



eProjectBuilder

User Guide for eProjectBuilder M&V Module

U.S. DEPARTMENT OF
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Energy Efficiency &
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1 Overview

The Measurement and Verification (M&V) module allows eProject Builder (ePB) users to enter, review and approve annual M&V data and post-installation verification data (year zero). Additionally, users can output annual and cumulative M&V reports for their projects. Note that the M&V Module is referred to as the "Performance Assurance" module for utility energy service contract (UESC) projects, though the functionality is identical.

Before you can enter M&V data:




- **A project typically is in "Approved" status in ePB before M&V data can be added.** This means a project must have had its final proposal information entered, submitted and approved before the M&V module will become available for that project. However, projects that were approved but have since been unlocked and are in "Pending" or "Pre-approval" status also link to the M&V module.

Roles:

- **Project Builders (PBs)** (typically ESCOs or other types of energy project implementers, or utilities in the case of UESC projects) are responsible for entering and submitting annual M&V data.
- **Project Initiators (PIs)** (typically the customer-side contracting officer or project manager) are responsible for reviewing M&V data and approving it, which commits it to the database and enables the newly added data to be included in M&V reports.

2 Methods for Entering and Submitting M&V Data

M&V data can be entered into ePB in three different ways as indicated in the box below. This guide demonstrates how ePB users can successfully enter M&V data using each method.

<p>Enter M&V data for individual performance years via the Single Year M&V Upload Template</p>	<p> Recommended for users who wish to add M&V data for one or two project performance years, and who would benefit from circulating a data template to relevant parties to collect M&V information.</p>
<p>Enter M&V data for individual performance years through the user interface</p>	<p> Recommended for users who wish to add M&V data for one or two project performance years, and who have all of the relevant M&V information at their disposal.</p>
<p>Enter data for multiple M&V performance years via the Multi-Year M&V Upload Template</p>	<p> Recommended for users who wish to add multiple years of M&V data for a single project.</p>

3 Entering M&V Data through the Single-Year M&V Upload Template

Users may choose to enter a single year of M&V data by using the single-year M&V Upload Template. This method may be particularly useful for users who need to collect M&V data from multiple individuals in their organization, as the template file can be passed around (as opposed to having a single user enter all of the data in the user interface within a single login session).

3.1 Process Overview

1. Log into eprojectbuilder@lbl.gov, navigate to the Portfolio page, and click on the name of a project (in "Approved" status) to navigate to the Dashboard.



2. From the project dashboard, click the "+ M&V data" button or click "M&V" on the sidebar to go to the M&V summary page.



3. Click the "Download M&V Upload Template" button. Click the "Single-Year M&V Upload Template" button on the pop up window. This will prompt the download of the single-year M&V download template specific to the project.



4. Complete the required fields, as well as any desired M&V fields.



6. From the M&V Summary Page, select "Upload M&V Data from Template".



7. Choose the appropriate .xlsx file from the user's hard drive and select "Upload".



8. From the Project Dashboard, Project Initiators (e.g., customers) click "View/Approve M&V data." If M&V data needs to be edited, Project Initiators can "unlock" it for the Project Builder.

3.2 Populating the Single-Year M&V Upload Template

The single-year M&V upload template is pre-populated with a unique identifier (Project ID #) for each project. Thus, users must download the template for each project from the M&V module of the project they plan to enter data for (as the templates are not interchangeable). Additionally, project contact information, as well as energy conservation measure (ECM) information is prepopulated. This prepopulated data cannot be edited. The single-year M&V Upload Template has three tabs containing M&V data fields:

- **Summary:** Contains project contact information and key project characteristics. This tab also contains the two required fields: (1) Performance Year, and (2) M&V Report Submitted Date. Users must complete these fields in order to upload the data template.
- **Verified Savings:** Contains pre-populated ECM information, and fields for users to indicate adjusted baseline energy and non-energy consumption, as well as verified energy and cost savings by resource type.
- **Cost Savings Impacts:** Contains fields for users to report impacts to energy and cost savings (as well as the cause and the responsible party).

Once completing all relevant fields (including the two required fields), the template is ready to be uploaded into the system (see steps 6 and 7 above). Upon successful upload, the desired performance year will appear in the M&V module, and the data as entered in the template will be ingested into the M&V module. The Project Builder can then submit the M&V year for Project Initiator approval.

- 🔍 Note that users can overwrite the data for an existing M&V year so long as that M&V year is in "Pending" status (meaning it has not yet been submitted by the Project Builder). Uploading the M&V template to an existing M&V year in "Pending" status will replace any data in that M&V year with the data in the uploaded template.
- 🔍 To make any changes to an M&V year that is already in "approved" status, contact the Project Initiator and request that they unlock the M&V year. Once the M&V year is unlocked, the Project Builder may edit or upload replacement data.

3.3 *Uploading the Single-Year M&V Upload Template*

IMPORTANT! Before uploading your Single-Year M&V Upload Template, please be sure you have adhered to the following:

- The Single-Year M&V Upload Template is saved as a .xlsx, rather than .csv (or other) format
- Ensure no changes have been made (content or formatting) to the column headers
- The two required fields (Performance Year and M&V Report Submitted Date) have been populated.

Once the Single-Year M&V Data Upload template has been populated, click the blue "Upload" button. Choose the appropriate .xlsx file saved on your computer and click "Upload."

3.4 *Editing Uploaded M&V Data*

If the data uploaded via the M&V Data Template needs to be revised before the PB submits the M&V year for review, the PB may manually edit the existing the data in the online user interface. Please see section 4.2, below, for instructions on how to do so.

4 *Entering M&V Data Manually in the Online User Interface*

Users may also choose to enter—or edit—a single year of M&V data by manually entering data directly in the online user interface.

4.1 Process Overview

1. Log into eprojectbuilder@lbl.gov, navigate to the Portfolio page, and choose a project to navigate to the Project Dashboard.



2. From the Project Dashboard, the Project Builder (PB) clicks "+ M&V data" on the 'Next Steps' box or clicks "M&V" (or "Performance Assurance") on the left-hand sidebar to navigate to the M&V summary page. Click the "+ Performance Year" button to add a new performance year.



4. The PB navigates through the various tabs with project-level and ECM-level fields to add key data from the M&V report. See the list of fields at end of this guide.



5. When data is complete, the PB navigates to the Submit step to submit the data for that year for Project Initiator (PI) review. The performance year status will change to "Pre-approval" and the M&V data will no longer be editable.



6. The PI then reviews the annual report under the Action icon on the M&V summary page, and clicks the relevant year to navigate to the approval step, where the M&V year can be approved.



7. If previously submitted or approved M&V data needs to be edited for a performance year, the PI can unlock it, changing the status back to "Pending" so the PB can edit.

4.2 Entering M&V Data

The M&V Summary page displays a row for each contract year that the PB has initiated (see Figure 1).


