

# The City of Calgary's Clean Energy Improvement Program Background

## Background

### CEIP Overview

The Clean Energy Improvement Program (CEIP) is a financing program designed to make energy efficiency and renewable energy upgrades more accessible to homeowners. CEIP leverages an innovative financing solution known as Property Assessed Clean Energy (PACE), which allows property owners to access flexible, long-term financing through their municipality. Repayment is facilitated through an added charge to the participant's regular property tax bill.

*Bill 10: An Act to Enable Clean Energy Improvements* was passed on June 6, 2018. The Act authorizes municipalities to complete a borrowing to finance projects and recover costs through the municipal property tax system. The attendant regulation (Clean Energy Improvements Regulation) came into force on January 1, 2019. On February 11, 2021, through Ministerial Order, the Minister of Environment and Parks designated the Alberta Municipal Services Corporation (AMSC) as the program administrator for CEIP.

### CEIP in Calgary

The City of Calgary published the Climate Resilience Strategy and Mitigation and Adaptation Plans in 2018. The Strategy provides the direction for climate resiliency in Calgary and the Mitigation Action Plan identifies the actions of The City to enable the reduction of emissions and support the low carbon economy.

The Mitigation Action Plan identifies five major themes to manage Calgary's energy use and help limit climate change. Buildings and Energy Systems is one of the themes highlighted as buildings and homes make up almost 65 per cent of greenhouse gas (GHG) emissions in Calgary. Thirteen actions have been identified within the Buildings and Energy Systems theme to drive tactics and activities on GHG emission reduction initiatives. One of these actions is to 'enable innovative financing mechanisms to fund improved energy performance'. Enabling and launching the Clean Energy Improvement Program in Calgary is a first step in moving this action forward.

In March 2020, in response to the economic challenges and impacts of COVID-19, Calgary's Council approved the creation of the Economic Resilience Task Force (ERTF). The ERTF provided recommendations for four economic recovery programs to attract investment, create jobs, and drive economic growth. One of the four programs included green investments and financing.

A significant portion of the buildings that will exist in Calgary in 2050 have already been built today, therefore, energy performance of the existing building stock will need to improve through energy efficiency of equipment and energy conservation through improved building envelopes. Despite the economic benefits, there are other barriers to renovating buildings to improve energy performance. The Green Investment & Financing Program aims to tackle one key barrier – access to capital. The Clean

Energy Improvement program has the support of the ERTF to be developed and launched in The City to support building retrofits and drive economic growth.

The objectives of the Clean Energy Improvement Program in Calgary include:

- Offer an innovative financing mechanism to support property owners to go beyond current energy standards and complete retrofits to reduce GHG emissions and generate energy cost savings.
- Generate opportunities for energy efficiency and renewable energy professionals to participate in a City of Calgary program and provide services to Calgary property owners.
- Provide a foundation for low carbon financing in The City of Calgary to drive economic growth and create jobs.

## Benefits of the Program

There are a variety of benefits generated through energy efficiency and renewable energy programs.

### Reduced Barriers

Programs like CEIP reduce the upfront cost barriers of energy efficiency and renewable energy upgrades making energy renovations more accessible. Additionally, households experiencing high energy cost burdens, usually referred to as energy poverty<sup>1</sup>, benefit from programs that support energy saving upgrades and reduce barriers to entry.

### Comfort and Safety

Upgrading the energy efficiency of properties can lead to better air quality (reducing cardiovascular and respiratory issues), better temperature regulation and thermal quality, and more comfortable living spaces.<sup>2</sup>

### Energy and Cost Savings

Energy efficiency upgrades reduce the energy consumption and GHG emissions of buildings. This reduction in energy needs translates into energy cost savings for property owners or renters. These energy cost savings increase the disposable income of energy consumers.

### Economic Growth

Energy efficiency and renewable energy programs have been shown to generate economic growth in the region where the programs are implemented as well as upstream and downstream. Research on investments into energy efficiency programs in Canada have shown that 16-30 jobs created per \$1 million invested.<sup>3</sup> These jobs are created locally through contractors and businesses providing installation services as well as through the supply chain (e.g., manufacturing) and through additional spending in the economy due to increased income of workers and increased energy savings for participants.

