

## **Attachment B-1: Study Report Requirements**

**Report Format** – NYSERDA will accept the final study report deliverable in any format (Word, PDF, PowerPoint, Excel, etc.), if it includes all of the information identified in this section.

**Executive Summary** - Provide a high-level project summary relevant to the customer's objectives (ex. the FlexTech project's intent, approach, and tasks performed, findings, recommendations, the economics of the recommendations, explanation of any deviations from the Scope of Work during the project, if applicable).

**Background** - Provide information about the Customer and the project that is relevant to the study (ex. type of business or organization, average number of employees per location, annual energy costs by fuel type, electric and gas suppliers, rate tariff, etc.). A description of all existing building systems evaluated, including but not limited to sizing, location, operation, age, condition, and efficiency, should also be included.

**Project Results/Recommendations** – Include all relevant results of the evaluated measures, including:

- **Project Summary Sheet:** The content in this summary table is **required** in all project reports (see Attachment B-2). The table provides an overview of the project metrics by identifying the payback, costs and savings in dollars, mmBtus, and kWh, kW (where appropriate), current energy consumption at the facility, costs/rates used in the analysis and the status of each evaluated recommendation.
- **Evaluated measure findings:** Provide a description of the evaluated measures, such as what was evaluated, analysis results, proposed conditions, and recommendations.
- Include reasons for recommendations on all energy efficiency measures and capital improvements.
- **Economic analysis:** Provide thorough economic evaluation to include, at minimum, all parameters required for simple payback analysis. Life-cycle cost or other more detailed analyses (e.g. ROI, IRR, etc.) may also be included, if desired or if required by the Scope of Work.
- **Additional benefits:** Reports should strive to include information on additional potential project benefits, such as increased productivity, job creation or retention, greenhouse gas reduction, or environmental benefits. Include as a qualitative description of other project benefits, such as increased knowledge or information base, comfort, competitiveness, product quality, or energy affordability.

**Supporting Documentation** - Include all relevant supporting documentation for the evaluated measures, including:

- Historical energy costs (minimum 12 months)
- Energy or carbon savings calculations evaluated, including:
  - Clearly demonstrated assumptions based on anticipated changes to the system or equipment being evaluated must be provided

- Clearly stated conversion factors used must be provided
- Energy and carbon savings calculations must be presented as savings at the customer's utility meter(s), and not at the individual building or tenant space. *For example, self-generated steam or chilled water savings should be reported back to the source of generation (i.e. natural gas)*
- Measured data logs with accurate units of measure and indication of the measured data source(s), where appropriate
- Itemized project implementation cost estimates (at minimum material and labor costs associated with each measure)
- Sources of cost estimates and/or vendor quotes, as applicable
- **For projects where computer modeling is used, reports must also include:**
  1. Brief presentation of the manipulations which the software program performed (e.g. utility bill calibration and accuracy level)
  2. Input data for the building and for each EEM should be presented in a manner which allows easy identification of input parameters
  3. Output data from model with clear and precise presentation of the results in both tabular and narrative forms
  4. Verification that interaction effects were taken into account
- **For projects that include RCx, reports must also include:**
  1. Final current facilities requirement (CFR) document that includes:
    - a. Setpoints – Heating and cooling
    - b. Setpoints – occupied and unoccupied
    - c. Ventilation
    - d. Schedule
    - e. Space pressurization
    - f. Expected occupancy
    - g. Filtration requirements
  2. A description of all existing building systems included in the RCx effort, including but not limited to
    - a. Basic control ideology for each individual system
    - b. Distribution system design
    - c. Design and/or tested flow rates
    - d. Known issues at the project start
  3. All forms (pre and post) for tested deficiencies that demonstrate methodology and completeness of the testing
  4. Each deficiency must also be included on the required Project Summary Sheet
- For projects that include a student intern (REV Campus Challenge members only), student interns must complete a final report summarizing their tasks and how it relates to the project.