SUSTAINABLE AFFORDABLE HOUSING FUNDING ROADMAP

FUNDING PHASES

|PLANNING PHASE 🔞

The planning phase grant offers support to housing providers wishing to initiate a retrofit energy project or develop a new energy efficient building. The grant can help assist with various activities such as project initiation, needs assessment, basic financial assessment, stakeholder engagement activities, evaluation of energy-efficient approaches, etc.

STUDY PHASE

The study phase grant offers support to affordable housing providers to complete the various assessments and pre-construction studies required for Sustainable Affordable Housing capital financing or other similar funding programs. This grant can be used any time preconstruction to assess implementation approaches and evaluate the environmental, economic and social impacts and outcomes of your project.

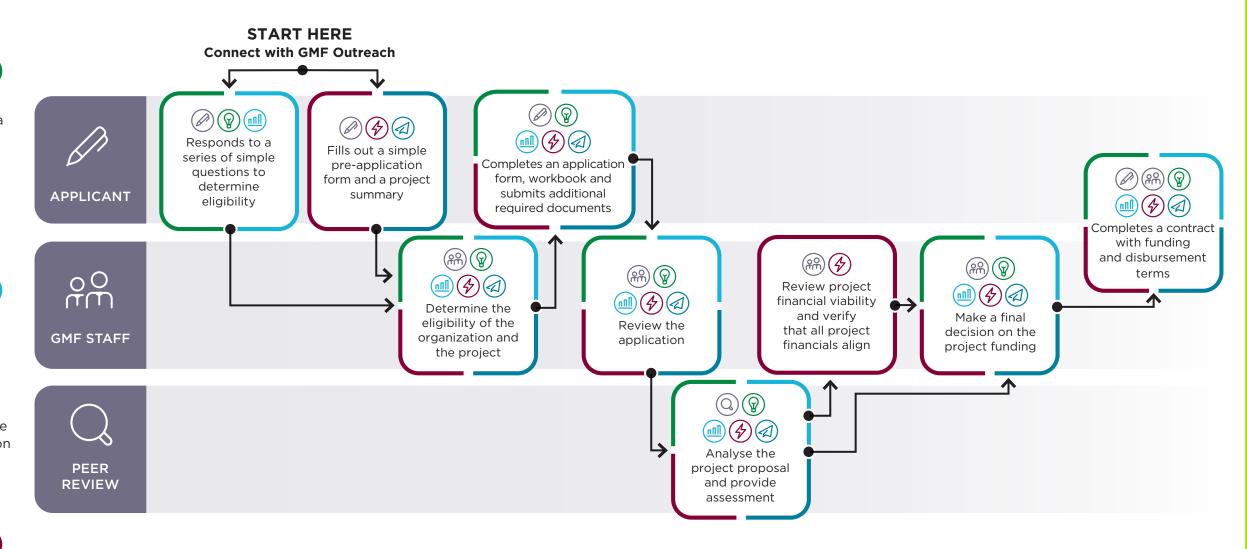
CAPITAL PROJECTS **②**

The capital project financing offers support to affordable housing providers for retrofitting existing buildings to high energy efficiency standards and for the construction of new net zero energy buildings.

PILOT PROJECTS @

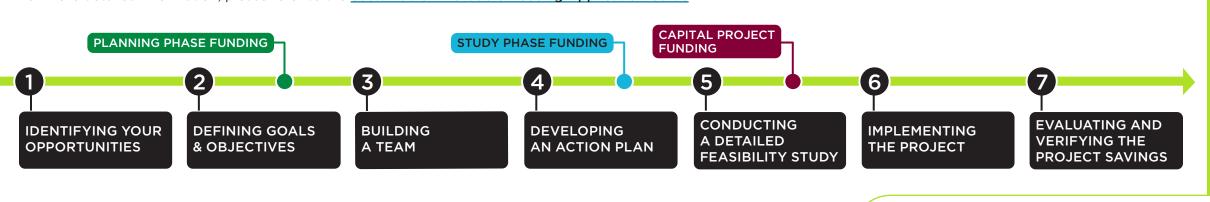
Pilot grants provide funding to test innovative and ambitious technical, process or business model solutions to improve environmental outcomes. Pilot projects are expected to exceed SAH's energy thresholds and achieve significant GHG emissions reductions.

The timing of each phase depends on the scope of the project.



ENERGY CONSERVATION MEASURE (ECM) PROCESS

For more detailed information, please refer to the Sustainable Affordable Housing Application Guide.