M&V Summary					
+ Performance Year Download M&V Upload Template Upload M&V Data from Template Cumulative Report					
Action	Performance Year ↑	M&V Report Due Date	M&V Report Submitted Date	M&V Report Approved Date	Status
⋮	1	2019-12-31	2019-12-18	2019-12-25	Approved
⋮	2	2020-12-31	2020-12-20	2020-12-31	Pending


Figure 1. M&V Summary Page

To create a new contract performance year, click the "+ Performance Year" button, select the desired year from the dropdown list of performance years, and click "Add." The year will now appear on the M&V summary page and will be in pending status. You may add or edit data for any performance year that is in Pending status. To add or edit data:

1. Click the three dots under the "Action" column, and click "Edit."

2. Enter the relevant information in the online data fields. The data fall under one of two categories: Project-level data, and ECM-level data. The sub-categories for each of these data types include:
 - **Project-level data**
 - Identification & Characteristics
 - Adjusted Baseline
 - Verified Savings
 - Key Dates
 - Cost Savings Impacts
 - **ECM-level data**
 - Characteristics
 - Adjusted Baseline
 - Verified Savings
 - Cost Savings Impacts
3. Navigate through each section, completing the relevant data fields as you go (see Figure 2). For a complete list of M&V data fields, see the Appendix at the end of this Guide.

 **IMPORTANT!** If your project did not require a post-installation report, and does not have M&V data for performance year 0, leave it blank.

 The **only required field** in the M&V module is the M&V report submitted date.

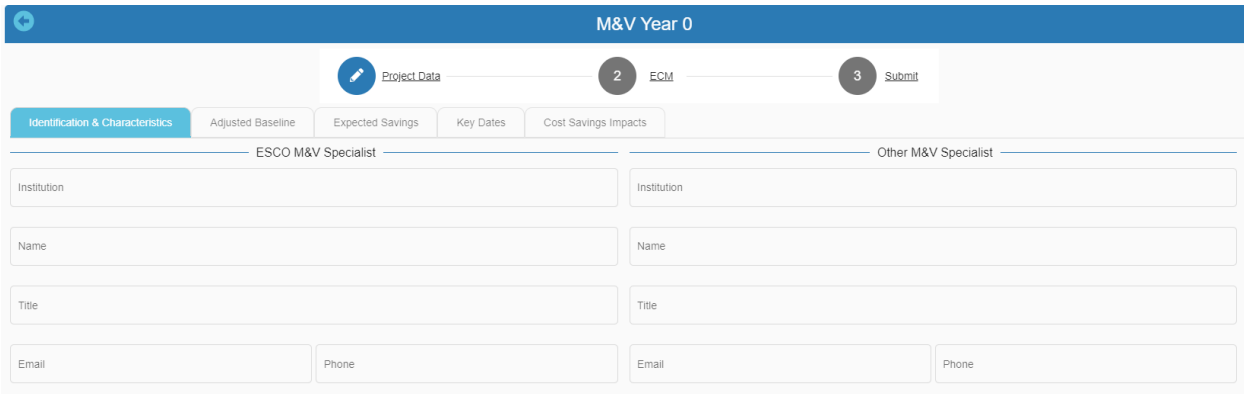
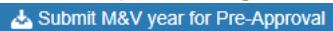



Figure 2. M&V Data Fields

4. Once data entry for the performance year is complete, navigate to the Submit page (indicated by a circle with a number 3) and click the  button. The status for the year will change to "Pre-approval."

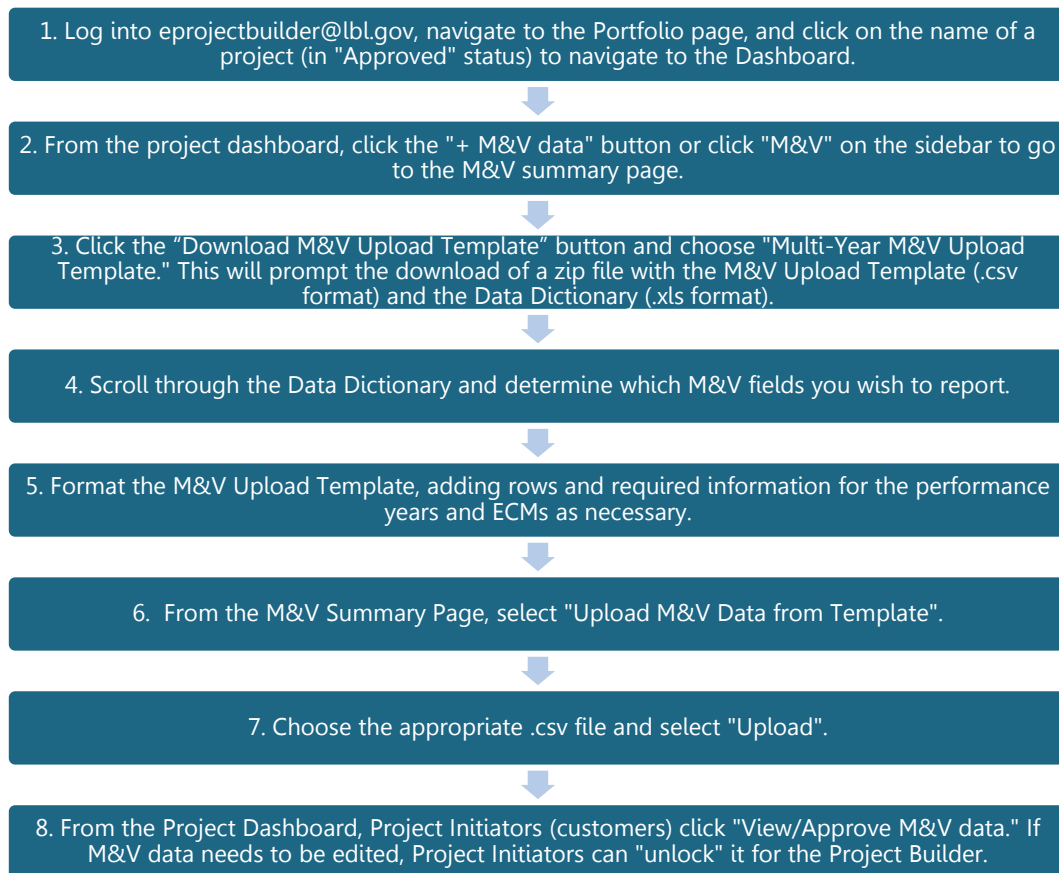
 **IMPORTANT!** Once M&V data has been submitted it will no longer be available for editing unless the customer/PI unlocks it. See Section 6 of this guide for further instruction on how to unlock M&V data for editing.

5 Entering M&V Data through the Multi-Year M&V Upload Template

Users that have multiple years of M&V data for a project may find it more efficient to enter data using the multi-year M&V Upload Template. The multi-year M&V Upload Template and associated Data Dictionary enable users to enter M&V data at the project or ECM level for multiple project performance years and ECMs and upload them all at once, rather than entering data for each performance year manually through the user interface. The process for uploading data using the M&V Upload Template may look complex at first. However, it is straightforward once users take the time to understand the process, and it may save time in the long run.

