profit as determined by the ESCO.	\$0		
	h	Performance and Payment Bonds	All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed.	\$0		
	i	Commissioning and Training	At the completion of construction, equipment is commissioned. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the the appropriately burdened cost (profit & overhead) as determined by the ESCO. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.  Training costs may be provided by subcontractors and as such will be included in their subcontractor bid. However, if the ESCO plans to provide training, the burdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training. This line item cannot be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions.	\$0		
	j	Measurement and Verification	At the completion of construction, the ESCO completes the M&V of installed equipment to verify post-retrofit energy and water efficiency, operation, and prepares a Post-Installation M&V report. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall be appropriately burdened (overhead and profit) as determined by the ESCO. If completed by an external M&V firm, this cost includes the turnkey cost to provide necessary M&V services.	\$0		
	k	Overhead Percent	The indirect costs or fixed expenses of operating the ESCO's business, applied to the Cost of Goods and Service.	\$0		
	l	Profit Percent	The anticipated, but not guaranteed, gross profit associated with the project, applied to the Cost of Goods and Service.	\$0		
Sum (f to l)	m	<b>Implementation Delivery Percentage/Charge</b>		\$0		\$0
	n	<b>Project Development Price (PDP)-Technical Energy Audit and Project Proposal</b>		\$0		\$0
	o	<b>Applied Incentives</b>		\$0		\$0
Sum (e+m+n-o)	o	<b>Total Implementation Price</b>		\$0.00		\$0.00

**IMPORTANT INFORMATION:**

(1) The Implementation delivery percentage shall not exceed the maximum delivery percentage, if applicable.

**ADDITIONAL NOTES:**

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07102020

**SCHEDULE #3**  
**PERFORMANCE PERIOD CASH FLOW**

Term (year)		Implementation Period (Year 0)	1	2	3	4	5	6	7	8	9	10	25	Totals	
<b>Debt Service/Performance Period Payments</b>	Principal Repayment		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Performance Period Incentives and Other Payments													\$0	
	Dollar savings retained by customer		\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1		
	Interest (\$)													\$0	
	Total Debt Service (a)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Performance Period Expenses</b>	Management/Administration													\$0	
	Operation													\$0	
	Maintenance													\$0	
	Repair and Replacement													\$0	
	Measurement and Verification*													\$0	
	Other PP Expense 1: Other													\$0	
	Other PP Expense 2: Other													\$0	
	SUBTOTAL Before Application of Performance Period Delivery Percentage		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Performance Period Delivery Percentage (%) <sup>1</sup>														
	Performance Period Delivery Charge (\$) <sup>2</sup>		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
TOTAL Performance Period Price (b)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Annual Cash Flow (Performance Period)</b>	<b>TOTAL - ANNUAL PAYMENTS (a)+(b)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

**IMPORTANT INFORMATION:**  
 (1) Any Implementation Period payment will be applied to reduce the principal repayment.  
 (2) Examples of "Performance Period Incentives and Other Payments" include: REC proceeds, demand response payments, and extra customer payments. Incentives and payments are assumed to occur at the same time (beginning or end of period) that was identified in the "Summary Schedule."  
 (3) Future payments to project facilitators (consultants) are one example of uses for dollar savings retained by the customer.  
**ADDITIONAL NOTES:**

3.0.15.c  
07102020

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

ECM Number	Short Description	First Year ONLY Option <sup>1</sup>	Baseline Energy and Non-energy Consumption													f = 0.0034(2 <sup>1</sup> b <sup>1</sup> h) / (d <sup>1</sup> +e <sup>1</sup> +e <sup>1</sup> b)	g = b <sup>1</sup> +c <sup>1</sup> +d <sup>1</sup> +e <sup>1</sup> +e <sup>1</sup> b	h	i	j	k	l = g+h+i	m	n = m/l												
			Baseline electricity use (kWh/yr)	Baseline electricity demand (kW/ms)	Baseline natural gas use (MMBtu/yr)	Baseline Use: Other (MMBtu/yr)	Baseline Use: Other (MMBtu/yr)	Baseline water use (MGal/yr)	Baseline energy and resource costs (\$/yr)	Baseline O&M costs (\$/yr)	Baseline other non-energy costs (\$/yr)	Type of other non-energy costs	Electric energy savings (kWh/yr)	Electric energy savings (\$/yr)	Electric demand savings (kW/ms)										Electric demand savings (\$/yr)	Natural gas savings (MMBtu/yr)	Natural gas savings (\$/yr)	Other Savings Type 1: Other (MMBtu/yr)	Other Savings Type 1: Other (\$/yr)	Other Savings Type 2: Other (MMBtu/yr)	Other Savings Type 2: Other (\$/yr)	Total energy savings (MMBtu/yr)	Total energy cost savings (\$/yr)	Water savings (kgal/yr)	Water savings (\$/yr)	O&M cost savings (\$/yr)
	Project Development Price (PDP) Technical Energy Audit and Project Proposal																																		\$0	
<b>TOTALS:</b>			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**IMPORTANT INFORMATION:**  
 (1) Energy conversion factors for MMBtu: MMBtu=1000 Btu; kWh of Electricity=0.003413 MMBtu; Therm of Natural Gas=1.033 MMBtu; 1 gal of #2 Heating Oil=1.3859 MMBtu; 1 gal of Diesel=1.3778 MMBtu; 1 short ton of Coal=20,000 pounds=11.548 MMBtu; 1 gal of Propane=0.91333 MMBtu.  
 (2) At least one of the following fields is required to compute the simple payback.  
 (3) User should enter an average monthly kWh reduction figure. Demand savings can (and usually do) vary by season and in their conversion rate to dollar savings.  
 (4) All estimated cost savings numbers reported in this schedule are assumed to have already incorporated the "Implementation Start" through "First Year" escalation rates reported in the Annual Escalation Rates schedule.

