INCENTIVE RULES & REQUIREMENTS

NEW CONSTRUCTION & MAJOR RENOVATION OBJECTIVE

Hawai'i Energy has traditionally provided prescriptive rebates for new construction projects using the relevant building energy code as a baseline. In an effort to identify new construction projects and target building owners and developers earlier in the design phase, Hawai'i Energy has decided to offer a 'Savings-by-Design' approach similar to California where customers are incentivized to incorporate energy models throughout the design process to come up with a cost effective design before construction begins.

Hawai'i Energy will work with customers who have new construction projects (*new building and existing building major renovations*) to ensure energy models meet the intent of the rebate and that considerations for energy efficiency have been made.

ELIGIBLE PROJECTS

Eligible customer types or project types include the following:

- Commercial and/or multifamily new build
- A major renovation of an existing structure
- A major change in occupancy type
- An addition to an existing facility

New construction and/or major renovation projects qualify for a rebate at various stages in the construction process. We define those stages as:

1. Conceptual Schematic
2. Design Development
3. Construction Phase
4. Post-Construction
5. Close-out/Turn-over

In the first two stages, Conceptual Schematic and Design Development, your project will take an Energy Model Approach (EMA) to receiving a rebate.

Once construction has begun, adjusting the design based on the results of an energy model becomes unfeasible, and thus we take a Systems Approach (SA) to calculating energy savings and providing a rebate.

ENERGY MODEL APPROACH (EMA)

A holistic analysis of building's design performance which leverages the interactive efficiency effects to various systems during the conceptual or schematic development stage of the design.

Requirements

Project is in the Conceptual Schematic or Design Development stage.

- All projects must show a minimum of 10% design efficiency over a base code design (alternate design based off 2015 IECC code).
- Energy models must simulate whole building performance showing design/floor plan, estimated electricity consumption and provide energy and demand calculations with the source of input parameters. Reports that meet the above are accepted from software such as DOE2 eQUEST, EnergyPlus, OpenStudio, BEM Project Portfolio, Carrier HAP, Trane TRACE, and/or other Hawai'i Energy approved modeling software.

Incentive Amount

The incentive is calculated based on the predicted savings reported by the energy model. The overall incentive is calculated and paid across three milestone stages:

- Energy Model: Up to $5,000 toward the cost of the energy model and report.
- Energy Model Report Presentation: $1,000 for Building Owner/Developer (BO/D) and $1,000 rebate for Architect/Design Team (A/DT) to discuss the different energy options presented in the Energy Model report.
- Post-Construction: Energy saving rebate calculated at $0.12/kWh based off the energy savings predicted by energy model, capped at $150,000. In addition, a demand savings incentive at $125/kW is factored in the final incentive.

Note: As of September 2020, for comparison, the total EMA incentive has historically ranged from $1.00 - $1.35 per ft^2 for office buildings.

Application Process

1. Complete and submit via email to ramosed@leidos.com:
   - Completed and signed Hawai'i Energy Commercial Incentive Application
   - Completed and signed IRS Form W-9
   - Status of Project (Select current project phase that is most applicable from the list below)
     - ❖ Conceptual Schematic
     - ❖ Design Development
     - ❖ Construction Phase
     - ❖ Post-Construction
     - ❖ Close-out/Turn-over

2. Kick-off Meeting

The Building Owner/Developer and Architect/Design Team meets with Hawai'i Energy to discuss project details, program timeline and expectations.

3. Provide schematic or conceptual drawings for the following:
   - Electrical Plan (including Lighting Schedule)
   - Mechanical Plan (including Equipment Schedule)
   - Architectural Plan
   - Other efficiency equipment measures specifications
4. Provide estimated project cost (Vendor/Sub-contractor quote, if available):
   - Lighting works
   - Mechanical (HVAC) works
   - Other Equipment/measures (i.e. Solar Water Heating, Garage Demand Ventilation Control, etc.)
5. Energy Model Process

After the Kick-off Meeting the Architect/Design Team will complete an energy model for the project and provide a written report to the Building Owner/Developer and Hawai'i Energy.

a. Energy Model Report

- Provide all inputs and assumptions
- At least 10% more energy-efficient by design over the base code (2015 IECC) verified by the energy model
- Must simulate whole building performance showing design, floor plan, estimated electricity consumption (minimum code design and actual planned design)
- Report must provide energy and demand calculations with the source of input parameters for the following:
  - Baseline Model
  - Design Optimization
  - Energy Code Compliance

b. Energy Model Collaboration

Architect/Design Team proceeds with design process and submits final design and energy model reports with expected project savings to Hawaii Energy. Hawai'i Energy will review model assumptions and outcomes, working to verify reasonability of the energy model compared to IECC 2015 code. Once agreed upon, Hawai'i Energy will provide up to $5,000 for the energy model rebate to Architect/Design Team. After the presentation and collaboration of final energy model to Hawai'i Energy and Building Owner/Developer, $1,000 energy model collaboration incentives will be paid.