To get started using the multi-year M&V Upload Template, from the M&V Summary page, click "Download M&V Upload template" and choose "Multi-Year M&V Upload Template." This will prompt the download of a zip file that contains the M&V Upload Template (.csv format) and the Data Dictionary (.xlsx format).

5.1 Process Overview



5.2 Data Dictionary

The Data Dictionary contains an exhaustive list of M&V fields that users can report in ePB through the M&V feature. The Data Dictionary contains key information users need to complete in order to



successfully populate the M&V Upload Template (in particular the ePB Database Field Name and ECM Number). After downloading the Data Dictionary, users should scroll through it and determine which M&V fields they wish to report. Note that the M&V fields are different depending on whether a user plans to report M&V data at the project level or ECM level. Be sure to choose M&V fields that are appropriate for the level at which you will report data. The Data Dictionary includes the following information by column:

- **Field Name:** The M&V field name.
- **Description:** The description of the associated M&V field.
- **DB Field Name:** The ePB Database field name associated with a particular M&V field. This field name will be used to map values entered in the M&V Upload Template into the ePB M&V system.
- **Data Type:** The required format of the data to be entered in the “value” column of the M&V Upload Template (e.g. text, numeric, date format, etc.).
- **Level:** Indicates whether the associated field name is for project-level or ECM-level M&V data. The available field names are different depending on whether M&V data will be reported at the project versus ECM-level. Use Excel’s “Filter” function on the “Level of Information” column in the ePB Data Dictionary to filter for the appropriate M&V fields.
- **Sub-Level:** The category of information for a particular M&V field (e.g. savings, baseline).
- **Accreditation Requirement:** Indicates whether the field is required for NAESCO Accreditation.

The Data Dictionary is a .csv file as shown in Figure 3 below.¹

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Project Acceptance Date	Indicate date project implementation was	AcceptDate	Date (mm/dd/yyyy)	Project	Key Dates	Yes
Award Date	Indicate date project contract was signed/project was awarded. Denotes	AwardDate	Date (mm/dd/yyyy)	Project	Key Dates	Yes

Figure 3. Data Dictionary File

-  Use the Excel “Filter” function to more easily navigate the Data Dictionary to find fields pertinent to your project, e.g., by M&V field category, project versus ECM level fields, and more.
-  The Appendix at the end of this guide contains an exhaustive list of the M&V fields contained in the Data Dictionary.

5.3 Multi-Year M&V Upload Template

The Multi-Year M&V Upload Template is automatically pre-populated with key ECM-level data from the user’s project. Upon downloading the template, users will find each ECM of the project represented as a single row (thus the template will contain the same number of rows as there are project ECMs). If you wish

¹ **Accreditation Requirement:** Indicates which M&V fields are required for ePB users who wish to apply for NAESCO Accreditation (see the NAESCO Accreditation Guide for more information).

to report M&V data at the project level only, do not complete these rows (or you can delete them), and instead add rows for the relevant project-level data fields.

The template contains nine columns. Five of these columns will be pre-populated with existing ECM-level project data. The pre-populated column fields are as follows:

- **ePB ID:** The associated ePB ID for the project (this value will be the same for all rows)
- **Project Name:** The associated project name (this value will be the same for all rows)
- **ePB ECM ID:** The associated ECM ePB ID (this ID number is automatically assigned by ePB)
- **ECM Technology Category:** The ECM Technology Category associated with the ECM (leave blank if reporting M&V data at the project level).
- **ECM Number:** The user-entered ECM Number (this will only be pre-populated if users chose to assign ECM Numbers when initially entering project data)

Users enter data for the project-level or ECM-level fields for the other four columns:

- **Performance Year:** Indicates the year of the performance period that is being reported.
- **Field Name:** The field name for the M&V field (from the Data Dictionary) to be included in the M&V template.
- **ePB Database Field Name:** The column in which users copy and paste the DB Field Name (from the Data Dictionary) associated with a particular M&V field they wish to report.
- **Value:** The verified value for the parameter/measure to be included in the M&V Upload template.

The diagram shows a table with 9 columns. The first five columns are labeled 'Pre-populated fields' and the last four are 'Fields users enter data for'. The table contains two rows of data. An arrow points to the first row with the text 'This project has 2 associated ECMs, so there are two rows.'.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1				
52329	M&V Example Project	14744	Lighting Improvements	2				

Figure 4. M&V Upload Template - Pre-populated vs. User-entered fields

5.4 Populating the Multi-Year M&V Upload Template

Table 1 below indicates which fields are required for uploading M&V data, both at the project level and at the ECM-level. Required fields are indicated by a check mark. Requirements for the M&V Upload Template are slightly different depending on whether M&V data is being reported at the project or ECM level. However, the additional fields required for uploading ECM-level data are pre-populated in the template. Regardless of whether a user enters project-level or ECM-level data, the performance year, ePB database field name, and value are all fields that must be populated in the template by the user.

Table 1. Required Fields for M&V Upload

Field	Project Level Data	ECM Level Data
ePB ID	✓ (Pre-populated)	✓ (Pre-populated)
Project Name	✓ (Pre-populated)	✓ (Pre-populated)

ePB ECM ID	--	✓ (Pre-populated)
ECM Technology Category	--	✓ (Pre-populated)
ECM Number	--	(Pre-populated)
M&V Performance Year	✓ (User entered)	✓ (User entered)
Field Name	(User entered)	(User entered)
ePB Database Field Name	✓ (User entered)	✓ (User entered)
Value	✓ (User entered)	✓ (User entered)

IMPORTANT! Note that both ECM-level and Project-level M&V data can be uploaded together using the same spreadsheet. Sections 4.5 and 4.6 below explain them separately only because the process is slightly different for ECM vs. project-level data. Section 4.7, however provides an example in which both ECM and project-level M&V data is included on one Multi-Year M&V Upload Template.

5.5 *Populating the Multi-Year M&V Upload Template with Project-Level Data*

Steps 1 through 7 below outline the process for populating the Multi-Year M&V Upload Template with project-level M&V data. (Populating ECM-level data also requires users to follow steps 1 through 7, plus additional steps 8 through 10).

1. **Select M&V data fields:** Review the Data Dictionary and note the fields for which you plan to submit M&V data. Make note of how many different M&V data fields you plan to report.
2. **Review pre-populated information:** Open the template and review the pre-populated project information; make sure this is the project you want to add M&V data to. A project with two ECMs will look similar to Figure 5 below.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1				
52329	M&V Example Project	14744	Lighting Improvements	2				

Figure 5. Pre-populated Multi-Year M&V Upload template

3. **Prepare the template for project-level M&V data:** The first few rows of your project’s Multi-Year M&V Upload Template are automatically pre-populated with ECM-level data from your project—one row for each ECM. If uploading only project-level M&V results, the pre-populated ECM-level data contents must be deleted. If not done, the template will be rejected upon uploading.


 **IMPORTANT!** Note that you cannot delete or change the column headings themselves. If you delete or change the column headings, the template will be rejected upon uploading.