**ADDITIONAL NOTES:**

3.0.15.c  
07102020



**SCHEDULE #5  
CANCELLATION CEILINGS**



End of Performance Period (Year)	1	2	3	4	5	6	7	8	9	10	11	12
Project Acceptance												
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												

**IMPORTANT INFORMATION:**

- (1) This schedule should only be completed if required by the contract.
- (2) Cancellation ceilings for each time period specified below establish the maximum termination liability for that time period, and include the remaining unamortized principal of the total amount financed for each time period specified above plus any prepayment charges. Actual total termination costs will be negotiated.
- (3) End of the year annual cancellation ceiling costs should be shown in month 12 (column N).
- (4) In the event of TO cancellation, specify the cancellation ceiling as a percentage of remaining principal balance in "Additional Notes" below.

**ADDITIONAL NOTES:**

3.0.15.c  
07/10/2020



# UESC Projects

SUMMARY SCHEDULE BASIC PROJECT INFORMATION						
<b>Agreement Type</b>	<b>Project Agreement Type (choose from list)*</b>		UESC			
<b>Project Contact Information</b>	<b>Role</b>	<b>Institution</b>	<b>Name</b>	<b>Title</b>	<b>Email</b>	<b>Phone</b>
	Project Facilitator					
	Customer (Project Initiator)					
	Utility (Project Builder)					
	Primary FEMP Contact					
	Primary Financier					
<b>Project Identification &amp; Characteristics</b>	<b>Project Identification</b>			<b>Project Characteristics</b>		
	Task/Purchase Order #			List of Sites in Project (separated by commas) Number of Buildings in Project List of Buildings in Project (separated by commas) Market Segment Total Floor Area Affected by project (Square Feet) Average Annual Energy Consumption of Affected Buildings (MMBtu/yr) Implementation Period (months)*		
	Contract #					
	Project Name					
	Primary Project Location-City					
	Primary Project Location-State					
	Primary Project Location-Zipcode					
	Agency Name*					
Sub Agency Name/Region						
Project ID #						
<b>Costs &amp; Financials</b>	<b>Financing Terms</b>			<b>Project Capitalization</b>		
	Applicable Financial Index			Total Implementation Price (from Schedule-2a Total)	\$0	
	Performance Period (years)			PLUS Financing Procurement Price-capitalized construction period interest (\$)*		
	Index Rate*			PLUS Financing Procurement Price-other expenses (\$)*		
	Added Premium (adjusted for tax incentives)*			LESS Implementation Period Payments (from Schedule-1, (c))	\$0	
	Project Interest Rate (sum of two above inputs)	0.00%		Total Amount Financed (principal)	\$0	
	Financing Issue Date (mm/dd/yyyy)			Bonded Amount		
	Project Award Date (mm/dd/yyyy)*			Start date of Performance Period (mm/dd/yyyy)		
	Effective Through (mm/dd/yyyy)					
	Primary Type of Financing (choose from list)			<b>Project Financial Summary</b>		
Secondary Type of Financing (choose from list)			Annual Estimated Energy Savings (MMBtu)			
Payment Timing*			Annual Estimated Water Savings (kGal)			
			Total Estimated Cost Savings			
			Total Guaranteed Cost Savings	\$0		
			Total Payments			
<b>Other Information</b>	% Savings Devoted to Payments*			<b>Template Errors/Warnings</b>		
	Federal Contract Type					
	Primary Electric Utility					
	Primary Natural Gas Utility					
	Primary Water Utility					
<b>IMPORTANT INFORMATION:</b>						
(1) These schedules should not be altered or changed in any way except to add notes (see below). Please consult ePB documentation for assistance with completing these schedules, terminology, etc.						
(2) If selected, the contractor shall complete the installation of all proposed ECMs no later than the Implementation period identified in the contract.						
(3) If applicable, the contractor shall propose "bonded amount" representing the basis of establishing performance and payment bonds.						
(4) Prior to award, the stated interest rate is considered preliminary and subject to change. The final interest rate will be based on market conditions at the time of award. The rate will be locked at time of award and will be fixed through the performance period.						
<b>ADDITIONAL NOTES:</b>						
3.0.15.c						
07/10/2020						



## ANNUAL DOLLAR SAVINGS ESCALATION RATES



Performance Period (year)	Electric Energy	Electric Demand	Natural Gas	Other Savings Type 1: Other	Other Savings Type 2: Other	Water	O&M	Other Non-Energy Savings
Implementation start through first year								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

**IMPORTANT INFORMATION:**

(1) "Implementation start through first year" reflects cumulative escalation occurring during the length of the implementation period through the first year of savings. This may represent an annual escalation figure that is compounded or another formulation (e.g., actual forecasts from utility companies).

