



Rev. 2.0 (12/16/2010)

**NOTE: In order for the macros in this tool to work, the user must verify macro security settings will allow them to run. To do this, go to Tools -> Macros -> Security. The security setting, 'medium', should be selected. This setting will prompt the user to enable macros when the file loads.**

**Data Entry**

The worksheet 'Data Input' is where all findings, measures, and savings and cost estimates are recorded.  
The last three worksheets automatically populate and are deliverables for the Program.  
[Grey cell] means the cell automatically calculates and is locked for editing purposes.  
[White cell] means the cell automatically calculates, but may be overwritten as appropriate.  
[Yellow cell] means the Program provides the information.

**Inserting and deleting rows - VERY IMPORTANT**

To insert a new finding, use the "Add Finding" button. This will ensure that all applicable formulas are copied down to the new measure and that the column totals will automatically adjust.  
**IMPORTANT: Findings cannot be deleted in the Findings Workbook**  
Once a finding is created within the Findings Workbook and it is determined the finding will not be investigated completely, mark it obsolete and zero out all saving numbers.

**Other Edits**

**IMPORTANT: Do not change the names of the existing worksheets! This is very important.**  
Providers can add worksheets (just note that original macros will not apply to the added worksheets), and use cells that are outside the used range on the existing worksheets. Do not use the row immediately below the summary row on worksheets that have summary rows.

**Measures Selected for Implementation**

Once measures are selected for implementation, be sure to identify the selected measures with a "Y" in the "Selected? (Y or N)" column of the "Data Input" worksheet, and mark the measures that weren't selected with "N". The measures that weren't selected will be filtered from the Implemented Measure Summary.

**Cost per kWh**

The PBEEEP Provider should estimate the potential cost savings for each measure. This will be dependent upon the rate tariff and, often, when the energy is saved. Therefore, it is not practical to use a single Cost per kWh value to estimate cost savings. The "Project Overview" worksheet has four custom electric rates that distinguish between summer and winter, on-peak and off-peak use periods. These rates will be entered on a case-by-case basis by the Program.

**Cost per KW**

The PBEEEP Provider should estimate the annual cost savings associated with demand (kW) reduction. The annual kW cost savings for each measure must be calculated outside of the workbook and the cost savings entered into the appropriate cell. The "Project Overview" worksheet includes custom rates to document kW tariff, which will be entered on a case-by-case basis by the Program.

## Project Overview



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The intent of this tool is to assist data collection and reporting for PBEEEP. Please do not distribute or reproduce this workbook without prior permission from PBEEEP. Thank you.

| Project Information   |         |
|---|---------|
| Project Number  |         |
| Project/Building Name   |         |
| Building Size (gross sqft)  |         |
| Building Size (conditioned sqft)  |         |
| Does the reported square footage for Building Size include Parking Lots and/or Ramps? (Y/N) |         |
| Site Energy Use Intensity (EUI)<br>(Annual kBtu/sqft)                                       | #DIV/0! |
| Benchmark EUI (Annual kBtu/sqft)  |         |
| Phase Kick-Off Date   |         |
| Phase Completion Date   |         |
| Project Kick Off Date   |         |
| Project Completion Date   |         |

| Contact List  |      |       |       |
|---|------|-------|-------|
| Project Contact   | Name | Email | Phone |
| <b>Building Owner Representative</b>                      |      |       |       |
| Name  |      |       |       |
| Agency Name   |      |       |       |
| <b>Building Engineer</b>                                  |      |       |       |
| Name  |      |       |       |
| Agency Name   |      |       |       |
| <b>Utility Representative, Electric</b>                   |      |       |       |
| Name  |      |       |       |
| Utility Name  |      |       |       |
| <b>Utility Representative, Gas</b>                        |      |       |       |
| Name  |      |       |       |
| Utility Name  |      |       |       |
| <b>Utility Representative, Other Fuel (list)</b>          |      |       |       |
| Name  |      |       |       |
| Utility Name  |      |       |       |
| <b>PBEEEP Provider, Screening Phase</b>                   |      |       |       |
| Name  |      |       |       |
| Company Name  |      |       |       |
| <b>PBEEEP Provider, Investigation</b>                     |      |       |       |
| Name  |      |       |       |
| Company Name  |      |       |       |
| <b>PBEEEP Provider, Implementation &amp; Verification</b> |      |       |       |
| Name  |      |       |       |
| Company Name  |      |       |       |
| <b>PBEEEP Program Manager (Name, CEE)</b>                 |      |       |       |
| <b>PBEEEP Project Engineer (Name, CEE)</b>                |      |       |       |
| <b>Other</b>  |      |       |       |
|   |      |       |       |