Figure 6 below shows how to do this step properly. Delete pre-populated data from the ePB ECM ID, ECM Technology Category, and ECM Number columns (the third, fourth, and fifth columns from the left in the template), while leaving the column headers intact.

Be sure to KEEP the ECM-level column headers

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1				
52329	M&V Example Project	14744	Lighting Improvements	2				

Delete the ECM-level pre-populated data shaded in blue

Figure 6. Clearing Pre-populated ECM Level Fields in the M&V Upload Template

- Add M&V performance year:** Once the pre-populated ECM-level data has been cleared out, specify the M&V performance year(s) for which you are entering data. In this example, we plan to enter data for year one only. In the first row (below the header row) enter the number “1” in the “M&V Performance Year” column. If beginning at a later performance year, enter that number. Each performance year will need as many rows as the number of M&V data fields you plan to report for that year. For example, suppose one wishes to report the following three M&V data fields for year 1 only (field names have been pulled from the Data Dictionary).
 - Year N-Adjusted Baseline Electricity usage for the project (kWh)
 - Year N-Verified (Expected) annual electricity savings for the project (kWh)
 - Year N-Verified (Expected) annual electricity cost savings for the project (\$)

Because we are only entering data for one M&V performance year for three M&V data fields, we need 3 x 1 → 3 total rows (see Figure 8).

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project				1			
52329	M&V Example Project				1			
52329	M&V Example Project				1			

Ensure the pre-populated ePB ID and Project Name fields are present for each M&V performance year row.

In order to report 3 different M&V fields for this project, add 3 rows for M&V Performance Year 1.

Figure 7. Entering M&V Performance Year in the Multi-Year M&V Upload Template

- Enter the selected M&V data field names: Use the Data Dictionary to identify the M&V fields you wish to report. Use the filter on the “level” column in the Data Dictionary to ensure that the fields you have selected are project-level fields (see Figure 3). Find the corresponding ePB Database Field Name (under the “ePB Database Field Name” column). This field is required in order for the Multi-Year M&V Upload Template to upload successfully. Copy it exactly as it is reported in the Data Dictionary and paste it into the “ePB Database Field Name” column in the M&V Upload Template. Be certain that there are no extra spaces or misspellings. **IMPORTANT!** Capitalization must be consistent with the Data Dictionary.

Optional: Copy and paste the Field Name from the Data Dictionary into the relevant “Field Name” column in the M&V Upload template. Completing the Field Name information is **optional** (because the data upload gets the field name from the ePB Database Field Name column), but is recommended for user readability for final review of the template before uploading. Figure 8 below demonstrates how to enter the Field Name and ePB Database Field Name for the M&V data fields identified for inclusion in Step 4.

The associated ePB Database Field Name has been copied & pasted exactly as it reads in the Data Dictionary.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project				1	Year N-Adjusted Baseline Electricity usage for the project(kWh)	RptProjBaselineElecKWh	
52329	M&V Example Project				1	Year N-Verified (Expected) annual electricity savings for the project	RptProjElecSavingsKWh	
52329	M&V Example Project				1	Year N-Verified (Expected) annual electricity cost savings for the project	RptProjElecSavingsAmt	

Figure 8. Entering M&V Data Field Names

- Enter M&V Data:** Add the M&V value you wish to report for that particular M&V field in the "Value" column of the template. Be sure to enter the value in the appropriate format (specified in the "Data Type" column of the Data Dictionary). Figure 9 below indicates the range of data type categories for project-level fields. Figure 11 shows a populated example of the value column.

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirements
Project Acceptance Date	Indicate date project implementation was accepted. Denotes beginning of performance period (mm/dd/yyyy).	AcceptDate	Date (mm/dd/yyyy)	Project	Key Dates	Required for NAESCO
cost-savings for all performance years to date for all ECMs	Cumulative cost savings lost due to Agency's impact on a project	CummProjLostCostAmtAgency	Integer (Dollars)	Project	Lost Cost Savings	
energy savings for all performance years to date for all ECMs attributable to the agency	Cumulative energy savings lost due to Agency's impact on a project	CummProjLostEngyAgency	Numeric	Project	Lost Cost Savings	
M&V Annual Report Due Date	Due date (mm/dd/yyyy) for each year's annual M&V report	MVAnnRptDD	Text: (100 char max)	Project	Contacts	
Notes	User text	Ppnotes	Text	Project	Key Dates	
Third Party Verified (y/n)	Indicate if the M&V report is verified by a third party	ThrdPartyVrfy	Boolean	Project	Contacts	

Figure 9. Data Dictionary

Values have been added and no formatting applied

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project				1	Year N-Adjusted Baseline Electricity usage for the project(kWh)	RptProjBaselineElecKWh	1073161
52329	M&V Example Project				1	Year N-Verified (Expected) annual electricity savings for the project	RptProjElecSavingsKWh	845009
52329	M&V Example Project				1	Year N-Verified (Expected) annual electricity cost savings for the project	RptProjElecSavingsAmt	42250

Figure 10. Enter M&V Data

IMPORTANT! Do not apply any supplemental formatting (e.g. commas, dollar signs, to the values). If you do so, the upload will not be successful. Additionally, be sure to enter the appropriate value for the specified units (e.g., kWh, MMBtu, etc.) in order to avoid unit conversion errors. M&V data is entered in Figure 10 below.

7. Repeat steps 4 through 7 for as many M&V Performance Years for which you wish to report M&V data.

5.6 Populating the Multi-Year M&V Upload Template with ECM-Level Data

The process of reporting ECM-level M&V data is *very* similar to reporting project-level M&V data as described in section 4.5 above. The key differences in the process include:

- Do **not** clear the pre-populated ECM-level data in the ECM ID, ECM Technology Category, and ECM Number columns (the third, fourth, and fifth columns from the left in the template), as is described in step 3 above.
- Select ECM-level, rather than Project-level M&V data fields for reporting from the Data Dictionary by filtering for "ECM" in the "Level" column.
- Rather than needing just one row per M&V data field and performance year as is required for the project level, users must include one row per M&V data field for each performance year *and* for each ECM for which they are reporting the data. Additionally, if users plan to enter data for multiple M&V data fields [e.g., verified electricity savings (kWh), verified electricity cost savings (\$), verified natural gas savings (MMBtu)], each of these fields will require their own rows for each ECM and M&V performance year. Step 8 below demonstrates how to determine the correct number of rows for your template.

To report ECM-level M&V data, upon downloading the Multi-Year M&V Upload Template, complete steps 1 (Select M&V data fields) and 2 (Review pre-populated information) as explained in Section 4.5 above. In this example, the following two ECM-level M&V data fields have been selected:

- Year N-Adjusted Baseline Electricity usage for the measure (kWh)
- Annual Reported Total avoided costs for the year for a measure (\$)

Steps 8 and 9 below demonstrate how to build off of the template to report ECM-level M&V data. Like in Step 2 above, the pre-populated template for a project with 2 ECMs will be formatted as shown in Figure 11.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1				
52329	M&V Example Project	14744	Lighting Improvements	2				

Figure 11. Pre-Populated M&V Upload Template

8. **Prepare the template for ECM-level M&V data:** The first few rows of your project's M&V Upload Template are automatically pre-populated with ECM-level data from your project; one row for each ECM. Copy and paste the data from the ePB ECM ID and ECM Technology Category columns (in the M&V Upload template) in the successive rows as appropriate.