(2) All estimated cost savings numbers reported in Schedule 4 ("First year estimated cost savings by ECM") are assumed to have already incorporated the "Implementation start through first year" escalation rates reported above.

(3) Please select other savings types from dropdown menu provided above, if applicable.

**ADDITIONAL NOTES:**

3.0.15.c  
07102020



**SCHEDULE #1(u)- UESC  
COST SAVINGS AND PAYMENTS**



Implementation Period (Year 0)	(a)	(c)	
	Estimated Cost Savings*	Payments*	
Performance Period (Year)	(d)	(f)	(g)
	Estimated Annual Cost Savings	Annual Payments	Annual Dollar Savings Retained by Customer
1	\$0	\$0	\$0
2	\$0	\$0	\$0
3	\$0	\$0	\$0
4	\$0	\$0	\$0
5	\$0	\$0	\$0
6	\$0	\$0	\$0
7	\$0	\$0	\$0
8	\$0	\$0	\$0
9	\$0	\$0	\$0
10	\$0	\$0	\$0
11	\$0	\$0	\$0
12	\$0	\$0	\$0
13	\$0	\$0	\$0
14	\$0	\$0	\$0
15	\$0	\$0	\$0
16	\$0	\$0	\$0
17	\$0	\$0	\$0
18	\$0	\$0	\$0
19	\$0	\$0	\$0
20	\$0	\$0	\$0
21	\$0	\$0	\$0
22	\$0	\$0	\$0
23	\$0	\$0	\$0
24	\$0	\$0	\$0
25	\$0	\$0	\$0
<b>Total Performance Period:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Implementation &amp; Performance Period</b>		<b>Total Payments (c+f)</b>	
		<b>\$0</b>	

**IMPORTANT INFORMATION:**  
 (1) Implementation period savings can represent two things: a) construction period savings (where savings from some ECMs start accruing before construction is complete on the greater project), and b) customer buydown amounts. Customer buydowns are counted as savings because they constitute offsets to capital expenses in the project. Implementation period savings should not include up-front project incentives (e.g., equipment rebates) because those are entered in Schedule 2a.  
 (2) The total of annual payments represents the contract price and should be supported by information submitted.  
 (3) If applicable, prior to the performance period, implementation period energy savings and payments are one-time amounts only.  
 (4) Escalation rates (see Annual Escalation Rates) apply to the estimated annual cost savings in column (d).

**ADDITIONAL NOTES:**  
 [Empty yellow box for additional notes]

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07102020

**SCHEDULE #2a  
IMPLEMENTATION PRICE BY ENERGY CONSERVATION MEASURE**

ECM - Technology Category*	ECM No.	ECM Description - Title*	ECM Size	ECM Coverage (%)	Location	PA Expenses (\$)	(a)	(b)	(c)	(d)
							Implementation Cost (Direct)*	Mark-up (Overhead & Profit)	Applied Incentives	Implementation Price PDP + [a+b] - c
Project Development Price (PDP)-Technical Energy Audit and Project Proposal										
<b>TOTALS:</b>						\$0	\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

(1) This schedule is not to be altered or changed in any way.

(2) Implementation Cost shall include only direct costs for each ECM and no post-acceptance performance period expenses. Mark-up are added to each of the ECMs and include direct and indirect costs as well as profit.

(3) Contractor shall attach adequate supporting information detailing total implementation price.

(4) For the following ECMs, enter under ECM Size the total installed capacity of new equipment in the units specified: chillers and packaged units in tons (e.g., for a chiller - 250 tons), VFDs in hp, boilers and furnaces in input Btu/hr, BAS/EMCS in number of points, transformers in KVA, generators in kW. For lighting ECMs, specify baseline kW treated.

(5) ECM coverage (%) represents the percentage share of the total project floor area (see Summary Schedule) affected by the ECM.

**ADDITIONAL NOTES:**

3.0.15.c  
07102020

**SCHEDULE #3  
PERFORMANCE PERIOD CASH FLOW**

Term (year)	Implementation Period (Year 0)	1	2	3	4	5	6	7	8	9	10	25	Totals
		<b>Debt Service/Performance Period Payments</b>											
Principal Repayment		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Performance Period Incentives and Other Payments													\$0
Dollar savings retained by customer		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest (\$)													\$0
Total Debt Service (a)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Performance Period Expenses</b>													
Management/Administration													\$0
Operation													\$0
Maintenance													\$0
Repair and Replacement													\$0
Performance Assurance													\$0
Other PP Expense 1: Other													\$0
Other PP Expense 2: Other													\$0
SUBTOTAL Before Application of Mark-up		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Mark-up (Overhead & Profit %)													
Mark-up (Overhead & Profit \$)		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
TOTAL Performance Period Price (b)		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Cash Flow (Performance Period)</b>	<b>TOTAL - ANNUAL PAYMENTS (a)-(b)</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

(1) Any Implementation Period payment will be applied to reduce the principal repayment.

