**NJ Clean Energy Program™**

**FY19 Large Energy Users Program**

**DEEP/FEEP Template**

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| **Instructions**This template is intended to provide a rough outline of the sections and information required in a Draft or Final Energy Efficiency Plan submitted to the Large Energy Users Program. This outline may be integrated into a customer’s internal document format or completed within this Word document.On the cover page, update customer information, identify whether the submission is a DEEP/FEEP and submittal date. Each revision to the DEEP/FEEP should include an updated cover page with the submittal date and version number.The metering plan and appendices are required for FEEP submittals only and are marked below as such. With each FEEP revision, please include all appendices. |

**[Applicant Name]**

**[DEEP/FEEP] Rev[0]**

**[Date]**

***New Jersey’s Clean Energy Program™***

**Large Energy Users Program**

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# Executive Summary

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| **Instructions***The Executive Summary shall include a short write-up summarizing the contents of the report, contact person(s) as well as the following metrics:** + *Existing site energy use from previous 12 months (kWh, kW, Therm)*
	+ *Existing total site energy use from previous 12 months (kBtu/sqft)*
	+ *Projected annual site energy savings (kWh, kW, Therm, and %)*
	+ *Projected annual total site energy savings (kBtu/sqft and %)*
	+ *Total estimated project cost ($)*
	+ *Total estimated annual energy cost savings ($)*

*In addition to the write-up, the following summary table formats may be used to complete this task.*  |

|  |  |  |  |
| --- | --- | --- | --- |
|    | **Annual Consumption** | **Projected Savings** | **% Savings** |
| Electricity (kWh) | 0 | 0 | 0% |
| Electricity (kW) |  |  |  |
| Natural Gas (Therm) | 0 | 0 | 0% |
| Other (Therm) | 0 | 0 | 0% |
| Total Site Energy Use Intensity (kBtu/ft2) | 0 | 0 |  0% |
|  |  |  |  |  |  |
| Total Project Cost ($) | $0 |  |  |  |  |
| Annual Energy Cost Savings ($) | $0 |  |  |  |  |
| Internal Rate of Return (IRR) | 0% |  |  |  |  |
| Simple Payback (yrs) | 0 |  |  |  |  |
|  |  |  |  |

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# Site Overview

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| **Instructions***The Site Overview section shall include, but is not limited to, the following information for each facility where energy-efficiency work is to be performed:* * *Name and address*
* *Short description and use*
* *Year built*
* *Square footage*

*The following summary table format may be used to complete this task.*  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Building Name** | **Address** | **Description/Use** | **Year Built** | **Sq. Ft.** |
| 1 |   |   |   |  |   |
| 2 |   |   |   |  |   |
| 3 |   |   |   |  |   |
| 4 |   |   |   |  |   |
| 5 |   |   |   |  |   |
|  |  |  |  | **Total** | **0** |

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# Utilities Overview

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| **Instructions***The Utilities Overview section shall include a summary of the utility services for the facilities listed in the Site Overview, including total annual usage, total annual cost (supply and delivery), and average cost per unit. The cost per unit calculated in this section should be used elsewhere in the DEEP/FEEP to calculate annual energy cost savings.**The following summary table format may be used to complete this task.* |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |   | **Electricity (kWh)** | **Natural Gas (Therm)** | **Other (Therm)** |
| 1 | <Building Name> | Total Annual Use | 0 | 0 | 0 |
| Total Cost | $0 | $0 | $0 |
| Average Unit Cost | $0 | $0 | $0 |
| 2 | <Building Name> | Total Annual Use | 0 | 0 | 0 |
| Total Cost | $0 | $0 | $0 |
| Average Unit Cost | $0 | $0 | $0 |

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# Summary of Proposed Energy Conservation Measures

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| **Instructions***The Proposed Energy Conservation Measures (ECM) section shall include a summary of the recommended measures to be implemented at the facilities listed in the Site Overview during the next twelve (12) months. The following information shall be included (by measure) for each facility:** *Estimated installed cost*
* *Estimated annual site energy savings (kWh, kW, Therm)*
* *Estimated annual O&M savings ($)*
* *Estimated annual energy cost savings ($)*
* *Estimated simple payback or IRR % (total of all measures)*

