

Attachment B - Scope of Work Requirements, Deliverables and Template

HIGH PERFORMANCE PROJECTS

The scope of work, to be submitted with the Application, is a concise document containing 1) project background and the type of energy efficiency package being proposed, 2) a description of the site – including square footage, a description of existing conditions and systems, 3) a description of the tasks required to develop the energy efficiency package and the methodology used for analysis (energy modeling, excel spreadsheet analysis, etc.), 4) roles and responsibilities of subcontractors, if any, 5) a project timeline, and 6) a budget (see Attachment C). These tasks are applicable to the development of a custom and generic energy efficiency packages.

Note: *All energy modeling tasks shall follow the guidelines outlined in the Program's Energy Modeling Guidelines (Attachment E). All modeled / proposed energy efficiency measures must exceed the current energy code.*

- 1. Site Visit and Data Collection:** Onsite building survey, including a walkthrough of the Tenant Office Space, and data collection
- 2. Coordination meeting(s):** The Energy Consultant will participate in the Tenant Office Space design process and assist in identifying potential energy efficiency measures. The Energy Consultant shall hold kick-off discussions, meetings, and/or review of early stage project documentation relevant to the most significant areas of Tenant Office Space energy use.
- 3. Development of energy model baseline (for energy modeling projects only):** If an energy model is pursued, the Energy Consultant shall develop the baseline energy model of the Tenant Office Space. For all new Tenant fit-outs and major renovation projects, the baseline shall be in accordance with ASHRAE Standard 90.1 2013, the Energy Efficiency Construction Code of New York State, and NYSERDA Program requirements (see the Program Energy Modeling Guidelines in Attachment E).

Deliverable: Baseline energy model including schedule of assumptions used in the modeling, reference to applicable energy code, energy model tool defaults, and/or existing building conditions baseline parameters, as relevant.

- 4. Development of design options:** The Energy Consultant will develop a list of design options for consideration in the energy model if one is developed, or through other means of detailed energy analysis, including: high efficiency systems, external and internal load reduction, lighting, plug load, and other energy savings opportunities. This will result in the development of a preliminary list of energy efficiency measures to be fully evaluated. The Energy Consultant shall then model or analyze the energy efficiency measures as adaptations of the baseline case. By considering a variety of options that can be combined in different ways and include interactive effects among measures, a Tenant can select the most appropriate options for final modeling or analysis.

The energy efficiency package must include measures that exceed the current Energy Conservation and Construction Code of New York State (ECCCNYS) requirements for at least two (2) of the

following five (5) building systems: lighting, heating, ventilation and air conditioning (HVAC), service water heating, unregulated loads and process loads, or building envelope.

Deliverable: The list of the preliminary energy efficiency measures proposed to the client shall be provided to the NYSERDA Project Manager. This list shall also be shared with the Landlords when the Landlord is leading the Tenant Office Space fit-out process.

- 5. Detailed energy analysis or development of final model (for energy modeling projects only):** The Energy Consultant will work with the Project Team to review the results from the design development phase and develop the final list of energy efficiency measures for consideration in the final energy efficiency package for the Tenant Office Space. This package will include the final list of recommended energy efficiency measures the Tenant selected. For energy modeling projects, this will include developing the final energy model based on this final list of measures. The schedule of modeling assumptions shall be updated as appropriate.

Deliverable: Final energy model (for energy modeling projects only); the final list of recommended energy efficiency measures should be provided to the Customer and the NYSERDA Project Manager.

- 6. Financial analysis:** The Energy Consultant shall perform a detailed financial analysis based on the final energy efficiency package proposed for the project; model outputs (for energy modeling projects); incremental cost estimates for each measure; energy savings and load reduction; and payback period, return on investment, net present value, and internal rate of return. The financial analysis will be included in the final report and will include, at minimum:

- o The incremental cost for each measure
- o The incremental energy savings above code for each measure
- o The incremental annual operational cost savings and savings over the lease term
- o Simple payback period, net present value, and internal rate of return.

- 7. Final Report:** The Energy Consultant will develop a final report which shall include, at minimum:

- o An executive summary, including project background, results and recommendations
- o A description of each recommended energy efficiency measure
- o Detailed energy savings calculations and data to support the energy savings estimates
- o Financial Analysis

- 8. Close out meeting:** Meeting with the Tenant and Project team to review the final results of the project.

Deliverable: To enable NYSERDA to gain real-time feedback on the outcomes of the program, the NYSERDA Project Manager shall be invited to attend the project close-out meeting.

The Energy Consultant must submit all deliverables outlined above to the NYSERDA Project Manager via the online application portal. The Technical Reviewer will also review the deliverables and comments will be provided to the Energy Consultant within fifteen (15) business days of receipt of each deliverable. The Energy Consultant shall prepare revisions to the deliverable reflecting the NYSERDA Project Manager's comments

and resubmit the revised deliverable within fifteen (15) business days after receipt of comments. If the deliverable is acceptable, the NYSERDA Project Manager shall provide final approval.