## Project Overview

| Pre-Implementation Energy Usage Summary                    |                   |             |           |
|--|-------------------|-------------|-----------|
| Type   | Annual Energy Use | Annual Cost | Cost/unit |
| Annual Electric Consumption (kWh/yr)                       |                   |             |           |
| Annual Natural Gas Consumption (therms/yr)                 |                   |             |           |
| Annual Fuel Oil Consumption (Gallons/yr)                   |                   |             |           |
| Annual LP Gas Consumption (Gallons/yr)                     |                   |             |           |
| Annual District Energy-Chilled Water Consumption (kBtu/yr) |                   |             |           |
| Annual District Energy-Hot Water Consumption (kBtu/yr)     |                   |             |           |
| Annual District Energy-Steam Consumption (kBtu/yr)         |                   |             |           |

| Project Energy Savings Summary               |                       |                               |                            |
|--|-----------------------|-------------------------------|----------------------------|
| Type   | Annual Energy Savings | Annual Cost Savings           | Savings as % of Annual Use |
| Electric Savings (kWh)                       | #NAME?                | #NAME?                        |                            |
| Peak Demand Savings (kW)                     | #NAME?                | Included in kWh cost savings. |                            |
| Gas Savings (therms)                         | #NAME?                | #NAME?                        | #NAME?                     |
| Fuel Oil Savings (Gallons)                   | #NAME?                | #NAME?                        | #NAME?                     |
| Propane Savings (Gallons)                    | #NAME?                | #NAME?                        | #NAME?                     |
| District Energy-Chilled Water Savings (kBtu) | #NAME?                | #NAME?                        | #NAME?                     |
| District Energy-Hot Water Savings (kBtu)     | #NAME?                | #NAME?                        | #NAME?                     |
| District Energy-Steam Savings (kBtu)         | #NAME?                | #NAME?                        | #NAME?                     |

| Project Costs & Incentives |                    |        |
|----------------------------|--------------------|--------|
| Customer Incentives        | PBEEEP Incentive   |        |
|                            | Utility Co-Funding | #NAME? |
| Screening Costs            |                    |        |
| Investigation Costs        |                    |        |
| Implementation Costs       |                    | #NAME? |
| Verification Costs         |                    |        |
| Total Project Cost         |                    | #NAME? |
| Net Owner Cost             |                    | #NAME? |

| Project Summary                                    |         |
|--|---------|
| GHG Avoided in U.S. Tons (CO2e)                    | #NAME?  |
| Total Energy Cost Savings                          |         |
| Savings as % of Total Energy Cost                  | #VALUE! |
| Simple Payback based on Total Project Cost (years) | #NAME?  |
| Simple Payback based on Net Owner Cost (years)     | #NAME?  |

| Utility Rates                 |               |                        |   |
|-------------------------------|---------------|------------------------|---|
| Utility Type                  | Utility Units | Utility Rate (\$/Unit) | CO2 Conversion Rate (tons of CO2e per unit of energy) |
| Electric Summer On-Peak       | kWh           |                        | 0.000857  |
| Electric Summer Off-Peak      | kWh           |                        | 0.000857  |
| Electric Winter On-Peak       | kWh           |                        | 0.000857  |
| Electric Winter Off-Peak      | kWh           |                        | 0.000857  |
| Demand Summer On-Peak         | kW            |                        | N/A   |
| Demand Winter On-Peak         | kW            |                        | N/A   |
| Natural Gas                   | therms        |                        | 0.005535  |
| Fuel Oil                      | Gallons       |                        | 0.011065  |
| LP Gas                        | Gallons       |                        | 0.006335  |
| District Energy-Chilled Water | kBtu          |                        | 0.000064  |
| District Energy-Hot Water     | kBtu          |                        | 0.00007315  |
| District Energy-Steam         | kBtu          |                        | 0.000086845   |