*The following summary table formats may be used to complete this task.*  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **<Building Name>[[1]](#footnote-1)** | **Installed Cost (incl. design)** | **Annual Energy Savings** | **Demand Savings** | **Annual O&M Savings** | **Annual Cost Savings** | **Measure Life** | **Simple Payback** | **IRR** |
| **Measure Name** | **$** | **kWh** | **Gas Therm** | **Other Therm** | **kW** | **$** | **$** | **years** | **years** | % |
| 1 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 2 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 3 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 4 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 5 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2** | **<Building Name>** | **Installed Cost (incl. design)** | **Annual Energy Savings** | **Demand Savings** | **Annual O&M Savings** | **Annual Cost Savings** | **Measure Life** | **Simple Payback** | **IRR** |
| **Measure Name** | **$** | **kWh** | **Gas Therm** | **Other Therm** | **kW** | **$** | **$** | **years** | **years** | % |
| 1 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 2 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 3 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 4 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
| 5 |   | $0 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 | 0 | 0.00 | 0.0% |
|   |  |  |  |
|  |  |  |  |
| *CM Fees* | $0 |  |  |  |  |  |  |  |  |  |
| *Other Fees* | $0 |  |  |  |  |  |  |  | Average |
|  **TOTALS** | $0.00 | 0.0 | 0.0 | 0.0 | 0.0 | $0 | $0 |   | 0.00 | 0.0% |

# Energy Conservation Measure Descriptions

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| **Instructions***The ECM Descriptions section shall include, at a minimum, a write-up for each ECM identifying the following information:** + - *Project location*
		- *General description of existing conditions*
		- *General description of proposed improvement*
		- *Estimated construction start and end dates for each measure*
		- *Outline of the methodology and assumptions used to calculate measure energy savings. This section may be fairly high-level for Draft Plans but should be specific and descriptive for Final Plans.*
		- *Description of how measure exceeds minimum efficiency requirements of the program*

*Measure details and equipment replaced should be descriptive and can be drafted as narrative text within the report. Figures and tables may be added to support the narrative.*  |

# Financing Plan

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| **Instructions***The objective of the Financing Plan is to clearly present a detailed description of how the proposed energy efficiency work scope is intended to be financed. The plan should provide enough detail to ensure that all parties (applicant, contractor, and the Program Manager) are aware of the intended sources of funding for the energy efficiency project.* *The Financing Plan shall include estimates of all anticipated sources of funding, including LEUP incentive. Sources of funding may include customer capital, bank loan, federal grants, etc. Total estimated funding should equal total estimated project cost.* *The following summary tables may be used to complete this task.*  |

|  |  |  |
| --- | --- | --- |
| Total Cost of Improvements | $0  |  |
| Construction Management Fees | $0  |  |
| Other Fees | $0  |  |
| **TOTAL COSTS** | **$0**  |  |
|  |  |
| Anticipated LEUP Incentive | $0 |
|  <Funding source 1> | $0  |
|  <Funding source 2> | $0  |
| **TOTAL FUNDING** | **$0** |  |

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# Metering Plan

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| **Instructions****This section is only required for FEEP submittals.***A building-specific pre- and post-metering write-up plan is a required component of each FEEP and must, in general, address the following for each measure and building in order to properly determine energy savings:*1. *How will the pre-retrofit equipment usage be determined?*
2. *How will the post-retrofit equipment usage be determined and how will that relate to the pre-retrofit conditions?*
3. *What factors or variables affect energy consumption of both pre and post-retrofit conditions (e.g. outside and indoor air temperature, humidity, occupancy, and operating hours)?*
4. *How will these factors/variables be measured and used to adjust the pre or post-retrofit energy usage, if necessary, so savings can be determined?*