To determine how many rows are needed, multiply the number of ECMs, the number of M&V Performance Years, and the number of M&V fields for which you wish to report data. For example, with the project above, which has 2 ECMs, if I have selected two ECM M&V data fields I plan to report for 2 M&V performance years, the total number of rows required = 2 x 2 x 2 → 8.

Copy and paste the pre-populated information in the template (columns 1 through 4) so that there are 8 rows total (see Figure 12). The order the data is presented is left up to the user’s discretion—e.g., one could first report all data for all performance years for a particular ECM, and then do the same for the next. In this example, all data is reported for M&V performance year 1, and then reported for performance year 2.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1			
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1			
52329	M&V Example Project	14745	Lighting Improvements	2	1			
52329	M&V Example Project	14745	Lighting Improvements	2	1			
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2			
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2			
52329	M&V Example Project	14745	Lighting Improvements	2	2			
52329	M&V Example Project	14745	Lighting Improvements	2	2			

Relevant pre-populated fields have been dragged down into the 8 rows needed (we are reporting 2 M&V Fields for 2 performance years and 2 ECMs).

Chose to report year 1 M&V data for all ECMs and M&V data fields, followed by year 2 M&V data for all ECMs and M&V data fields. Users can choose the order in which they would like to report data.

Figure 12. Preparing the template for ECM-level M&V data

9. **Enter the selected M&V data field names:** Use the Data Dictionary to identify the M&V fields you wish to report. Filter the “level” column in the Data Dictionary to ensure that the fields you have selected are ECM-level fields (see Figure 3). Find the corresponding ePB Database Field Name (under the “ePB Database Field Name” column). This field is required in order for the M&V Upload Template to upload successfully. Copy it **exactly** as it is reported in the Data Dictionary and paste it into the “ePB Database Field Name” column in the M&V Upload Template. Be certain that there are no extra spaces or misspellings. **IMPORTANT! Capitalization must be consistent with the Data Dictionary.**

Optional: Copy and paste the Field Name from the Data Dictionary into the relevant “Field Name” column in the M&V Upload template. Completing the Field Name information is optional (because the data upload gets the field name from the ePB Database Field Name column), but is recommended for user readability for final review of the template before uploading.

Error! Reference source not found. below indicates how to enter ECM-level M&V data for the same project as shown in section 4.5 above (ePB ID 52329, Project Name “M&V Example Project”). The example project has two ECMs—Chiller Plant Improvements and Lighting Improvements.

Populating the "Field Name" column is optional

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	
52329	M&V Example Project	14745	Lighting Improvements	2	1	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	
52329	M&V Example Project	14745	Lighting Improvements	2	1	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	
52329	M&V Example Project	14745	Lighting Improvements	2	2	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	
52329	M&V Example Project	14745	Lighting Improvements	2	2	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	

The appropriate ePB Database Field Names for ECM-level data have been populated in the template

Figure 13. Entering ECM-level M&V fields


10. Enter M&V Data: Add the M&V value you wish to report for that particular M&V field in the "Value" column of the template. Be sure to enter the value in the appropriate format (specified in the "Data Type" column of the Data Dictionary).

IMPORTANT! Do not apply any supplemental formatting (e.g., commas, dollar signs) to the values, and do not change your template from .csv to any other file type. If you do so, the upload will not be successful. Additionally, be sure to enter the appropriate value for the specified units (e.g., kWh, MMBtu, etc.) in order to avoid unit conversion errors. M&V data is entered in Figure 14 below.

Values have been added and no formatting has been applied

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	152000
52329	M&V Example Project	14744	Chiller Plant Improvements	1	1	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	4895
52329	M&V Example Project	14745	Lighting Improvements	2	1	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	22786
52329	M&V Example Project	14745	Lighting Improvements	2	1	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	2194
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	142000
52329	M&V Example Project	14744	Chiller Plant Improvements	1	2	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	5140
52329	M&V Example Project	14745	Lighting Improvements	2	2	Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	20998
52329	M&V Example Project	14745	Lighting Improvements	2	2	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	2385

Figure 14. Entering ECM-level M&V data

 Note that while these ECM M&V fields are reporting the same type of information as is reported for project-level M&V fields in section 4.5 (energy savings and energy cost savings), the "ePB Field" and "ePB Database Field Name" entries are different.

5.7 Populating the Multi-Year M&V Upload Template with Project-Level AND ECM-Level M&V Data

As mentioned previously, multiple years of both project-level and ECM-level M&V data can be uploaded together on a single template. If you plan to upload both project-level and ECM-level data simultaneously, it is recommended users first populate the ECM-level data to avoid having to manually type in the (pre-populated) ECM-level data. Figure 15 below shows the fields from section 4.5 and 4.6 combined into one template, ready to be uploaded. Note that the ECM-level data fields have been cleared out for the project-level M&V data, but have been maintained for the ECM-level M&V data.

ePB ID	Project Name	ePB ECM ID	ECM Technology Category	ECM Number	M&V Performance Year	Field Name	ePB Database Field Name	Value
52329	M&V Example Project	14744	Chiller Plant Improvements		1	1 Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	152000
52329	M&V Example Project	14744	Chiller Plant Improvements		1	1 Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	4895
52329	M&V Example Project	14745	Lighting Improvements		2	1 Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	22786
52329	M&V Example Project	14745	Lighting Improvements		2	1 Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	2194
52329	M&V Example Project	14744	Chiller Plant Improvements		1	2 Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	142000
52329	M&V Example Project	14744	Chiller Plant Improvements		1	2 Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	5140
52329	M&V Example Project	14745	Lighting Improvements		2	2 Year N-Adjusted Baseline Electricity usage for the measure(kWh)	RptECMBaselineElecKWh	20998
52329	M&V Example Project	14745	Lighting Improvements		2	2 Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	2385
52329	M&V Example Project					1 Year N-Adjusted Baseline Electricity usage for the project(kWh)	RptProjBaselineElecKWh	1073161
52329	M&V Example Project					1 Year N-Verified (Expected) annual electricity savings for the project	RptProjElecSavingsKWh	845009
52329	M&V Example Project					1 Year N-Verified (Expected) annual electricity cost savings for the pr	RptProjElecSavingsAmt	42250

Figure 15. M&V Upload Template populated with project-level and ECM-level M&V data

5.8 Uploading and Updating the Multi-Year M&V Upload Template

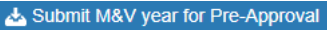
IMPORTANT! Before uploading your Multi-Year M&V Upload Template, please be sure you have adhered to the following:

- The M&V Upload Template is saved as a .csv, rather than an .xls (or other) format
- Ensure no changes have been made (content or formatting) to the column headers
- Data in pre-populated ECM-level columns (ePB ECM ID, ECM Technology Category, and ECM Number) has been deleted for any project-level M&V fields

Once the Multi-Year M&V Data Upload template has been populated, click the blue "Upload" button. Choose the appropriate .csv file saved on your computer and click "Upload."