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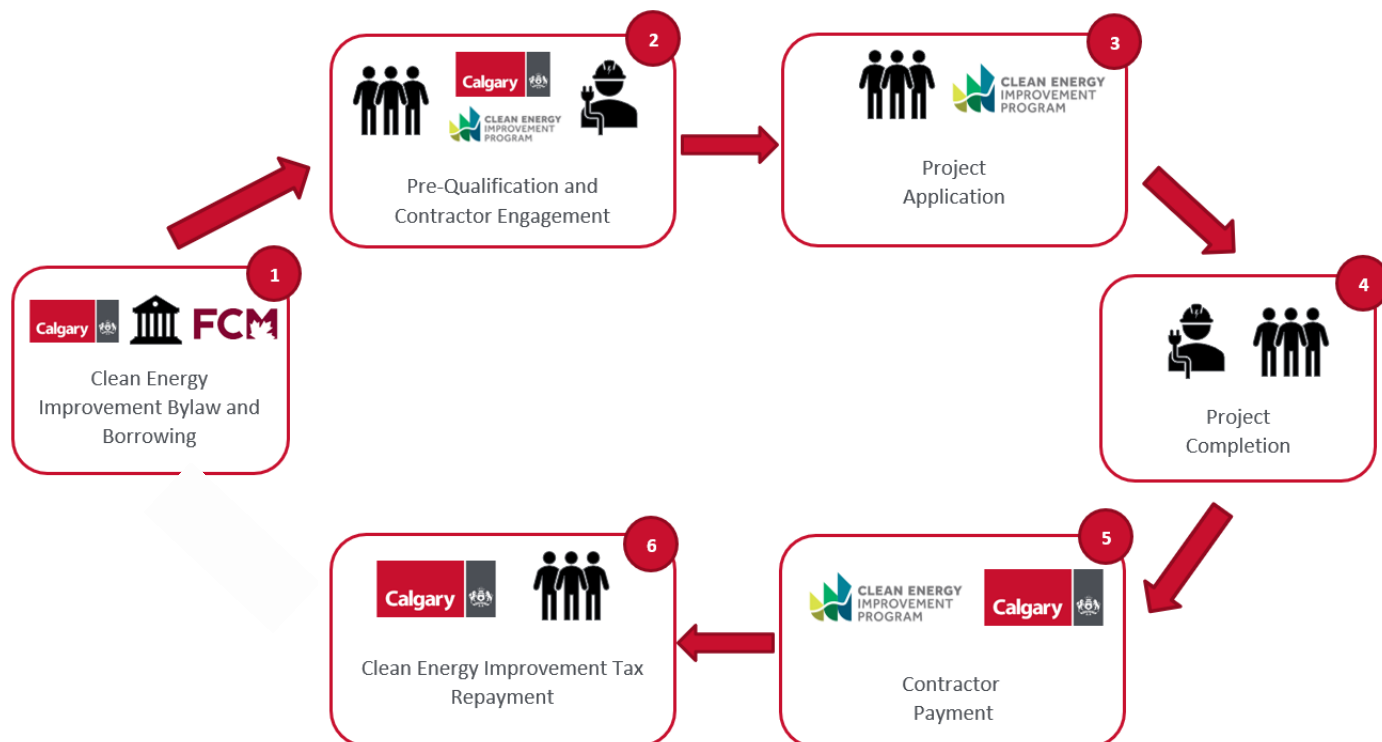
<sup>1</sup> Energy Poverty in Canada: a CUSP Backgrounder, CUSP, October 2019, [backgrounder.pdf \(energypoverty.ca\)](#)

<sup>2</sup> Multiple Benefits of Energy Efficiency: Health and wellbeing, International Energy Agency, March 2019, [Health and wellbeing – Multiple Benefits of Energy Efficiency – Analysis - IEA](#)

<sup>3</sup> The Economic Impact of Improved Energy Efficiency in Canada, Dunsky Energy Consulting, April 3, 2018 [Economic-Impact-of-Pan-Canadian-Framework-Energy-Efficiency.pdf \(efficiencycanada.org\)](#)

Energy Efficiency Alberta achieved triple the return on investment for the programs delivered in Alberta from 2017 to 2020.<sup>4</sup> Similarly, from 2009 to 2011 the United States invested in building upgrade programs that delivered \$2 in energy cost savings for each \$1 invested.<sup>5</sup>

## Program Delivery Processes



### Program Delivery Steps

#### 1. Clean Energy Improvement Bylaw and Borrowing

The City of Calgary can pass a bylaw to establish the program and enable clean energy improvements to be made to properties as well as authorize the borrowing for financing clean energy improvements.

Once the bylaw is passed and the borrowing is secured the program can launch to eligible property owners.