ENERGY CONSERVATION ROADMAP PROCESS

The ECM roadmap below provides an overview of the actions required for each step and provides an example of how it would be applied to a capital retrofit project for an existing building. For new builds, steps 1-3 of the ECM roadmap will still apply. New buildings have to prioritize a holistic approach for design and construction, taking into account all the variables, details and interactions that influence energy consumption. To adapt the ECM roadmap process to new builds, the development of an action plan and the feasibility study (step 4 and 5), will be replaced by a construction and design study plan, and the project implementation (step 6) will be replaced by the construction phase.

PLANNING PHASE FUNDING

IDENTIFYING YOUR OPPORTUNITIES

The first step is conducting a thorough inspection of your facility. This initial phase aims to identify opportunities for saving energy and reducing greenhouse gas (GHG) emissions.

We recommend reaching out to a **Regional Energy** Coach, who can provide expert support in pinpointing key energy efficiency opportunities.

Focus areas for the inspection include the building's lighting, heating, and ventilation systems, where significant improvements are often possible.

EXAMPLE

This could include in-depth analysis of 36 months of energy consumption data. This historical data review is essential to understanding the building's baseline energy usage patterns and identifying areas with the highest potential for energy savings and GHG emission reductions.

DEFINING GOALS & OBJECTIVES

The second step focuses on defining clear goals and objectives for your energy conservation project. This step is crucial to ensure the project aligns with both the public and internal energy targets of your organization.

Establish both short-term and long-term priorities collaboratively, involving all key decision-makers in the organization. This includes the board of directors. whose support is vital.

It's essential to demonstrate the project's relevance and potential benefits to secure their endorsement and commitment.

EXAMPLE

A common example of a goal would be to reduce building GHG emissions by more than 50% and energy consumption by more than 30%.

STUDY PHASE FUNDING

BUILDING A TEAM

This step is centered on building an effective team. Assemble a group comprising engineers, contractors and architects to address the technical facets of your project, focusing on equipment installation and other specifics.

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Additionally, include support staff who interact with the building daily, as their insights are invaluable for practical applications.

This step also involves the pre-selection of Energy **Conservation Measures** (ECM), laying the groundwork for the project's implementation phase.

EXAMPLE

- 1. Replacement of the natural gas water heater with an electric water heater.
- 2. Replacement of all lighting systems with LEDs.
- 3. Installation of a heat pump. (May not be suitable for climates below -25 °C).
- 4. Installation of a heat recovery ventilator (HRV).

DEVELOPING AN ACTION PLAN

This step involves developing a comprehensive action plan. Begin by pre-selecting suitable ECMs and exploring various financing options.

This should include a detailed analysis of the feasibility study conducted by an engineering firm or consultant. This analysis is critical for the team to make informed decisions on the final selection of ECMs, taking into consideration both financial and technical aspects.

Additionally, utilize the energy project life cycle cash flow calculator at this stage to evaluate the impact of project costs on the organization's cash flow. This holistic approach ensures a balanced and strategic action plan.

EXAMPLE

Analysis led to selection of ECM 1, 2 & 3.

CONDUCTING A DETAILED FEASIBILITY STUDY

CAPITAL PROJECT

FUNDING

This phase involves obtaining precise estimates of your project's costs, potential energy savings, and greenhouse gas (GHG) reduction impacts.

Additionally, it's important to evaluate both the environmental and social impacts of the project. Part of this step includes establishing a robust Measurement & Verification Plan to track progress and outcomes.

Also, ensure thorough planning for the project across its life cycle, clearly assigning roles and responsibilities to support the project's successful implementation and sustainability.

EXAMPLE

Selection of an energy service company (ESCO) following a call for tenders or a request for quote (RFQ).

IMPLEMENTING THE PROJECT

This step includes finalizing and signing all necessary contracts. Following this, proceed with the installation of the required equipment and the implementation of the selected ECMs.

This step is crucial as it transforms the planning and strategies of previous steps into tangible, on-theground actions, marking a significant milestone in the project's lifecycle.

EVALUATING AND VERIFYING THE PROJECT SAVINGS

This step focuses on evaluating and verifying the project savings, by undertaking a thorough inspection of your facility to validate the effectiveness of the implemented energy-saving measures and their impact on reducing GHG emissions.

It also includes the precise calculation and verification of these energy savings and GHG emissions reductions. These assessments are conducted by measurement and verification (M&V) experts, ensuring accuracy and credibility in quantifying the project's success and impact.

EXAMPLE

Tracking building consumption with the help of a building energy monitoring system: Get started on energy monitoring to lower costs and emissions.

*The search for funding can begin as early as stage 2, once the objectives have been defined, and it can continue right up to the implementation stage. To help you in your search for funding, GMF has created a Sustainable affordable housing funder list.



