Purpose & Overview: Local Law 97/19, as amended by Local Law 154/21, requires every building to reduce its annual greenhouse gas emissions. The Mayor's Office of Sustainability requires that projects that are undergoing electrification have their Carbon Savings reported, and thus Energy Modeling is to be performed on these projects to provide the data to Capital Plan Management.

- Each existing building electrification project will require energy modeling at the **100%** phase.
- In-house Studio Projects: Modeling will be performed by a selected Technical Standards & Support (TSS) unit sustainability consultant and peer reviewed by a selected TSS sustainability consultant.
- DCMS-Managed Projects: Modeling will be performed by the DCMS project consultant or their energy modeling subconsultant and peer reviewed by a selected TSS sustainability consultant.

1. Steps/Components

The Components of this procedure consist of:

1.1. Energy Modeling
1.2. Submission
1.3. Peer Review

2. Procedures

2.1. Energy Modeling

- The Design Team's modeler shall utilize the **100%** design documents and create the energy models.
- The team is to perform the energy model in eQuest and shall use the eQuest existing building electrification guide and modeling templates to provide consistency and to streamline the energy modeling process.

2.2. Submission

2.2.1. For Consultant designed projects, the design team shall notify TSS via SCA-MRC-Submissions@nycsca.org of the selected energy modeler. The Designer for both in-house and consultant design projects shall notify TSS when the 100% **drawings** are being submitted **for energy modeling**.

- All existing building electrification energy model submissions and inquiries should be emailed to: SCA-MRC-Submissions@nycsca.org.
- All electronic existing building electrification energy model submissions shall include:
  - File path to design phase drawings or dropbox location

- Energy model submission
- Existing Building Electrification Report Template and Savings Calculator
- Associated files (model output reports) – (in .SIM files format)
- Any custom performance curves utilized and referenced

2.2.2. At completion of the **100% phase**, an energy model and associated templates shall be submitted.

2.2.3. Submission Schedule: The energy model submission **shall** be emailed within 2-3 weeks of the design phase drawing completion.

2.3. Peer Review

- The **100%** phase energy model will be peer reviewed by a TSS energy modeling consultant.
- The energy modeler is to submit the following files for peer review:
  - Design Phase Energy Model
  - Associated construction documents
  - Associated files (model output reports) – (in .SIM files format)
  - Any custom performance curves utilized and referenced
  - Existing Building Electrification Report Template and Savings Calculator
- Peer review comments will be submitted within 10 days of receipt of the energy model submission.
- The energy modeler is to provide responses to each of the peer review comments within 5 days and provide the updated energy model with corresponding updates, if necessary, within another 5 days.
- If further updates are necessary and/or peer review comments have not been fully addressed, the energy modeler and peer reviewer will continue the above outlined process and if needed, a meeting will be held.

4. **Responsibilities by Role**:

4.1. The A&E Design Project Manager shall:

4.1.1. Include TSS Sustainability Unit in scope and design meetings.

4.1.2. Ensure design team/TSS Sustainability Unit engages an energy modeler at the beginning of the project and informs the energy modeler of modeling templates and procedure.

4.2. The Designer shall:

4.2.1. Engage an energy modeler to perform modeling at **the 100%** phase utilizing the required templates and forms. **For in-house projects, provide the documents to the TSS Sustainability Unit to engage an energy modeler.**

4.2.2. Review peer review comments and provide responses. Incorporate appropriate revisions.

4.2.3. Complete all calculators and submit final forms to TSS Sustainability Unit.

4.3. The TSS Sustainability Unit shall:

4.3.1. For in-house projects, select an energy modeling consultant to perform energy modeling at the **100%** phase.

4.3.2. For in-house and consultant designed projects, assign a peer reviewer to review the model.

4.3.3. Collect the forms from the design teams and report the energy use and carbon savings to Capital Plan Management.

5. **Forms and Documents**

Guides and templates can be found on the SCA website at the following link: http://www.nycsca.org/Design/Existing-Building-Sustainability

- eQuest Modeling Guide for Existing Building Electrification
- Existing Building Electrification Report Template
- Existing Building Electrification Report Sample
- Existing Building Electrification Savings Calculator
- Existing Building Electrification Savings Calculator Sample