(2) Examples of "Performance Period Incentives and Other Payments" include: REC proceeds, demand response payments, and extra customer payments. Incentives and payments are assumed to occur at the same time (beginning or end of period) that was identified in the "Summary Schedule."

(3) Future payments to project facilitators (consultants) are one example of uses for dollar savings retained by the customer.

**ADDITIONAL NOTES:**

3.0.15.c  
07102020







## ANNUAL DOLLAR SAVINGS ESCALATION RATES



Performance Period (year)	Electric Energy	Electric Demand	Natural Gas	Other Savings Type 1: Other	Other Savings Type 2: Other	Water	O&M	Other Non-Energy Savings
Implementation start through first year								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

**IMPORTANT INFORMATION:**

- (1) "Implementation start through first year" reflects cumulative escalation occurring during the length of the implementation period through the first year of savings. This may represent an annual escalation figure that is compounded or another formulation (e.g., actual forecasts from utility companies).
- (2) All estimated cost savings numbers reported in Schedule 4 ("First year estimated cost savings by ECM") are assumed to have already incorporated the "Implementation start through first year" escalation rates reported above.
- (3) Please select other savings types from dropdown menu provided above, if applicable.

**ADDITIONAL NOTES:**

0710020								
3.0.15.n								



**SCHEDULE #1  
COST SAVINGS AND PAYMENTS**



Implementation Period (Year 0)	(a)	(b)	(c)	
	Estimated Cost Savings	Guaranteed Cost Savings	Payments	
Performance Period (Year)	(d)	(e)	(f)	(g)
	Estimated Annual Cost Savings	Guaranteed Annual Cost Savings	Annual Payments	Annual Dollar Savings Retained by Customer
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
<b>Total Performance Period:</b>				
<b>Total Implementation &amp; Performance Period</b>		<b>Total Guaranteed Cost Savings (b+e)</b>	<b>Total Payments (c+f)</b>	
		\$0	\$0	

**IMPORTANT INFORMATION:**

(1) Implementation period savings (both estimated and guaranteed) can represent two things: a) construction period savings (where savings from some ECMs start accruing before construction is complete on the greater project), and b) customer buydown amounts. Customer buydowns are counted as savings because they constitute offsets to capital expenses in the project. Implementation period savings should not include up-front project incentives (e.g., equipment rebates) because those are entered in Schedule 2a.

(2) The guaranteed annual cost savings are pursuant to the description in the M&V plan proposed for the project.

(3) The total of annual payments represents the contract price and should be supported by information submitted.

(4) If applicable, prior to the performance period, implementation period energy savings and payments are one-time amounts only.

(5) If applicable, the guaranteed cost savings during the implementation and performance periods must exceed the payments.

(6) Escalation rates (see Annual Escalation Rates) apply to the estimated annual cost savings in column (d).

**ADDITIONAL NOTES:**

0710020  
3.0.15.n





**SCHEDULE #2a  
IMPLEMENTATION PRICE BY ENERGY CONSERVATION MEASURE**



ECM - Technology Category	ECM No.	ECM Description - Title	ECM Size	ECM Coverage (%)	Location	M&V Expense (\$)	(a)	(b)	(c)	(d)
							Cost of Goods and Services (Base Construction)	Project Implementation Delivery Charge*	Applied Incentives	Implementation Price PDF + (a+b) - c
Project Development Price (PDF)-Technical Energy Audit and Project Proposal										
<b>TOTALS:</b>						\$0	\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

- (1) This schedule is not to be altered or changed in any way.
- (2) Cost of Goods and Services (Base Construction) shall include only direct costs for each ECM and no post-acceptance performance period expenses. Project Implementation Delivery Charges are added to each of the ECMs and include direct and indirect costs as well as profit. For IDIQ EPC projects, Cost of Goods and Services and Project Implementation Delivery Charges are itemized in Schedule 2b.
- (3) Contractor shall attach adequate supporting information detailing total implementation price.
- (4) For the following ECMs, enter under ECM Size the total installed capacity of new equipment in the units specified: chillers and packaged units in tons (e.g., for a chiller - 250 tons), VFDs in hp, boilers and furnaces in input Btu/hr, BAS/EMCS in number of points, transformers in kVA, generators in kW. For lighting ECMs, specify baseline kW treated.
- (5) ECM coverage (%) represents the percentage share of the total project floor area (see Summary Schedule) affected by the ECM.
- (6) The sum of M&V expenses for each ECM equals the sum of items b and j on Schedule 2b. These expenses are already included in the Base Construction Cost and Project Implementation Delivery Charge.