*Progress*



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**During the investigation, submit the Findings Workbook with each review. This is a high-level progress summary that shows the project status.**

|                                |           |
|--------------------------------|-----------|
| <b>Building:</b>               | 0         |
| <b>Project #:</b>              | 0         |
| <b>Last Date FWB Modified:</b> | 0/0/0000  |
| <b>Last Modified by:</b>       | name here |

| Phase          | Task   | Completion Date | General Notes and File Name of Document(s) Associated with Task | Entered By |
|----------------|--|-----------------|---|------------|
| Investigation  | Investigation kickoff meeting  |                 |   |            |
|                | First season investigation   |                 |   |            |
|                | 10% FWB submission (Preliminary List of Findings; trending/data logging set up review) |                 |   |            |
|                | Shoulder season investigation  |                 |   |            |
|                | 50%/Mid-Investigation FWB submission   |                 |   |            |
|                | 50%/Mid-Investigation Meeting  |                 |   |            |
|                | Second season investigation  |                 |   |            |
|                | Final Investigation Phase FWB submitted  |                 |   |            |
|                | Final Investigation Phase FWB approved   |                 |   |            |
|                | Investigation Report submission to PBEEEP  |                 |   |            |
|                | Submit approved Investigation Report to Agency   |                 |   |            |
|                | Presentation to Agency / Selection of Measures   |                 |   |            |
|                | Final Investigation Report submitted   |                 |   |            |
|                | Final Investigation Report approved  |                 |   |            |
|                | Utility co-funding submissions (if applicable)   |                 |   |            |
| Implementation | Implementation Design start  |                 |   |            |
|                | Final bids/hard costs for <u>selected</u> measures received                            |                 |   |            |
|                | Implementation start (construction)  |                 |   |            |
|                | Implementation check-in meetings(add rows as necessary)                                |                 |   |            |
| Verification   | Verification Planning Meeting (plan review/approval)                                   |                 |   |            |
|                | Verification on-site   |                 |   |            |
|                | Updated FWB (with verification data) submitted   |                 |   |            |
|                | Updated FWB (with verification data) approved  |                 |   |            |
|                | Final Project Report submitted   |                 |   |            |
|                | Final Project Report approved  |                 |   |            |
|                | Utility co-funding follow up/close-out actions (if applicable)                         |                 |   |            |

# Progress



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During the investigation, submit the Findings Workbook with each review. This is a high-level progress summary that shows the project status.

|                         |           |
|-------------------------|-----------|
| Building:               | 0         |
| Project #:              | 0         |
| Last Date FWB Modified: | 0/0/0000  |
| Last Modified by:       | name here |

| Phase                       | Task   | Completion Date | General Notes and File Name of Document(s) Associated with Task | Entered By |
|-----------------------------|--|-----------------|---|------------|
| Follow Up & Project Closure | Review training materials and hand-off plan with PBEEP                     |                 |   |            |
|                             | Conduct training with building owner and submit documentation for training |                 |   |            |

## Investigation Checklist



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This checklist is designed to be a resource and reference for Providers and PBEEP.