- 🔍 If upon uploading the M&V Upload Template data, you receive an "error" message indicating certain fields are missing, populate the missing fields in the M&V Upload Template and re-submit.
- 🔍 Save a copy of your formatted M&V Upload Template .csv file to your desktop. You could also save it to the project's dashboard in ePB if you like. This will make updating your project with new M&V data easy.
- 🔍 To add additional years of M&V data as they become available, simply populate the M&V Upload Template with the additional M&V years. You don't need to delete the existing data in your template, because the older data will not be re-ingested into ePB for M&V years that have already been submitted and are in "Pre-approval" or "Approved" status for the performance year.

6 Submitting M&V Data

Once you have finished entering M&V data (whether through one of the M&V upload templates or manually through the user interface), navigate to the Submit page for that M&V year (indicated by a circle with a number 3) and click the  button. The status for the year will change to "Pre-approval."

- 🔍 **IMPORTANT!** Once M&V data has been submitted it will no longer be available for editing unless the customer/PI unlocks it. See Section 6 of this guide for further instruction on how to unlock M&V data for editing.

7 Reviewing and Approving M&V Data

Whether the Project Builder chooses to enter M&V data manually through the user interface, or by using one of the two M&V upload templates, the review and approval process by the Project Initiator is the same.

1. The Project Initiator finds the project they would like to review on the Project Dashboard.
2. Once on the Dashboard, navigate to the M&V module by clicking "M&V" on the sidebar. The M&V summary table will indicate the data entry and submission status for each M&V performance year under the "Status" column. There are three possible statuses for each M&V performance year:
 - **"Pending"** indicates performance years for which the PB has not yet submitted data
 - **"Pre-approval"** indicates the PB has entered data for the performance year and submitted it for PI approval
 - **"Approved"** indicates that the PI has approved the M&V data
3. PIs may view the annual single-year M&V report for years that are in "Pre-approval" or "Approved" status. PBs can review the annual single-year M&V report whether the M&V year is in "Pending," "Pre-approval," or "Approved" status. Access the M&V report by clicking "M&V Report" or "View" under the Actions column. You may view the report in html format online or download it as a pdf file.
4. PIs may approve M&V data for any year that is in "Pre-approval" status. To approve an M&V year, click "View" under the Actions column next to a year in pre-approval status. Navigate through the M&V data tabs to review the information provided by the PB. Navigate to step 3- "Approve" and click "Approve" to commit the M&V year to the ePB database. Once approved, that year will change to "Approved" status on the M&V summary page.

7.1 Unlocking M&V Data

If M&V data needs to be edited, the PI must "unlock" it before the PB can edit. PIs can unlock M&V data for a particular year by navigating to the M&V module for a project and selecting "Unlock M&V" under the Action column for that year.

8 Generating M&V Reports (All Users)

PI, PBs and third-party Project Viewers (PVs) may generate annual and cumulative reports for project data they have access to.

Annual single-year reports are accessed from the M&V Summary page. Note that PIs can only access reports for years that are in Pre-approval or Approved status. PVs can only access reports for years that are in Approved status. To access, click the three dots under the Action column for the desired year and click "M&V Report" (which will open a PDF file) or "View" (which will display the data in the online system).

Cumulative reports can be downloaded by clicking the "Cumulative Report" button above the M&V Summary table.

9 Appendix: List of M&V Fields

*Note that for UESC projects, the terminology will change from "M&V" to "Performance Assurance" (or in some instances, "PA").

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Project Acceptance Date	Indicate date project implementation was accepted. Denotes beginning of performance period (mm/dd/yyyy).	AcceptDate	Date (mm/dd/yyyy)	Project	Key Dates	Yes
M&V Report Date	Indicate date of this annual M & V report submission by the ESCO or other reporting entity (mm/dd/yyyy).	MVActivityDate	Date (mm/dd/yyyy)	Project	Key Dates	
M&V Annual Report Due Date	Due date (mm/dd/yyyy) for each year's annual M&V report	MVAnnRptDD	Text: (100 char max)	Project	Key Dates	
M&V Option	Revised M&V methodology used for the ECM (if needed)	MVoptionRvsd	Text	Project	Key Dates	
Performance Year	Indicate year of the performance period that is being reported	MVPrfmYear	Numeric	Project	Contact Information	
ESCO M&V Specialist-Contact email	M&V Specialist's Email	MVSpcEmail	Text: (100 char max)	Project	Contact Information	
ESCO M&V Specialist-Institution	M&V Specialist's Institution	MVSpcInst	Text: (100 char max)	Project	Contact Information	
ESCO M&V Specialist-Contact name	M&V Specialist's Name	MVSpcName	Text: (100 char max)	Project	Contact Information	
ESCO M&V Specialist-Contact phone	M&V Specialist's Phone	MVSpcPhone	Text: (100 char max)	Project	Contact Information	
ESCO M&V Specialist-Contact title	M&V Specialist Title	MVSpcTitle	Text: (100 char max)	Project	Contact Information	
Agency M&V Witnessed-Date	Date agency witness conducted annual M&V audit (mm/dd/yyyy)	MVWitnessDate	Date (mm/dd/yyyy)	Project	Contact Information	

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Agency M&V Witnessed-Name	First and last name of agency personnel that witnessed the M&V for this year	MVWitnessName	Text	Project	Contact Information	
Other M&V Contact-Contact email	Other M&V Contact-Contact email	OMVEmail	Text: (100 char max)	Project	Contact Information	
Other M&V Contact-Institution	Other M&V Contact-Institution	OMVInst	Text: (100 char max)	Project	Contact Information	
Other M&V Contact-Contact name	Other M&V Contact-Contact name	OMVName	Text: (100 char max)	Project	Contact Information	
Other M&V Contact-Contact phone	Other M&V Contact-Contact phone	OMVPhone	Text: (100 char max)	Project	Contact Information	
Other M&V Contact-Contact title	Other M&V Contact-Contact title	OMVTitle	Text: (100 char max)	Project	Contact Information	
Other energy type 1	Other energy type 1 (from proposal template Escalation Rate Schedule cell E4)	OtherEnergyType1	Text: (100 char max)	Project	Contact Information	
Other energy type 2	Other energy type 2 (from proposal template Escalation Rate Schedule cell E5)	OtherEnergyType2	Text: (100 char max)	Project	Contact Information	
Implementation Period-Total verified energy and resource cost savings	Total verified energy and resource cost savings (\$) for the implementation (construction) period. This field/data can only be filled out for post installation M&V report (Year 0).	PIEnergyResCostSavings	Numeric	Project	Contact Information	
M&V Report Approval Date	Indicate date contracting officer or customer approved M&V report date	PPAppDate	Date (mm/dd/yyyy)	Project	Contact Information	
Performance Period Begin Date	Indicate beginning date for performance period year	PPBegDate	Date (mm/dd/yyyy)	Project	Contact Information	
Performance Period End Date	Indicate end date for performance period year	PPEndDate	Date (mm/dd/yyyy)	Project	Baseline	
Notes	User text	Ppnotes	Text	Project	Baseline	