**ADDITIONAL NOTES:**

0710020  
3.0.15.n

**SCHEDULE #2b**  
**Project Implementation Pricing Worksheet**

	Cost Item	Description	Percent of Cost of Goods and Services (Base Construction)	Price/Cost
a	Subcontractor Costs (Contractor Costs To ESCO) exclusive of M&V equipment	A fixed-price bid received in response to a Request for Proposals issued by an ESCO for a specific scope of work, exclusive of the cost to install M&V equipment.		
b	M&V Equipment Installed During Construction	The cost of equipment installed during construction which is integral to performance of M&V activities in the performance period.		
c	Self-Performed Work	A fixed price cost for a specific scope of work performed by an ESCO.		
d	Other Direct Purchases of Equipment, Material, Supplies (Supplier Costs To ESCO) exclusive of M&V equipment	In some cases the ESCO may purchase equipment directly to be installed under scopes of work as described in items (a) and (c) above. This amount (d) represents the purchase price of all such equipment.		
Sum (a+b+c+d)	e	<b>Cost of Goods and Services (Base Construction)</b>		<b>\$0</b>
f	Design	Design costs include all professional architecture and engineering costs required to design and specify projects to be installed as part of the work, appropriately burdened for overhead and profit as determined by the ESCO.		
g	Project Management	The cost of administering and managing the project, appropriately burdened for overhead and profit as determined by the ESCO.		
h	Performance and Payment Bonds	All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed.		
i	Commissioning and Training	At the completion of construction, equipment is commissioned. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the the appropriately burdened cost (profit & overhead) as determined by the ESCO. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.  Training costs may be provided by subcontractors and as such will be included in their subcontractor bid. However, if the ESCO plans to provide training, the burdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training. This line item cannot not be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions.		
j	Measurement and Verification	At the completion of construction, the ESCO completes the M&V of installed equipment to verify post-retrofit energy and water efficiency, operation, and prepares a Post-Installation M&V report. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall be appropriately burdened (overhead and profit) as determined by the ESCO. If completed by an external M&V firm, this cost includes the turnkey cost to provide necessary M&V services.		
k	Overhead Percent	The indirect costs or fixed expenses of operating the ESCO's business, applied to the Cost of Goods and Service.		
l	Profit Percent	The anticipated, but not guaranteed, gross profit associated with the project, applied to the Cost of Goods and Service.		
Sum (f to l)	m	<b>Implementation Delivery Percentage/Charge</b>		<b>\$0</b>
n	<b>Project Development Price (PDP)-Technical Energy Audit and Project Proposal</b>			<b>\$0</b>
q	<b>Applied Incentives</b>			<b>\$0</b>
Sum (e+m+n-q)	o	<b>Total Implementation Price</b>		<b>\$0.00</b>

**IMPORTANT INFORMATION:**

(1) The implementation delivery percentage shall not exceed the maximum delivery percentage, if applicable.

**ADDITIONAL NOTES:**

0710020  
3.0.15.n



# UESC Projects

SUMMARY SCHEDULE BASIC PROJECT INFORMATION						
<b>Agreement Type</b>	Project Agreement Type (choose from list)		UESC			
<b>Project Contact Information</b>	<b>Role</b>	<b>Institution</b>	<b>Name</b>	<b>Title</b>	<b>Email</b>	<b>Phone</b>
	Project Facilitator					
	Customer (Project Initiator)					
	Utility (Project Builder)					
	Primary FEMP Contact					
	Primary Financier					
<b>Project Identification &amp; Characteristics</b>	<b>Project Identification</b>			<b>Project Characteristics</b>		
	Task/Purchase Order #			List of Sites in Project (separated by commas)		
	Contract #			Number of Buildings in Project		
	Project Name			List of Buildings in Project (separated by comma if more than one)		
	Primary Project Location-City			Market Segment		
	Primary Project Location-State			Total Floor Area Affected by Project (Square Feet)		
	Primary Project Location-Zipcode			Average Annual Energy Consumption of Affected Buildings (MMBtu/Yr)		
	Agency Name			Implementation Period (months)		
Sub Agency Name/Region						
Project ID #						
<b>Costs &amp; Financials</b>	<b>Financing Terms</b>			<b>Project Capitalization</b>		
	Applicable Financial Index			Total Implementation Price (from Schedule 2a Total)		\$0
	Performance Period (years)			PLUS Financing Procurement Price-capitalized construction period interest (\$)		
	Index Rate*			PLUS Financing Procurement Price-other expenses (\$)		
	Added Premium (adjusted for tax incentives)*			LESS Implementation Period Payments (from Schedule 1 - (c))		\$0
	Project Interest Rate (sum of two above inputs)		0.00%	Total Amount Financed (principal)		\$0
	Financing Issue Date (mm/dd/yyyy)			Bonded Amount		
	Project Award Date (mm/dd/yyyy)			Start date of Performance Period (mm/dd/yyyy)		
	Effective Through (mm/dd/yyyy)					
	Primary Type of Financing (choose from list)			<b>Project Financial Summary</b>		
Secondary Type of Financing (choose from list)			Annual Estimated Energy Savings (MMBtu)			
Payment Timing			Annual Estimated Water Savings (kGal)			
			Total Estimated Cost Savings			
			Total Guaranteed Cost Savings		\$0	
			Total Payments			
<b>Other Information</b>	% Savings Devoted to Payments			<b>Template Errors/Warnings</b>		
	Federal Contract Type					
	Primary Electric Utility					
	Primary Natural Gas Utility					
	Primary Water Utility					
<b>IMPORTANT INFORMATION:</b>						
(1) These schedules should not be altered or changed in any way except to add notes (see below). Please consult ePB documentation for assistance with completing these schedules, terminology, etc.						
(2) If selected, the contractor shall complete the installation of all proposed ECMs no later than the implementation period identified in the contract.						
(3) If applicable, the contractor shall propose Bonded Amount representing the basis of establishing performance and payment bonds.						
(4) Prior to award, the stated interest rate is considered preliminary and subject to change. The final interest rate will be based on market conditions at the time of award. The rate will be locked at time of award and will be fixed through the performance period.						
<b>ADDITIONAL NOTES:</b>						
0710020						
3.0.15.n						