#### 2. Pre-Qualification and Contractor Engagement

To initiate an application to the program, a property owner will submit a pre-qualification form to the AMSC. This initial application will be used by The City and the AMSC to confirm the property is eligible for the program. Both the AMSC and The City will complete a review of the application and once confirmed as eligible the property owner will be notified that they may submit a Project Application.

<sup>4</sup> Annual Report 2019-2020, Energy Efficiency Alberta, Energy Efficiency Alberta 2019-2020 Annual Report

<sup>5</sup> Energy efficiency and economic stimulus: IEA strategic considerations for policy makers, International Energy Agency, April 8, 2020, Energy efficiency and economic stimulus – Analysis - IEA

### **3. Project Application**

Prior to submitting a Project Application, the property owner will have an EnerGuide Home Energy Evaluation completed on the home by an NRCan certified Energy Advisor. The property owner will use the results of this evaluation to choose eligible clean energy improvements to complete on the property. The property owner will choose one or more contractors from the AMSC's list of qualified contractors to obtain a quote and complete the Project Application Form.

The Project Application Form will be submitted to the AMSC and reviewed to ensure all proposed clean energy improvements meet the program eligibility requirements. The maximum financing that can be accessed for a single project is limited by two factors: (1) the property owner's current annual property tax payment, and (2) the program financing limits for residential properties (\$50,000 per property as defined in the legislation).

If approved, the property owner will enter into a Clean Energy Improvement Agreement with The City based on the clean energy improvements and the associated costs submitted in the Project Application Form. The property owner will also enter into a Project Agreement with the AMSC and the qualified contractor(s).

### **4. Project Completion**

The qualified contractor will complete the installation of the clean energy improvement and provide the required documentation to the property owner to submit to the AMSC. The property owner will submit an Upgrade Completion Form to the AMSC confirming the clean energy improvement was installed and the final costs of the upgrade. A post retrofit NRCan EnerGuide home evaluation would be required once all approved improvements are installed.

### **5. Contractor Payment**

The contractor will receive payment for the costs submitted in the Upgrade Completion Form. The property owner is responsible for paying the contractor directly for any costs not eligible and approved in the program.

### **6. Clean Energy Improvement Tax Repayment**

The City will place a Clean Energy Improvement Tax (or Clean Energy Improvement Charge) as set out in the Clean Energy Improvement Agreement on the property's property tax roll once the payment is made to the contractor.

When the property owner receives the next year's property tax notice, the Clean Energy Improvement Tax will be included as a separate line item. The property owner would then repay the Clean Energy Improvement Tax through their normal property tax payment mechanism (e.g., Tax Installment Payment Plan). The property owner may repay the entirety of the Clean Energy Improvement Tax without penalty.

The City will collect the repayments and repay the lender as per the terms of the lending agreement.

## Program Launch Timeline



## Federation of Canadian Municipalities: Community Efficiency Financing Program

### Overview

The Federation of Canadian Municipalities Green Municipal Fund's Community Efficiency Financing initiative supports innovative financing models like PACE, utility-bill financing, and third-party lending. The initiative provides grants, low interest loans, and credit enhancements to municipalities looking to design and launch financing programs. The federal government provided \$300 Million to the initiative and approximately \$50 Million is available annually.

The CEF program has four main funding streams:

1. Study Grant
2. Pilot Grant
3. Capital Program: Loan and Grant
4. Capital Program: Credit Enhancement and Grant

For the Clean Energy Improvement Program, The City will be applying to the third stream, Capital Program: Loan and Grant. The details of the stream are:

- Funding up to 80 per cent of eligible costs
- Loan up to a maximum of \$10 Million (interest rate estimated as 1 per cent to 3 per cent)
- Grant up to a maximum of 50 per cent of the loan amount (maximum \$5 Million)

The City would be able to apply for up to \$10 Million in a low interest loan for the program and receive an accompanying grant of up to \$5 Million. However, The City is required to have a matching contribution of a minimum of 20 per cent of the total program costs, matching can be done through cash contributions, in-kind contributions, or third-party financing.

### Application Process

1. Initial Proposal Form
2. Eligibility
3. Full Application
4. Verify and Submit
5. Project Officer Review
6. Peer Review
7. FCM Funding Decision

It is anticipated that the timeline between steps 4 and 7 is five to six months. An additional 2 to 3 months is allocated for contract negotiation after approval.

### Example Budget for FCM Application

This budget was developed as an illustrative example, through Q3 and Q4 of 2021 Administration will create a detailed budget for The City of Calgary based on the program delivery processes and responsibilities discussed internally and with the AMSC. A detailed program budget and analysis of the financial implications of the program will be included in the report when the proposed Bylaw is submitted to Council for three readings in Q4 2021. The Cover Report includes the maximum dollar value of \$15 Million in lending and the maximum \$5 Million grant available from FCM.