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
M&V Report Reviewed Date	Indicate date contracting officer or customer reviewed M&V report	PPRevDate	Date (mm/dd/yyyy)	Project	Baseline	
Project-Level: Cumulative verified TOTAL cost savings to date for all performance years to date	Cumulative verified TOTAL cost savings to date for project	RptCumTotCostSavingsAmt	Integer (Dollars)	Project	Baseline	
Project-Level: Cumulative verified energy savings to date for all performance years to date (MMBTU)	Cumulative verified energy savings to date for project	RptCumTotEnergySavings	Numeric	Project	Baseline	
Year N-Verified (Expected) annual avoided O&M cost savings for the measure (\$)	Annual Reported dollar equivalent of avoided O&M costs for the year for a measure (\$)	RptECMAvoidedOMCostAmt	Integer (Dollars)	Project	Baseline	
Year N-Adjusted-Baseline-Electricity demand for the measure (kW/mo)	Annual Reported baseline electric demand (kW/mo) for the measure	RptECMBaselineElecDemandKW	Numeric	Project	Baseline	
Year N-Adjusted Baseline Electricity usage for the measure(kWh)	Annual Reported baseline electricity usage (kWh) for the measure	RptECMBaselineElecKWh	Numeric	Project	Baseline	
Year N-Adjusted-Baseline- Energy and resource costs for the measure (\$)	Annual Reported baseline-resource consumption costs NOT including O&M and other non-energy resource costs (\$) for the measure	RptECMBaselineEnergyRsrcAmt	Integer (Dollars)	Project	Baseline	
Year N-Adjusted-Baseline-Natural gas usage for the measure (MMBtu)	Annual Reported baseline natural gas usage (MMBtu) for the measure	RptECMBaselineNGMMBtu	Numeric	Project	Savings	
Year N-Adjusted-Baseline-Other non-energy costs for the measure (\$)	Annual Reported baseline - other non-energy costs (\$) for the measure	RptECMBaselineNonEnergyCost	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Adjusted-Baseline-O&M costs for the measure (\$)	Annual Reported baseline-O&M costs (\$) for the measure	RptECMBaselineOMCost	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Adjusted-Baseline-Other 1 energy usage for the measure (MMBtu)	Annual Reported baseline - other energy type 1 usage (MMBtu) for the measure	RptECMBaselineOther1EnergyMMBtu	Numeric	Project	Savings	Yes- if applicable

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Year N-Adjusted-Baseline-Other 2 energy usage for the measure(MMBtu)	Annual Reported baseline-other energy type 2 usage (MMBtu) for the measure	RptECMBaselineOther2EnergyMMBtu	Numeric	Project	Savings	Yes- if applicable
Year N-Adjusted-Baseline-Water usage for the measure (kgal)	Annual Reported baseline water usage (kGal) for the measure	RptECMBaselineWaterKgal	Numeric	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual demand cost savings for the measure (\$)	Annual Reported electricity demand reduction dollar savings for the year (\$) for a measure	RptECMElecDemandSavingsAmt	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual electricity demand savings for the measure (kW/mo)	Annual Reported electricity demand reduction for the year (kW/mo) for a measure	RptECMElecDemandSavingsKW	Numeric	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual electricity cost savings for the measure (\$)	Annual Reported electricity-related dollar savings for the year (\$) for a measure	RptECMElecSavingsAmt	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual electricity savings for the measure (kWh)	Annual Reported electricity savings for the year (kWh) for a measure	RptECMElecSavingsKWh	Numeric	Project	Savings	Yes- if applicable
Year N-Lost cost-savings opportunity due to agency impact on ECM (\$)	Yearly cost savings lost due to Agency's impact on a measure	RptECMLostCostAmt	Numeric	Project	Savings	Yes- if applicable
Year N-Lost cost-savings opportunity due to ESCO impact on ECM or equipment failure (\$)	Yearly cost savings lost due to ESCO's impact on a measure	RptECMLostCostAmtESCO	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Cause of reduced savings due to Agency	Agency's cause of lost cost-savings in a year for a measure	RptECMLostCostCauseAgency	Text: (500 char max)	Project	Savings	Yes- if applicable
Year N-Cause of reduced savings due to ESCO	ESCOs Cause of lost cost-savings in a year for a measure	RptECMLostCostCauseESCO	Text: (500 char max)	Project	Savings	Yes- if applicable
Year N-Lost energy-savings opportunity due to ESCO impact on ECM or equipment failure (MMBTu)	Yearly energy savings lost due to ESCO's impact on a measure	RptECMLostEngyESCO	Numeric	Project	Savings	Yes- if applicable
Year N-Lost energy-savings opportunity due to agency impact on ECM (MMBTu)	Yearly energy savings lost due to agency's impact on a measure	RptECMLostEnrg	Numeric	Project	Savings	Yes- if applicable

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Year N-Verified (Expected) annual natural gas cost savings for the measure (\$)	Annual Reported natural gas-related dollar savings for the year (\$) for a measure	RptECMNGSavingsAmt	Integer (Dollars)	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual natural gas savings for the measure (MMBtu)	Annual Reported Natural gas savings for the year (MMBtu) for a measure	RptECMNGSavingsMMBtu	Numeric	Project	Savings	Yes- if applicable
Year N-Verified (Expected) annual other 2 cost savings for the measure (\$)	Annual Reported dollar-related savings of other (2) energy types (\$) for the year for a measure	RptECMOther2EnergySavingsAmt	Integer (Dollars)	ECM	Baseline	
Year N-Verified (Expected) annual other 2 energy savings for the measure (MMBtu)	Annual Reported savings of other (2) energy types (MMBtu) for the year for a measure	RptECMOther2EnergySavingsMMBtu	Numeric	ECM	Baseline	
Year N-Verified (Expected) annual other avoided costs savings for the measure (\$)	Annual Reported dollar equivalent of avoided costs for the year for a measure (\$)	RptECMOtherAvoidedCostAmt	Integer (Dollars)	ECM	Baseline	
ECM-Level: Year N Verified (Expected) TOTAL Energy savings per ECM (MMBtu)	Annual Reported Total avoided energy for the year for a measure (MMBTU)	RptECMTotEnergySavings	Numeric	ECM	Baseline	
ECM-Level: Year N Verified (Expected) TOTAL Cost savings per ECM (\$)	Annual Reported Total avoided costs for the year for a measure (\$)	RptECMTotSavingsAmt	Integer (Dollars)	ECM	Baseline	
Year N-Verified (Expected) annual measure water cost savings (\$)	Annual Reported water-related dollar savings for the year (\$) for a measure	RptECMWaterSavingsAmt	Integer (Dollars)	ECM	Baseline	
Year N-Verified (Expected) annual water savings for the measure (kGal)	Annual Reported water savings for the year for a measure	RptECMWaterSavingsKGal	Numeric	ECM	Baseline	
Year N-Verified (Expected) annual avoided O&M cost savings for the project (\$)	Annual Reported dollar equivalent of avoided O&M costs for the year after for a project (\$)	RptProjAvoidedOMCostAmt	Integer (Dollars)	ECM	Baseline	
Year N-Adjusted-Baseline-Electricity demand for the project (kW/mo)	Annual Reported baseline electric demand (kW/mo) for the project	RptProjBaselineElecDemandKW	Numeric	ECM	Baseline	