*M&V plans must be prepared for each measure and include the following information:* * + *Identification of IPMVP Option selected*
	+ *Schedule for all M&V activities*
	+ *Details of baseline conditions and data to be collected*
	+ *Documentation of all assumptions and sources of data*
	+ *Details of engineering analysis to be performed*
	+ *How energy savings will be calculated*
	+ *Details of any other cost savings claimed*
	+ *Details of proposed energy and cost savings*
	+ *Details of post-installation verification activities to be performed and by whom, including inspections, measurements, analysis and customer project acceptance procedures*
	+ *Details of any anticipated routine adjustments to baseline or reporting period energy and/or adjustment parameters*
	+ *Content and format of all required M&V reports (post-installation and periodic M&V)*

***Refer to the Program Guide for complete M&V protocols.*** |

# Appendix A: Professional Engineer (PE) Certification:

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| **Instructions****This section is only required for FEEP submittals.***This will be requested from the applicant at the conclusion of the FEEP review. PE Certification does not need to be included with the initial FEEP submission.* A signed and stamped letter on letterhead from a Professional Engineer attesting to the contents of the final FEEP revision will be required. |

# Appendix B: Utility bills

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| **Instructions****This section is only required for FEEP submittals.***One utility bill is required for each facility submitted with the FEEP only for the month of peak demand. The utility bills will be used to confirm that the average billed peak demand of all facilities submitted in the FEEP meet or exceed 400kW and/or 4,000 DTh. Copies of 12 months of utility bills are NOT required in the appendix.* |

# Appendix C: Energy Savings Calculations

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| **Instructions****This section is only required for FEEP submittals.***Energy savings calculations must be submitted as support for the annual energy savings proposed in the FEEP. The savings calculations should clearly indicate annual energy savings. Spreadsheets should be submitted in Excel format with formulas accessible, where permissible.**Please note the following in regard to the annual calculated energy savings by source: Depending upon the complexity of the energy conservation measures in the FEEP, the associated calculations may require building modeling to properly estimate the energy savings for particular measures. These measures may include building shell upgrades, building management systems, etc. Typical ECMs such as lighting, HVAC, motors, and others will likely not require these efforts and may be presented with generally accepted energy savings calculations and methodologies. Applicants for these typical ECMs may elect to use SmartStart Buildings incentive worksheets.****Note:*** *Metered data must be submitted in an appropriate format to facilitate review, such as Excel.* |

# Appendix D: Project Cost Documentation

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| **Instructions****This section is only required for FEEP submittals.***Copies of quotes and/or proposals to support project costs identified in the FEEP. Material, labor, construction management and other costs should be separated, where possible.* |

# Appendix E: Manufacturer’s specification sheets and proof of Qualified Product Listing

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| **Instructions****This section is only required for FEEP submittals.***Specification sheets in this section should document equipment metrics such as capacity and efficiency that are used in energy savings calculations for both existing and proposed equipment. For specification sheets with multiple options/configurations, circle or highlight the specific model number or configuration which will be installed.**For lighting projects, existing fixture wattages should align with standard wattages provided in this document* [*https://www.sceonlineapp.com/documents/169/App%20B%20Standard%20Fixture%20Watts.pdf*](https://www.sceonlineapp.com/documents/169/App%20B%20Standard%20Fixture%20Watts.pdf) *or otherwise be supported by manufacturer’s specification sheets.**Proof of applicable qualified product listing for proposed equipment should be submitted in Appendix E of the FEEP where required by the minimum performance standards of the program.* ***Refer to Appendix A of the program guide for a full list of specific qualified product listing requirements.*** *Qualified product listings may include:** *For LED lighting, attach a printout/screenshot of the specific model number that will be installed from* [*www.desighlights.org*](http://www.desighlights.org) *or* [*www.energystar.gov*](http://www.energystar.gov)*. The wattage used*
* *For HVAC projects, attach the equipment AHRI certificate from* [*www.ahridirectory.org*](http://www.ahridirectory.org)*.*
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1. Master-metered campus facilities do not necessarily need to break out savings per building. [↑](#footnote-ref-1)