Preliminary estimates for the program administrative budget have been completed using budget information available from the City of Edmonton. This budget will be used for the application to the Federation of Canadian Municipalities Program. An average project size of \$20,000 was used for this estimate totalling 750 properties to be financed through the program.

Total Program Costs	Amount	Assumptions
Financing	\$13,600,000	\$15M less incentive budget (\$1.4M)
Program Operations	\$5,115,000	
<b>Total Program Costs</b>	<b>\$18,715,000</b>	

In this example, the total program cost is less than the maximum \$15 Million in financing and \$5 Million in grant funds (i.e., \$20 Million maximum) as FCM requires any grant funds that are used as incentives to reduce the total financing for the program. The total anticipated project costs for the program is \$15 Million, but the financing required for the program is reduced to \$13.6 Million by the \$1.4 Million in incentives.

Example Operations Budget	Amount	Assumptions
Administration (City of Calgary + AMSC)	\$2,360,000	Based on the estimated administration costs of the Edmonton program (split of administration costs between The City and AMSC is approximately 50 per cent)
Incentives*	\$1,400,000	Placeholder - \$1,875 per property that completes an improvement (rounded)
FCM Requirements (Audit, Program Evaluation) *	\$175,000	FCM Requirement - cost estimate is a placeholder but recommended by FCM
Loan Loss Provision*	\$680,000	FCM Requirement - calculated at 5 per cent of the total capital of the program capital requirements
Equity Project (TBD)*	\$500,000	Placeholder - Potential project for addressing equity concerns in the program (e.g., incentives, language barriers, etc.)
<b>Total</b>	<b>\$5,115,000</b>	

\*Note: If The City of Calgary does not receive FCM funding these costs would not be applicable as they are costs associated with tasks or reports required specifically for FCM's funding program.

### Contribution Sources and Limits

FCM can only contribute up to 80 per cent of the total program costs. A minimum of 20 per cent of total program costs must be supplied by the municipality in the form of in-kind contributions, cash contributions (e.g., incentives), or through a third-party funding source. The grant provided by FCM cannot exceed 50 per cent of the loan provided by FCM.

<b>Contribution Limit</b>	<b>Amount</b>	<b>Assumptions</b>
Total FCM Contribution (max 80 per cent)	\$14,972,000	This is the maximum that FCM can contribute to the program.
Total Calgary Contribution (min 20 per cent)	\$3,743,000	This is the minimum that The City of Calgary must contribute to the program.
<b>Total Program Costs</b>	<b>\$18,715,000</b>	

<b>Contribution Sources</b>	<b>Amount</b>	<b>Assumptions</b>
Calgary In-Kind/Cash Contribution	\$124,500	This in-kind contribution can be front-loaded in the program development phase (i.e., January – October 2022)
Calgary Loan Contribution	\$3,619,000	Loan will be sourced from the province or another lender based the most appropriate terms of lending
<b>Total Calgary Contribution</b>	<b>\$3,743,500</b>	Equivalent to 20 per cent of total program costs

FCM Grant Contribution	\$4,990,500	Cannot exceed 50 per cent of the FCM Loan contribution
FCM Loan Contribution	\$9,981,000	
<b>Total FCM Contribution</b>	<b>\$14,971,500</b>	Equivalent to 80 per cent of the total program costs

<b>Total Contribution</b>	<b>\$18,715,000</b>	
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Based on the illustrative costs outlined above, The City of Calgary would need to contribute \$3.74 Million to the program to be able to access the loan and grant from FCM. To minimize costs to The City, \$3.62 Million of the Calgary contribution can be sourced from a third-party lender. Finance has indicated the preferred lender is the Province of Alberta, however, there are specialized lending organizations that have built products specifically for PACE-type programs (e.g., VanCity Community Investment Bank). Through Q3 and Q4 of 2021 Administration will explore the borrowing options that best suit the needs of the program.

In addition to the \$3.62 Million in third-party lending, the remaining \$124,000 would need to be provided as in-kind contributions to the program by The City of Calgary. FCM determines costs as eligible once the full application has been submitted to FCM. The City would be able to claim the staff time in the development phase of the program (i.e., January 2022 to September 2022) as this in-kind contribution. The staff time associated with the operation of the program over the next four years would then be covered by the grant. Alternatively, The City could allocate ~\$30,000 per operational year to the program as in-kind contributions.