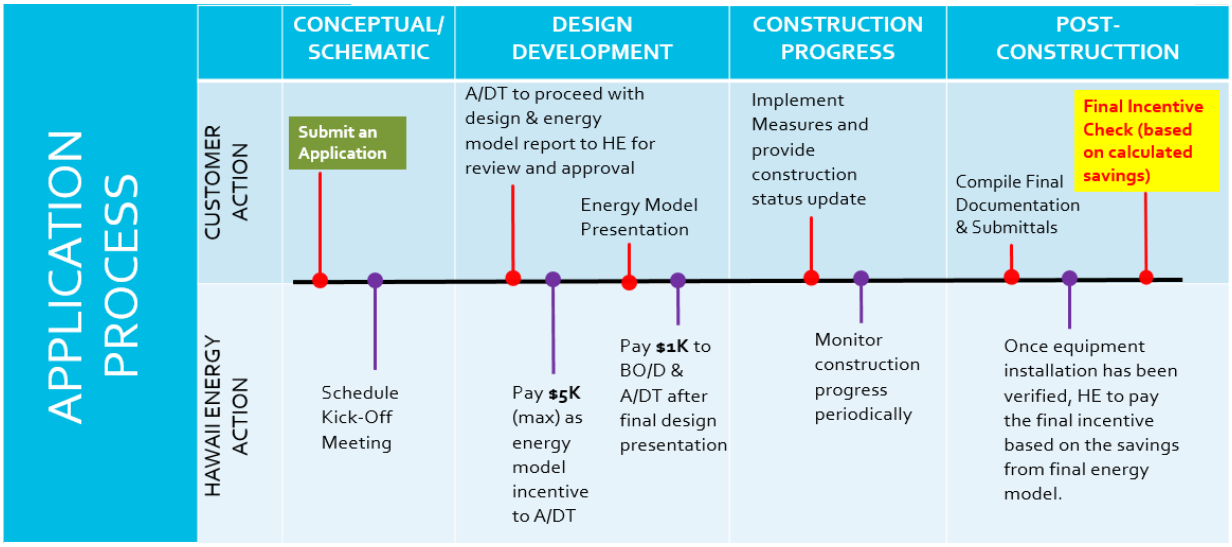
6. Complete Project Design, Permitting and Construction Start

7. Post-Construction

Once the energy efficiency measures have been installed, an electronic copy of the final completed drawing (*or As-built set*) must be provided to Hawai'i Energy in order to confirm that equipment was installed per the energy model inputs. Major deviations from the model inputs will affect previous rebate estimates. Engineering calculations may be requested or conducted to re-calculate energy savings. In some cases, an updated energy model may be requested in order to re-calculate the energy savings.

Once the savings calculations are approved by Hawai'i Energy, the final rebate will be paid based on the final calculated predicted energy savings from the final energy model.

The following diagram illustrates the general application and rebate process for EMA New Construction & Major Renovation projects. It is intended for illustrative purposes; actual process and submissions may differ on an individual project basis.



SYSTEMS APPROACH (SA)

A straightforward method to encourage designers to identify potential energy efficiency options within a specific system and to incorporate these options in the equipment selection for a project during the construction phase.

Requirements

Project is in the Construction Phase, Post-Construction, or Close-out/Turn-over stage.

- Building design and construction must be code compliant.
- Lighting systems require a COMcheck® or similar energy computation report comparing code minimum to the installed actual watts/ft^2
- All other equipment measures must exceed Hawai'i Energy minimum efficiency requirements and product compliance with industry tests and standards (e.g. AHRI certification). These can be found on Hawai'i Energy's website under the business incentives section.

Incentive Amount

- Lighting is calculated at $0.12/kWh based off lighting power density difference from energy computation report comparing code minimum to the installed actual watts/sq. ft.
- All other equipment measures must qualify through standard Hawai'i Energy prescriptive or custom requirements.
    - Prescriptive rebates can be found on the Incentives page of the Hawai'i Energy website
    - Custom rebates are calculated at $0.12/kWh based off energy savings and $125/kW for demand reduction. Custom rebate worksheets can be found at the Custom Project Support page.

Application Process

1. Complete and submit via email to ramosed@leidos.com:

    - Completed and signed Hawai'i Energy Commercial Incentive Application
    - Completed and signed IRS Form W-9
    - Status of project (select current project phase that is most applicable from the list below)
        - ❖ Conceptual Schematic
        - ❖ Design Development
        - ❖ Construction Phase
        - ❖ Post-Construction
        - ❖ Close-out/Turn-over

2. Compile Documentation

    a. As-built Drawings
        The customer, building owner, or General Contractor must submit As-built drawings and equipment specifications for the systems that are being applied for to receive a rebate. This may include the following:
        i. Electrical Plan (including Lighting Schedule)
        ii. Mechanical Plan (including Equipment Schedule)
        iii. Architectural Plan
    b. Equipment Specifications
        i. Lighting & HVAC Equipment Specifications
        ii. Other efficiency equipment measures specifications
    c. Industry compliance documents
        i. COMcheck® or similar energy computation report
        ii. Other equipment compliance documents (e.g. AHRI certificate)
    d. Estimated project cost (Invoice/proof of purchase, if available):
        i. Lighting works
        ii. Mechanical (HVAC) works
        iii. Other equipment/measures (i.e. Solar Water Heating, Garage Demand Ventilation Control, etc.)

3. Work with Energy Advisor for additional documentation as needed.

4. Receipt of Final Incentive Check

    Hawai'i Energy to reward final incentive based on the calculated savings per system.

The following diagram illustrates the general application and rebate process for SA New Construction & Major Renovation projects. It is intended for illustrative purposes; actual process and submissions may differ on an individual project basis.