| Finding Category                                       | Finding Type Number | Finding Type  | Relevant Findings (if any) | Finding Location | Reason for no relevant finding | Notes |
|--|---------------------|---|----------------------------|------------------|--------------------------------|-------|
| a. Equipment Scheduling and Enabling:                  | a.1 (1)             | <a href="#">Time of Day enabling is excessive</a>   |                            |                  |                                |       |
|  | a.2 (2)             | <a href="#">Equipment is enabled regardless of need, or such enabling is excessive</a>  |                            |                  |                                |       |
|  | a.3 (3)             | <a href="#">Lighting is on more hours than necessary.</a>   |                            |                  |                                |       |
|  | a.4 (4)             | <a href="#">OTHER Equipment Scheduling/Enabling</a>   |                            |                  |                                |       |
| b. Economizer/Outside Air Loads:                       | b.1 (5)             | <a href="#">Economizer Operation – Inadequate Free Cooling (Damper failed in minimum or closed position, economizer setpoints not optimized)</a>              |                            |                  |                                |       |
|  | b.2 (6)             | <a href="#">Over-Ventilation – Outside air damper failed in an open position. Minimum outside air fraction not set to design specifications or occupancy.</a> |                            |                  |                                |       |
|  | b.3 (7)             | <a href="#">OTHER Economizer/OA Loads</a>   |                            |                  |                                |       |
| c. Controls Problems:                                  | c.1 (8)             | <a href="#">Simultaneous Heating and Cooling is present and excessive</a>   |                            |                  |                                |       |
|  | c.2 (9)             | <a href="#">Sensor/Thermostat needs calibration, relocation/shielding, and/or replacement</a>   |                            |                  |                                |       |
|  | c.3 (10)            | <a href="#">Controls "hunt" and/or need Loop Tuning or separation of heating/cooling setpoints</a>  |                            |                  |                                |       |
|  | c.4 (11)            | <a href="#">OTHER Controls</a>  |                            |                  |                                |       |
| d. Controls (Setpoint Changes):                        | d.1 (12)            | <a href="#">Daylighting controls or occupancy sensors need optimization.</a>  |                            |                  |                                |       |
|  | d.2 (13)            | <a href="#">Zone setpoint setup/setback are not implemented or are sub-optimal.</a>   |                            |                  |                                |       |
|  | d.3 (14)            | <a href="#">Fan Speed Doesn't Vary Sufficiently</a>   |                            |                  |                                |       |
|  | d.4 (15)            | <a href="#">Pump Speed Doesn't Vary Sufficiently</a>  |                            |                  |                                |       |
|  | d.5 (16)            | <a href="#">VAV Box Minimum Flow Setpoint is higher than necessary</a>  |                            |                  |                                |       |
|  | d.6 (17)            | <a href="#">Other Controls (Setpoint Changes)</a>   |                            |                  |                                |       |
| e. Controls (Reset Schedules):                         | e.1 (18)            | <a href="#">HW Supply Temperature Reset is not implemented or is sub-optimal</a>  |                            |                  |                                |       |
|  | e.2 (19)            | <a href="#">CHW Supply Temperature Reset is not implemented or is sub-optimal</a>   |                            |                  |                                |       |
|  | e.3 (20)            | <a href="#">Supply Air Temperature Reset is not implemented or is sub-optimal</a>   |                            |                  |                                |       |
|  | e.4 ( )             | <a href="#">Supply Duct Static Pressure Reset is not implemented or is sub-optimal</a>  |                            |                  |                                |       |
|  | e.5 (21)            | <a href="#">Condenser Water Temperature Reset is not implemented or is sub-optimal</a>  |                            |                  |                                |       |
|  | e.6 (22)            | <a href="#">Other Controls (Reset Schedules)</a>  |                            |                  |                                |       |
| f. Equipment Efficiency Improvements / Load Reduction: | f.1 (23)            | <a href="#">Daylighting Control needs optimization—Spaces are Over-Lit.</a>   |                            |                  |                                |       |
|  | f.2 (24)            | <a href="#">Pump Discharge Throttled</a>  |                            |                  |                                |       |
|  | f.3 (25)            | <a href="#">Over-Pumping</a>  |                            |                  |                                |       |
|  | f.4 (26)            | <a href="#">Equipment is oversized for load.</a>  |                            |                  |                                |       |
|  | f.5 (27)            | <a href="#">OTHER Equipment Efficiency/Load Reduction</a>   |                            |                  |                                |       |
|  | g.1 (28)            | <a href="#">VFD Retrofit - Fans</a>   |                            |                  |                                |       |