## ANNUAL DOLLAR SAVINGS ESCALATION RATES



Performance Period (year)	Electric Energy	Electric Demand	Natural Gas	Other Savings Type 1: Other	Other Savings Type 2: Other	Water	O&M	Other Non-Energy Savings
Implementation start through first year								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								

**IMPORTANT INFORMATION:**

- (1) "Implementation start through first year" reflects cumulative escalation occurring during the length of the implementation period through the first year of savings. This may represent an annual escalation figure that is compounded or another formulation (e.g., actual forecasts from utility companies).
- (2) All estimated cost savings numbers reported in Schedule 4 ("First year estimated cost savings by ECM") are assumed to have already incorporated the "Implementation start through first year" escalation rates reported above.
- (3) Please select other savings types from dropdown menu provided above, if applicable.

**ADDITIONAL NOTES:**

0710020								
3.0.15.n								



**SCHEDULE #1 (U) - UESC  
COST SAVINGS AND PAYMENTS**



Implementation Period (Year 0)	(a)	(c)	
	Estimated Cost Savings	Payments	
Performance Period (Year)	(d)	(f)	(g)
	Estimated Annual Cost Savings	Annual Payments	Annual Dollar Savings Retained by Customer
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
<b>Total Performance Period:</b>	\$0	\$0	
<b>Total Implementation &amp; Performance Period</b>	<b>Total Payments (c+f)</b>		
	\$0		

**IMPORTANT INFORMATION:**

(1) Implementation period savings can represent two things: a) construction period savings (where savings from some ECMs start accruing before construction is complete on the greater project), and b) customer buydown amounts. Customer buydowns are counted as savings because they constitute offsets to capital expenses in the project. Implementation period savings should not include up-front project incentives (e.g., equipment rebates) because those are entered in Schedule 2a.

(2) The total of annual payments represents the contract price and should be supported by information submitted.

(3) If applicable, prior to the performance period, implementation period energy savings and payments are one-time amounts only.

(4) Escalation rates (see Annual Escalation Rates) apply to the estimated annual cost savings in column (d).

**ADDITIONAL NOTES:**

[Redacted area]

0710020  
3.0.15.n

**SCHEDULE #2a  
IMPLEMENTATION PRICE BY ENERGY CONSERVATION MEASURE**

ECM - Technology Category	ECM No.	ECM Description - Title	ECM Size	ECM Coverage (%)	Location	PA Expenses (\$)	(a)	(b)	(c)	(d)
							Implementation Cost (Direct)	Mark-up (Overhead & Profit)	Applied Incentives	Implementation Price PDP + (a+b) - c
<b>Project Development Price (PDP)-Technical Energy Audit and Project Proposal</b>										
<b>TOTALS:</b>							\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

- (1) This schedule is not to be altered or changed in any way.
- (2) Implementation Cost shall include only direct costs for each ECM and no post-acceptance performance period expenses. Mark-up are added to each of the ECMs and include direct and indirect costs as well as profit.
- (3) Contractor shall attach adequate supporting information detailing total implementation price.
- (4) For the following ECMs, enter under ECM Size the total installed capacity of new equipment in the units specified: chillers and packaged units in tons (e.g., for a chiller - 250 tons), VFDs in hp, boilers and furnaces in input Btu/hr, BAS/EMCS in number of points, transformers in kVA, generators in kW. For lighting ECMs, specify base/kW treated.
- (5) ECM coverage (%) represents the percentage share of the total project floor area (see Summary Schedule) affected by the ECM.