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Year N-Adjusted-Baseline-Other non-energy costs for the project (\$)	Annual Reported baseline - other non-energy costs (\$) for the project	RptProjBaselineNonEnergyCost	Integer (Dollars)	ECM	Contact Information	
Year N-Adjusted-Baseline-O&M costs for the project (\$)	Annual Reported baseline-O&M costs (\$) for the project	RptProjBaselineOMCost	Integer (Dollars)	ECM	Contact Information	
Year N-Adjusted-Baseline-Other 1 energy usage for the project (MMBtu)	Annual Reported baseline - other energy type 1 usage (MMBtu) for the project	RptProjBaselineOther1EnergyMMBtu	Numeric	ECM	Savings	
Year N-Adjusted-Baseline-Other 2 energy usage for the project (MMBtu)	Annual Reported baseline - other energy type 2 usage (MMBtu) for the project	RptProjBaselineOther2EnergyMMBtu	Numeric	ECM	Savings	
Year N-Adjusted-Baseline-Water usage for the project (kgal)	Annual Reported baseline water usage (kGal) for the project	RptProjBaselineWaterKgal	Numeric	ECM	Savings	
Year N-Verified (Expected) annual demand cost savings for the project (\$)	Annual Reported electricity demand reduction dollar savings for the year (\$) for a project	RptProjElecDemandSavingsAmt	Integer (Dollars)	ECM	Savings	
Year N-Verified (Expected) annual electricity demand savings for the project (kW/mo)	Annual Reported electricity demand reduction for the year (kW/mo) for a project	RptProjElecDemandSavingsKW	Numeric	ECM	Savings	
Year N-Verified (Expected) annual electricity cost savings for the project (\$)	Annual Reported electricity-related dollar savings for the year (\$) for a project	RptProjElecSavingsAmt	Integer (Dollars)	ECM	Savings	
Year N-Verified (Expected) annual electricity savings for the project (kWh)	Annual Reported electricity savings for the year (kWh) for a project	RptProjElecSavingsKWh	Numeric	ECM	Savings	
Project-Level: Year N-Lost cost-savings opportunity attributable to the agency (\$)	Yearly cost savings lost due to Agency's impact on a project	RptProjLostCostAmtAgency	Integer (Dollars)	Project	Savings	
Project-Level: Year N-Lost cost-savings opportunity attributable to the ESCO or equipment failure (\$)	Yearly cost savings lost due to ESCO's impact on a project	RptProjLostCostAmtESCO	Integer (Dollars)	Project	Savings	

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Project-Level: Year N-Lost energy-savings opportunity attributable to the Agency or equipment failure (MMBtu)	Yearly energy savings lost due to Agency's impact on a project	RptProjLostEngyAgency	Numeric	Project	Savings	
Project-Level: Year N-Lost energy-savings opportunity attributable to the ESCO or equipment failure (MMBtu)	Yearly energy savings lost due to ESCO's impact on a project	RptProjLostEngyESCO	Numeric	Project	Savings	
Year N-Verified (Expected) annual natural gas cost savings for the project (\$)	Annual Reported natural gas-related dollar savings for the year (\$) for a project	RptProjNGSavingsAmt	Integer (Dollars)	ECM	Savings	
Year N-Verified (Expected) annual natural gas savings for the project (MMBtu)	Annual Reported Natural gas savings for the year (MMBtu) for a project	RptProjNGSavingsMMBtu	Numeric	ECM	Savings	
Year N-Verified (Expected) annual other 1 cost savings for the project (\$)	Annual Reported dollar-related savings of other (1) energy types (\$) for the year for a project	RptProjOther1EnergySavingsAmt	Integer (Dollars)	ECM	Savings	
Year N-Verified (Expected) annual other 1 energy savings for the project (MMBtu)	Annual Reported savings of other (1) energy types (MMBtu) for the year for a project	RptProjOther1EnergySavingsMMBtu	Numeric	ECM	Savings	
Year N-Verified (Expected) annual other 2 cost savings for the project (\$)	Annual Reported dollar-related savings of other (2) energy types (\$) for the year for a project	RptProjOther2EnergySavingsAmt	Integer (Dollars)	ECM	Savings	
Year N-Verified (Expected) annual other 2 energy savings for the project (MMBtu)	Annual Reported savings of other (2) energy types (MMBtu) for the year for a project.	RptProjOther2EnergySavingsMMBtu	Numeric	ECM	Lost Cost Savings	
Year N-Verified (Expected) annual other avoided costs savings for the project (\$)	Annual Reported dollar equivalent of avoided costs for the year for a project (\$)	RptProjOtherAvoidedCostAmt	Integer (Dollars)	ECM	Lost Cost Savings	
Year N-Verified (Expected) annual project water cost savings (\$)	Annual Reported water-related dollar savings for the year (\$) for a project	RptProjWaterSavingsAmt	Integer (Dollars)	ECM	Lost Cost Savings	

Field Name	Description	DB Field Name	Data Type	Level	Sub Level	Accreditation Requirement
Year N-Verified (Expected) annual water savings for the project (KGal)	Annual Reported water savings for the year for a project	RptProjWaterSavingsKGal	Numeric	ECM	Lost Cost Savings	
Year N-Total Verified (Expected) energy savings (MMBtu)	Total Annual Verified (Expected) energy savings (MMBtu) for the project	RptTotEnergySavings	Numeric	ECM	Lost Cost Savings	
Year N- Verified (Expected) annual energy and resource cost savings (Accreditation requirement)	Annual Reported dollar equivalent of energy and water related cost savings.	RptTotRsrcCostSavingsAmt	Integer (Dollars)	ECM	Lost Cost Savings	
Year N-Total Verified (Expected) annual cost savings	Annual Reported total cost savings (\$)	RptTotSavingsAmt	Numeric	Project	Lost Cost Savings	
Third Party Verified (y/n)	Indicate if the M&V report is verified by a third party	ThrdPartyVrfy	Boolean	Project	Lost Cost Savings	
Third Party Verifier-Contact email	Third Party Verifier-Contact email	ThrPrtVerEmail	Text: (100 char max)	Project	Lost Cost Savings	
Third Party Verifier-Contact name	Third Party Verifier-Contact name	ThrPrtVerName	Text: (100 char max)	Project	Lost Cost Savings	