## Investigation Checklist



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| Finding Category                    | Finding Type Number | Finding Type   | Relevant Findings (if any) | Finding Location | Reason for no relevant finding | Notes |
|-------------------------------------|---------------------|--|----------------------------|------------------|--------------------------------|-------|
| g. Variable Frequency Drives (VFD): | g.2 (29)            | <a href="#">VFD Retrofit - Pumps</a>   |                            |                  |                                |       |
|                                     | g.3 (30)            | <a href="#">VFD Retrofit - Motors (process)</a>  |                            |                  |                                |       |
|                                     | g.4 (31)            | <a href="#">OTHER VFD</a>  |                            |                  |                                |       |
| h. Retrofits:                       | h.1 (32)            | <a href="#">Retrofit - Motors</a>  |                            |                  |                                |       |
|                                     | h.2 (33)            | <a href="#">Retrofit - Chillers</a>  |                            |                  |                                |       |
|                                     | h.3 (34)            | <a href="#">Retrofit - Air Conditioners (Air Handling Units, Packaged Unitary Equipment)</a> |                            |                  |                                |       |
|                                     | h.4 (35)            | <a href="#">Retrofit - Boilers</a>   |                            |                  |                                |       |
|                                     | h.5 (36)            | <a href="#">Retrofit - Packaged Gas fired heating</a>  |                            |                  |                                |       |
|                                     | h.6 (37)            | <a href="#">Retrofit - Heat Pumps</a>  |                            |                  |                                |       |
|                                     | h.7 (38)            | <a href="#">Retrofit - Equipment (custom)</a>  |                            |                  |                                |       |
|                                     | h.8 (39)            | <a href="#">Retrofit - Pumping distribution method</a>                                       |                            |                  |                                |       |
|                                     | h.9 (40)            | <a href="#">Retrofit - Energy/Heat Recovery</a>  |                            |                  |                                |       |
|                                     | h.10 (41)           | <a href="#">Retrofit - System (custom)</a>   |                            |                  |                                |       |
|                                     | h.11 (42)           | <a href="#">Retrofit - Efficient Lighting</a>  |                            |                  |                                |       |
|                                     | h.12 (43)           | <a href="#">Retrofit - Building Envelope</a>   |                            |                  |                                |       |
|                                     | h.13 (44)           | <a href="#">Retrofit - Alternative Energy</a>  |                            |                  |                                |       |
|                                     | h.14 (45)           | <a href="#">OTHER Retrofit</a>   |                            |                  |                                |       |
| i. Maintenance Related Problems:    | i.1 (46)            | <a href="#">Differed Maintenance from Recommended/Standard</a>                               |                            |                  |                                |       |
|                                     | i.2 (47)            | <a href="#">Impurity/Contamination</a>   |                            |                  |                                |       |
|                                     | i.3 ( )             | <a href="#">Leaky/Stuck Damper</a>   |                            |                  |                                |       |
|                                     | i.4 ( )             | <a href="#">Leaky/Stuck Valve</a>  |                            |                  |                                |       |
|                                     | i.5 (48)            | <a href="#">OTHER Maintenance</a>  |                            |                  |                                |       |
| j. OTHER                            | j.1 (49)            | <a href="#">OTHER</a>  |                            |                  |                                |       |



# Equipment List



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This worksheet is a guideline for the equipment-specific information that is needed for the project. Select "Yes" below if a separate equipment list will be submitted with the Findings Workbook. Indicate the equipment list file name in the Attachments worksheet of the Findings Workbook. Providers may use a different format or spreadsheet to collect this data, as long as it is also included in the Findings Workbook submissions.

Was a separate equipment list used?

| Equipment Tag | Equipment Type | Equipment Description / Nameplate Data | Does equipment have a VFD installed (pre-project)? | Year Installed | Year (s) Upgraded | Describe Upgrade(s) | Capacity | Operating Characteristics |        |         | Location | System / Area Served |
|---------------|----------------|--|--|----------------|-------------------|---------------------|----------|---------------------------|--------|---------|----------|----------------------|
|               |                |  |  |                |                   |                     |          | Daily (hrs)               | Weekly | Monthly |          |                      |
|               |                |  |  |                |                   |                     |          |                           |        |         |          |                      |
|               |                |  |  |                |                   |                     |          |                           |        |         |          |                      |
|               |                |  |  |                |                   |                     |          |                           |        |         |          |                      |

## *Equipment List*

No  
Yes

## *Equipment List*

No  
Yes





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All data entry occurs in this spreadsheet. Data will automatically input to cells in the summary spreadsheets, formatted to print as Program deliverables.