**ADDITIONAL NOTES:**

0710020  
3.0.15.n

**SCHEDULE #3  
PERFORMANCE PERIOD CASH FLOW**

	Term (year)	Implementation Period (Year 0)	1	2	3	4	5	6	7	8	18	19	20	25	Totals
			<b>Debt Service/Performance Period Payments</b>	Principal Repayment											
Performance Period Incentives and Other Payments															\$0
Interest (\$)															\$0
Total Debt Service (\$)		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Performance Period Expenses</b>	Management/Administration														\$0
	Operation														\$0
	Maintenance														\$0
	Repair and Replacement														\$0
	Performance Assurance														\$0
	Other PP Expense 1-Other														\$0
	Other PP Expense 2-Other														\$0
	SUBTOTAL Before Application of Mark-up														\$0
	Mark-up (Overhead & Profit) %														\$0
	Mark-up (Overhead & Profit) \$														\$0
<b>TOTAL Performance Period Price (\$)</b>			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Annual Cash Flow (Performance Period)</b>	<b>TOTAL - ANNUAL PAYMENTS (b) - (a)</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

**IMPORTANT INFORMATION:**

- (1) Any Implementation Period payment will be applied to reduce the principal repayment.
- (2) Examples of Performance Period Incentives and Other Payments include: REC proceeds, demand response payments, and extra customer payments. Incentives and payments are assumed to occur at the same time (beginning or end of period) that was identified in the Summary Schedule.
- (3) Future payments to project facilitator (consultants) are one example of uses for dollar savings retained by the customer.

**ADDITIONAL NOTES:**

0710020  
3.0.15.n





# Direct Funded Projects

SUMMARY SCHEDULE BASIC PROJECT INFORMATION						
<b>Agreement Type</b>	Project Agreement Type (choose from list) <b>Direct Funded</b>					
<b>Project Contact Information</b>	<b>Role</b>	<b>Institution</b>	<b>Name</b>	<b>Title</b>	<b>Email</b>	<b>Phone</b>
	Project Champion					
	Customer (Project Initiator)					
	Contractor					
<b>Project Identification &amp; Characteristics</b>	<b>Project Identification</b>			<b>Project Characteristics</b>		
	Task/Purchase Order #			List of Sites in Project (separated by commas)		
	Contract #			Number of Buildings in Project		
	Project Name			List of Buildings in Project (separated by comma if more than one)		
	Primary Project Location-City			Market Segment		
	Primary Project Location-State			Total Floor Area Affected by Project (Square Feet)		
	Primary Project Location-Zipcode			Average Annual Energy Consumption of Affected Buildings (MMBtu/yr)		
	Agency Name			Implementation Period (months)		
	Sub Agency Name/Region					
	Project ID #					
<b>Award Date</b>						
	Project Award Date (mm/dd/yyyy)					
<b>Other Information</b>	<b>Project Financial Summary</b>					
	Federal Contract Type			Annual Estimated Energy Savings (MMBtu)		
	Primary Electric Utility			Annual Estimated Water Savings (kGal)		
	Primary Natural Gas Utility			Total Estimated Cost Savings		
			<b>Template Errors/Warnings</b>			
<b>ADDITIONAL NOTES:</b>						
0710020						
3.0.15.n						





**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+e1+e2)	g = (b1+c1+d1+e1+e2) * b	h	i	j	k	l = g*(1+j)	m	n = m/l
ECM Number	Short Description	MEV Option	Baseline electricity use (kWh/yr)	Baseline electricity demand (kW/mo)	Baseline natural gas use (MMBtu/yr)	Baseline Use 1: Other (MMBtu/yr)	Baseline Use 2: Other (MMBtu/yr)	Baseline water use (kGal/yr)	Baseline energy and resource costs (\$/yr)	Baseline O&M costs (\$/yr)	Baseline other non-energy costs (\$/yr)	Type of other non-energy costs	Electric energy savings (kWh/yr)	Electric energy savings (\$/yr)	Electric demand savings (kW/mo)	Electric demand savings (\$/yr)	Natural gas savings (MMBtu/yr)	Natural gas savings (\$/yr)	Other Savings Type 1: Other (MMBtu/yr)	Other Savings Type 1: Other (\$/yr)	Other Savings Type 2: Other (MMBtu/yr)	Other Savings Type 2: Other (\$/yr)	Total energy savings (MMBtu/yr)	Total energy cost savings (\$/yr)	Water savings (kgal/yr)	Water savings (\$/yr)	O&M cost savings (\$/yr)	Other non-energy cost savings (\$/yr)	Estimated annual cost savings (\$/yr)	Implementation price (\$)	Simple Payback (years)				
<b>TOTALS:</b>			0	0	0	0	0	0	50	50	50		0	50	0	50	0	50	0	50	0	50	0	50	0	0	50	50	50	50	50	50			

**IMPORTANT INFORMATION:**  
 (1) Energy conversion factors for MMBtu: MMBtu=1,000,000 Btu; 1 kWh of Electricity=0.003413 MMBtu; 1 therm of Natural Gas=0.1 MMBtu; 1 gal of #2 Heating Oil=0.13869 MMBtu; 1 gal of Gasoline=0.12048 MMBtu; 1 gal of Diesel=0.13728 MMBtu; 1 short ton of Coal (2,000 pounds)=19.546 MMBtu; 1 gal of Propane=0.091323 MMBtu.  
 (2) User should enter an average monthly kW reduction figure. Demand savings can (and usually do) vary by season and in their conversion rate to dollar savings.