BASIC TRACK PROJECTS

The scope of work, to be submitted with the Application, is a concise document containing 1) project background and goals and the type energy analysis being proposed, 2) a description of the site – including square footage, a description of existing conditions and systems, 3) a description of the tasks required to meet the project goals, 4) roles and responsibilities of subcontractors, if any, 5) a project timeline, and 6) a budget (see Attachment C). At minimum, these tasks shall include:

1. **Site Visit and Data Collection:** The Energy Consultant shall conduct a walk-through audit (ASHRAE Level I equivalent) of the Tenant Office Space to identify energy savings opportunities, conduct interviews with the appropriate staff members, and collect the Tenant's energy bills and all other data necessary to conduct the energy assessment.
2. **Benchmarking:** The Energy Consultant shall benchmark the Tenant's energy consumption through to determine the Office Space's energy use intensity.
3. **Identification of energy conservation opportunities:** The Energy Consultant will identify low/no-cost measures and operational improvements in the Tenant Office Space that will yield energy savings in a cost-effective manner. Potential capital improvements should also be identified.
4. **Energy savings analysis:** For all identified energy conservation opportunities with quantifiable energy efficiency impacts, the energy and cost savings, implementation costs and payback periods will be calculated. Based on the analysis, the Energy Consultant shall provide guidance on goal setting and prioritization of energy efficiency measure implementation. Any identified capital cost measures will be described in qualitative terms, with recommendation for further study or guidance on best practice measures where appropriate. Directional energy and cost savings, implementation costs and payback periods should be provided for these capital measures.
5. **Final report:** The Energy Consultant shall develop a draft report containing the final energy efficiency recommendations, basic simple payback information, and a plan to guide the Tenant's next steps in achieving higher levels of energy efficiency. Specifically:
 - o A summary of the recommendations will be presented in a project summary table.
 - o All assumptions and/or background data used to generate savings for identified energy conservation measures will be described in the report.
 - o All supporting calculations and generalizations will be submitted.
 - o The Basic Energy Assessment Report Checklist (Attachment D) must be attached to the final report.

For more information on final report requirements, refer to Attachment D.1 (Final Report Requirements)

The Energy Consultant must submit all deliverables outlined above to the NYSERDA Project Manager via the online application portal. A Technical Reviewer will also review the deliverables and comments will be provided to the Energy Consultant within fifteen (15) business days of receipt of each deliverable. The Energy Consultant shall prepare revisions to the deliverable reflecting the NYSERDA Project Manager's comments and resubmit the revised deliverable within fifteen (15) business days after receipt of comments. If the deliverable is acceptable, the NYSERDA Project Manager shall provide final approval.

A scope of work template is provided below as guidance. To ensure your projects are approved in a timely manner, please include the information in the format below. While the exact format of the scope of work template is not required, all information requested within the scope of work template must be included in some form in the project scope of work.

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SCOPE OF WORK TEMPLATE

(This template is provided as a guide as is not required)

Introduction

- o *Project background and a brief description of your company as the primary energy consultant.*
- o *If any subconsultants are engaged on the project, provide a breakdown of roles and responsibilities for each party.*
- o *Clearly state which project type you are pursuing (basic, custom or generic high performance project).*
- o *Brief background on tenant motivation for conducting the audit and expected outcomes*

Site Description

Basic overview of the site to include:

- o *Building description, including square footage*
- o *Site address (tenant space)*
- o *Tenant space type (e.g. office space; office space with a data center)*
- o *Description of the energy-using systems that serve the space*
- o *Breakout of tenant space(s) and square footage*

Tasks

- o *List all tasks to be carried out as part of the project. At minimum, all tasks listed in the Scope of Work Requirements listed above should be included.*
- o *Briefly describe your activities associated with each task.*
- o *Include a list of systems and preliminary energy conservation measures that will be investigated. Discuss type of improvements identified (e.g. capital improvements vs. low-cost/ no-cost).*
- o *With respect to the Energy Savings Analysis: include a description of the analysis that will be conducted, including energy efficiency impacts, cost savings, and payback periods.*

Deliverables

Briefly describe the deliverables for the project and ensure they align with the tasks and requirements listed in the Scope of Work Requirements above. For further guidance on final report requirements, refer to Attachment D.1 (Final Report Requirements).

- o A draft report must be submitted for review and comment by NYSERDA and the Technical Reviewer assigned to the project. A final report addressing all comments must then be submitted for approval.

Schedule

Please include a project schedule (sample table below), including preliminary dates for all deliverables.

Task	Anticipated Completion Date

Budget

Please include a detailed project budget, following the budget template provided in Attachment C (Proposed Budget Template). If conducting a multi-site project, include a site-by-site budget as well as a total, rolled up budget, clearly indicating the total project cost and the requested NYSERDA cost-share.