### 1. Investigation Findings

| # | Investigation Finding | Description of Finding | Date Identified | Equipment or System(s) Affected | Finding Category | Finding Type | Baseline Documentation Method |
|---|-----------------------|------------------------|-----------------|---------------------------------|------------------|--------------|-------------------------------|
| 1 | ALL Findings          |                        |                 |                                 |                  |              |                               |



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All data entry occurs in this spreadsheet

| 1. Investigation Findings |                       | 2. Measures |          |             |                                    |                                    |
|---------------------------|-----------------------|-------------|----------|-------------|------------------------------------|------------------------------------|
| #                         | Investigation Finding | Measure     | Benefits | Implementer | Recommendations for Implementation | Evidence of Implementation: Method |
| 1                         | ALL Findings          |             |          |             |                                    |                                    |



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| 1. Investigation Findings |                       | 3. Pre-Implement   |
|---------------------------|-----------------------|--------------------|
| #                         | Investigation Finding | Interaction Factor |
| 1                         | ALL Findings          | 0.85               |



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All data entry occurs in this spreadsheet

| 1. Investigation Findings |                       | 4. Pre-Implementation Cost Estimates |  |  | 5. Pre-Implementation Energy Savings Summary    |  |                                 |
|---------------------------|-----------------------|--------------------------------------|--|--|---|--|---------------------------------|
| #                         | Investigation Finding | Contractor Cost (\$)                 | PBEEP Provider Cost for Implementation Assistance (\$) | Total Estimated Implementation Cost (\$) | Annual Electric Savings (kWh with interactions) | Peak Demand Savings (kW with interactions) | GHG Avoided in U.S. Tons (CO2e) |
| 1                         | ALL Findings          | #NAME?                               | #NAME?   | #NAME?                                   | #NAME?  | #NAME?                                     | #NAME?                          |



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| 1. Investigation Findings |                       | 6. Pre-Implementation Payback     |                                      |                                     |                                |  |
|---------------------------|-----------------------|-----------------------------------|--------------------------------------|-------------------------------------|--------------------------------|--|
| #                         | Investigation Finding | Estimated Annual kWh Savings (\$) | Estimated Annual Demand Savings (\$) | Estimated Annual Total Savings (\$) | Initial Simple Payback (years) | Simple Payback with Utility Co-Funding (years) |
| 1                         | ALL Findings          | \$0                               | #NAME?                               | #NAME?                              | #NAME?                         | #NAME?   |



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| 1. Investigation Findings |                       | 7. Pre-Implementation Utility Co-Funding Estimates and Implementation Notes |                   |                                 |                                |                                    |   |                      |
|---------------------------|-----------------------|---|-------------------|---------------------------------|--------------------------------|------------------------------------|---|----------------------|
| #                         | Investigation Finding | Date Measures Selected (Implementation Start)                               | Selected? (Yor N) | Utility Co-Funding for kWh (\$) | Utility Co-Funding for kW (\$) | Utility Co-Funding for therms (\$) | Utility Co-Funding - Estimated Total (\$) | Implementation Notes |
| 1                         | ALL Findings          |   |                   | #NAME?                          | #NAME?                         | #NAME?                             | \$0                                       |                      |



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| 1. Investigation Findings |                       | 8. Post-Implementation Measures |                             |                     |   |             |                                     |                                |
|---------------------------|-----------------------|---------------------------------|-----------------------------|---------------------|---|-------------|-------------------------------------|--------------------------------|
| #                         | Investigation Finding | #                               | Updated Measure Description | Implemented? (Y, N) | Site Visit Date (Implementation Complete) | Implementer | Evidence of Implementation: Results | Ongoing Maintenance of Measure |
| 1                         | ALL Findings          | 1                               |                             |                     |   |             |                                     |                                |