**ADDITIONAL NOTES:**

07/30/20  
3.0.15A

# M&V Template

## ESPC Projects

ANNUAL PERFORMANCE PERIOD M&V BASIC PROJECT INFORMATION					
<b>Project Contact Information</b>	<b>Role:</b>	<b>Institution:</b>	<b>Name:</b>	<b>Email:</b>	<b>Phone:</b>
	ESCO M&V Specialist				
	Other M&V Contact				
	Third Party Verifier				
<b>Project Identification &amp; Key Dates</b>	<b>Project Identification</b>				
	Project ID#				
	ePB ID#				
	Project Name				
	<b>Key Dates</b>				
	Performance Year				
	M&V Report Date*				
	Project Acceptance Date				
	M&V Report Reviewed Date				
	M&V Report Approval Date				
M&V Annual Report Due Date					
Third Party Verification Report Date					
<b>IMPORTANT INFORMATION:</b>					
"Project ID#," "ePB ID#," and "Project Name" information must be gathered from the ePB proposal information.					
<b>ADDITIONAL NOTES:</b>					
Version 3.1.1					
epbamv09282020					

ANNUAL PERFORMANCE PERIOD M&V ANNUAL VERIFIED (EXPECTED) SAVINGS BY ENERGY CONSERVATION MEASURE																				
ECM			Details of Verified (Expected) Energy and Cost Savings																	
ECM Number	Short Description	First Year M&V Option	b1n	b2n	c1n	c2n	d1n	d2n	e1an	e2an	e1bn	e2bn	In = 0.003413*b1n+d1n+e1a	gn = b2n+c2n+d2n+e2an+e	hn	in	jn	kn	In = gn+in+jn+kn	
			Electric energy savings (kWh/yr)	Electric energy savings (\$/yr)	Electric demand savings (kW/mo)	Electric demand savings (\$/yr)	Natural gas savings (MMBtu/yr)	Natural gas savings (\$/yr)	Other Savings Type 1: Other (MMBtu/yr)	Other Savings Type 1: Other (\$/yr)	Other Savings Type 2: Other (MMBtu/yr)	Other Savings Type 2: Other (\$/yr)	Total energy savings (MMBtu/yr)	Total energy cost savings (\$/yr)	Water savings (Kgal/yr)	Water savings (\$/yr)	O&M cost savings (\$/yr)	Other non-energy cost savings (\$/yr)	Verified annual cost savings (\$/yr)	
<b>TOTALS:</b>			-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	-	\$0	\$0	\$0	\$0	\$0
<b>IMPORTANT INFORMATION:</b>																				
(1) Energy conversion factors for MMBtu: MMBtu=106 Btu; Electricity — 0.003413 MMBtu/kWh; Natural Gas — 0.1 MMBtu/therm; #2 Heating Oil — 0.13859 MMBtu/gal; Gasoline — 0.12048 MMBtu/gal; Diesel — 0.13738 MMBtu/gal; Coal—19.548 MMBtu/short ton (2,000 pounds); Propane—0.091333 MMBtu/gal																				
(2) Demand savings (kW/mo) represent an average monthly kW reduction figure. Demand savings can (and usually do) vary by season and in their conversion rate to dollar savings.																				
(3) For the post-installation report, please enter expected year one savings values. For the annual report, please enter verified annual savings values.																				
<b>ADDITIONAL NOTES:</b>																				
Version 3.1.1																				
epbamv09282020																				



**ANNUAL PERFORMANCE PERIOD M&V  
DETAIL OF COST SAVINGS IMPACT DUE TO PERFORMANCE AND O&M ISSUES**



ECM Number	Impact to Energy Savings (MMBtu)	Impact to Cost Savings (\$)	ECM Location	Total Lost Cost Savings Due to Agency (\$)	Total Lost Cost Savings Due to ESCO (\$)	Cause for Cost Savings Impact Due to Agency	Cause for Cost Savings Impact Due to ESCO
<b>TOTALS:</b>							

**IMPORTANT INFORMATION:**  
 (1) Note that ESCOs generally guarantee only some percentage of their estimated savings, such that a failure to achieve the full estimate on an ECM may not represent a shortfall on the guarantee. Moreover, it is common for ESCOs' guarantees to exclusively cover the project as a whole, such that a shortfall on one or two ECMs may be counter-balanced by over-achievement of savings on other ECMs, keeping the guarantee intact.  
 (2) All the ECM lost cost savings may not add up to the total shown at the bottom of the table due to errors in data.

**ADDITIONAL NOTES:**

Version 3.1.1  
 epbamv09282020

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**ENERGY**

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