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| 1. Investigation Findings |                       | 9. Post-Implement       |
|---------------------------|-----------------------|-------------------------|
| #                         | Investigation Finding | Factor for Interactions |
| 1                         | ALL Findings          | 0.85                    |



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| 1. Investigation Findings |                       | 10. Post-Implementation Costs |  |  | 11. Post-Implementation Energy Savings Summary (with interactions) |  |                                 |
|---------------------------|-----------------------|-------------------------------|--|--|--|--|---------------------------------|
| #                         | Investigation Finding | Contractor Cost (\$)          | PBEEP Provider Cost for Implementation Assistance (\$) | Updated Total Implementation Cost (\$) | Updated Annual Electric Savings (kWh with interactions)            | Updated Peak Demand Savings (kW with interactions) | GHG Avoided in U.S. Tons (CO2e) |
| 1                         | ALL Findings          | #NAME?                        | #NAME?   | #NAME?                                 | 0  | 0  | 0                               |



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| 1. Investigation Findings |                       | 12. Post-Implementation Measure Payback |                                   |                                   |                                |  |
|---------------------------|-----------------------|---|-----------------------------------|-----------------------------------|--------------------------------|--|
| #                         | Investigation Finding | Updated Annual Electrical Savings(\$)   | Updated Annual Demand Savings(\$) | Updated Annual Total Savings (\$) | Updated Simple Payback (years) | Updated Simple Payback with Utility Co-Funding (years) |
| 1                         | ALL Findings          | \$0                                     | #NAME?                            | \$0                               | #NAME?                         | #NAME?   |



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| 1. Investigation Findings |                       | 13. Post-Implementation Utility Co-Funding and Close-Out Notes |   |  |  |                                       |                 |
|---------------------------|-----------------------|--|---|--|--|---------------------------------------|-----------------|
| #                         | Investigation Finding | Date Measure Approved by Program                               | Updated Utility Co-Funding for kWh (\$) | Updated Utility Co-Funding for kW (\$) | Updated Utility Co-Funding for therms (\$) | Updated Utility Co-Funding Total (\$) | Close Out Notes |
| 1                         | ALL Findings          |  | #NAME?                                  | #NAME?                                 | #NAME?                                     | \$0                                   |                 |

*Investigation Summary*



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Summary page for the owner's reference. \* Print on legal size paper.

| Investigation Findings and Measures |         |                        |         |             |                                    |                                    |
|-------------------------------------|---------|------------------------|---------|-------------|------------------------------------|------------------------------------|
| Investigation #                     | Finding | Description of Finding | Measure | Implementer | Recommendations for Implementation | Evidence of Implementation: Method |
| 1                                   |         |                        |         |             |                                    |                                    |



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Summary page for the owner's reference. \* Print on legal size paper.

| Investigation Findings and Measures |         |                        | Energy Savings Estimates |         |   |  |                                 |
|-------------------------------------|---------|------------------------|--------------------------|---------|---|--|---------------------------------|
| Investigation #                     | Finding | Description of Finding | Investigation #          | Finding | Annual Electric Savings (kWh with interactions) | Peak Demand Savings (kW with interactions) | GHG Avoided in U.S. Tons (CO2e) |
| 1                                   |         |                        | 1                        |         | 0   | 0  | 0                               |

*Investigation Summary*



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Summary page for the owner's reference. \* Print on legal size paper.

| Investigation Findings and Measures |                       |                        | Cost Savings Estimates            |                                      |                                     | Implementation Cost Estimates |  |  | Paybacks and Utility Co-Funding Estimate |   |  |
|-------------------------------------|-----------------------|------------------------|-----------------------------------|--------------------------------------|-------------------------------------|-------------------------------|--|--|--|---|--|
| #                                   | Investigation Finding | Description of Finding | Estimated Annual kWh Savings (\$) | Estimated Annual Demand Savings (\$) | Estimated Annual Total Savings (\$) | Contractor Cost (\$)          | PBEEEEP Provider Cost for Implementation Assistance (\$) | Total Estimated Implementation Cost (\$) | Initial Simple Payback (years)           | Utility Co-Funding - Estimated Total (\$) | Simple Payback with Utility Co-Funding (years) |
|                                     |                       |                        |                                   |                                      |                                     |                               |  |  |  |   |  |
| 1                                   |                       |                        | \$0                               |                                      | \$0                                 |                               |  | \$0                                      |  | \$0                                       |  |

# Implemented Measure Summary



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Summary page for the owner's reference. \* Print on legal size paper.

| Implementation Summary            |         |                             |             | Energy Savings                      |   |  |                                 |
|-----------------------------------|---------|-----------------------------|-------------|-------------------------------------|---|--|---------------------------------|
| #                                 | Measure | Updated Measure Description | Implementer | Evidence of Implementation: Results | Updated Annual Electric Savings (kWh with interactions) | Updated Peak Demand Savings (kW with interactions) | GHG Avoided in U.S. Tons (CO2e) |
| 1                                 |         |                             |             |                                     | 0   | 0  | 0                               |
| <b>Total Implemented Measures</b> |         |                             |             |                                     | #NAME?  | #NAME?   | #NAME?                          |

## Implemented Measure Summary



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Summary page for the owner's refer

| Implementation Summary |         | Cost Savings                          |                                   |                                   | Implementation Cost                    | Paybacks and Utility Co-Funding |                                       |  |                     |
|------------------------|---------|---------------------------------------|-----------------------------------|-----------------------------------|--|---------------------------------|---------------------------------------|--|---------------------|
| #                      | Measure | Updated Annual Electrical Savings(\$) | Updated Annual Demand Savings(\$) | Updated Annual Total Savings (\$) | Updated Total Implementation Cost (\$) | Updated Simple Payback (years)  | Updated Utility Co-Funding Total (\$) | Updated Simple Payback with Utility Co-Funding (years) | Implemented? (Y, N) |
| 1                      |         | \$0                                   |                                   | \$0                               | \$0                                    |                                 | \$0                                   |  |                     |
|                        |         | #NAME?                                | #NAME?                            | #NAME?                            | #NAME?                                 | #NAME?                          | #NAME?                                | #NAME?   |                     |

## Non-Implemented Measure Summary



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Non-implemented measures summary table. Summary page for the owner's reference. \* Print on legal size paper.

| Implementation Summary |                       |                             |             | Energy Savings                      |   |  |                                 |
|------------------------|-----------------------|-----------------------------|-------------|-------------------------------------|---|--|---------------------------------|
| #                      | Investigation Finding | Updated Measure Description | Implementer | Evidence of Implementation: Results | Updated Annual Electric Savings (kWh with interactions) | Updated Peak Demand Savings (kW with interactions) | GHG Avoided in U.S. Tons (CO2e) |
| 1                      |                       |                             |             |                                     | 0   | 0  | 0                               |
| <b>TOTALS</b>          |                       |                             |             |                                     | #NAME?  | #NAME?   | #NAME?                          |

## Non-Implemented Measure Summary



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### Non-implemented measures summary table

| Implementation Summary |                       | Cost Savings                          |                                   |                                   | Implementation Cost | Paybacks and Utility Co-Funding        |                                |                                       |  |
|------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|---------------------|--|--------------------------------|---------------------------------------|--|
|                        |                       | Updated Annual Electrical Savings(\$) | Updated Annual Demand Savings(\$) | Updated Annual Total Savings (\$) |                     | Updated Total Implementation Cost (\$) | Updated Simple Payback (years) | Updated Utility Co-Funding Total (\$) | Updated Simple Payback with Utility Co-Funding (years) |
| #                      | Investigation Finding |                                       |                                   |                                   |                     |  |                                |                                       |  |
| 1                      |                       | \$0                                   |                                   | \$0                               | \$0                 |  | \$0                            |                                       |  |
|                        |                       | #NAME?                                | #NAME?                            | #NAME?                            | #NAME?              | #NAME?                                 | #NAME?                         | #NAME?                                |  |