

Category

Debt



Geography/ Location

AB, BC, ON, SK

Municipality Size

All



Tier

Enabling



Constraints

None

Administrative Capacity Required

Medium



Fiscal Tool Brief: Energy Efficiency Loans

Energy efficiency loans help property owners finance energy-saving upgrades with low upfront costs, often repaid over time through property tax bills, utility bills, or loan payments.

Energy efficiency loans are a type of financing program designed to help homeowners, businesses, and municipalities implement projects that improve energy performance or integrate renewable energy solutions. Many of these programs operate under or are structured similarly to Property Assessed Clean Energy (PACE) financing. PACE programs allow property owners to finance energy efficiency, renewable energy, and climate-resilience upgrades and repay the cost through an assessment added to their property tax bill. This structure reduces or eliminates upfront costs, which is one of the primary barriers to building retrofits, and enables longer repayment periods that better align with the lifespan of energy improvements. Because the repayment obligation is attached to the property rather than the individual borrower, the remaining balance can

transfer to a future owner if the property is sold, which helps facilitate longer-term investments in building performance.¹

In Canada, municipalities often play a central role in administering these programs because they manage property tax systems and can integrate financing tools like PACE into local retrofit initiatives, although implementation depends on enabling provincial legislation that varies across jurisdictions. These programs aim to reduce greenhouse gas emissions and lower energy costs. They are generally offered at low or zero interest rates with flexible repayment schedules, making them more accessible to a broad range of participants. Eligible upgrades often include improved insulation, high-efficiency heating and cooling systems (e.g., heat pumps), solar photovoltaic installations, and advanced energy management technologies.^{2,3} Programs are delivered by federal, provincial, and municipal governments, utilities, and financial institutions, and can be in combination with grants or rebates to further reduce upfront barriers.



The main purpose of energy efficiency loans is to make energy upgrades accessible by reducing the upfront costs, allowing borrowers to repay through mechanisms like property tax bills, utility bills, or traditional loan payments. Many programs are structured to ensure that energy savings offset the loan repayments, creating a cost-neutral or a cost-saving outcome for participants.⁴



Examples

Different Canadian municipalities have energy efficiency loan or financing programs to improve energy performance for buildings. [Saskatoon \(SK\)](#) implemented a Home Energy Loan Program (HELP) to provide homeowners with low-interest financing to support energy efficiency upgrades, renewable energy installations, and energy reduction measures. Loan amounts range from \$1,000 to \$60,000 and can be repaid through property taxes over flexible terms of 5, 10, or 20 years.⁵ [Guelph \(ON\)](#) launched its Greener Homes program, which is a residential home energy-efficiency retrofit program that helps residents reduce emissions and make their homes more affordable. With a funding of \$15 million from the Government of Canada and FCM,⁶ the program allows homeowners to upgrade energy systems, such as solar installations, and reduce both costs and emissions. The program offers two program streams, which are the “Loan program” and the “Grant program” for low-income households.⁷ Other examples include [Toronto \(ON\)](#), [Edmonton \(AB\)](#), and [Central Saanich \(BC\)](#).

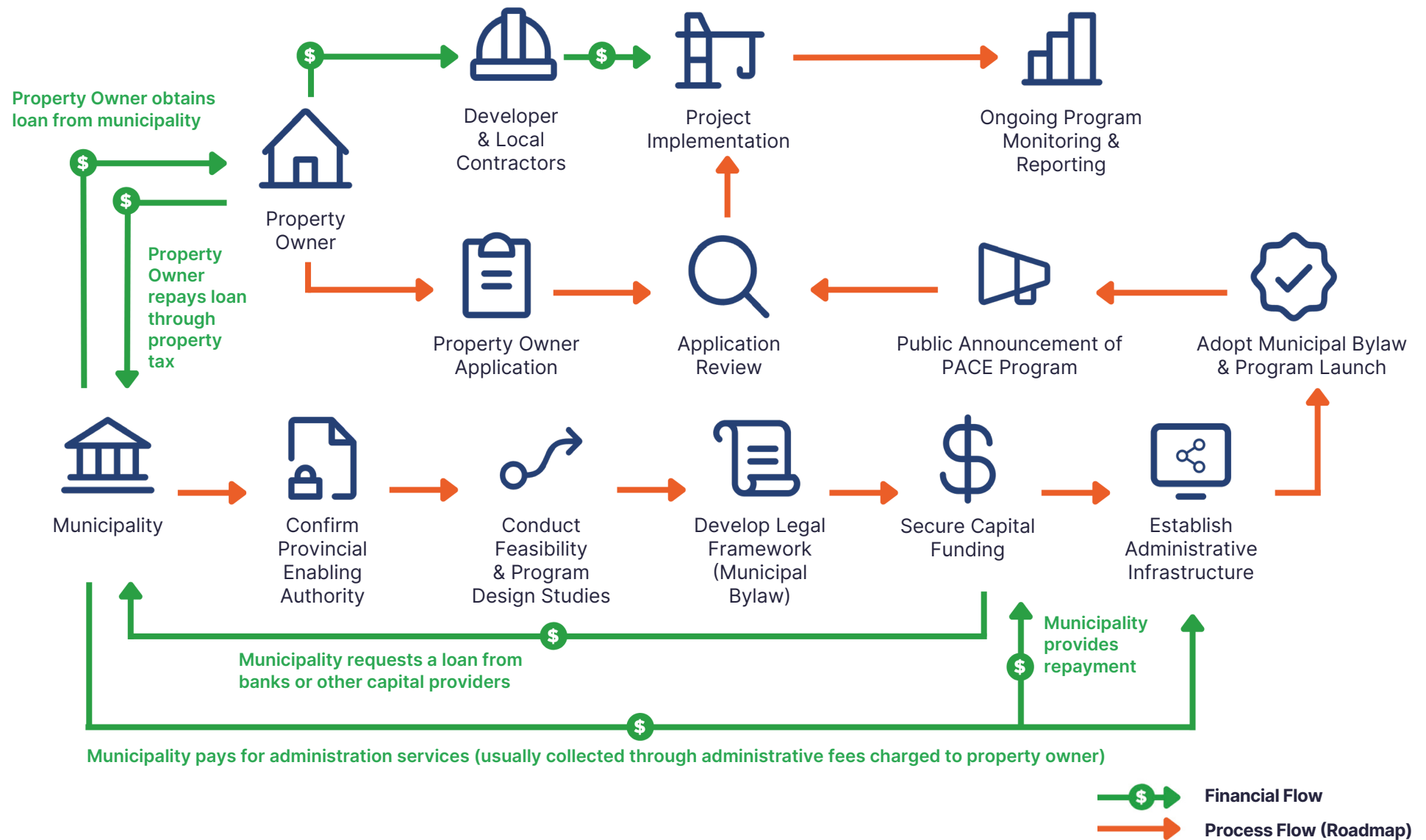


Figure 1. Visual representation of how Energy Efficiency Loans work

Relevance to Advancing Adaptation

While primarily a climate mitigation tool, energy efficiency loans can also support climate adaptation by enabling upgrades that strengthen building-level resilience to extreme weather events. For example, retrofitting buildings with high-performance insulation, energy-efficient windows, and heat pumps not only reduces energy demand but also helps maintain livable indoor conditions during heat waves or cold temperatures.⁸ Incorporating solar panels with battery storage can improve energy security during grid outages caused by storms.⁹ By implementing energy efficiency loans that can also support adaptation measures, municipalities and property owners can implement adaptation and mitigation-focused improvements efficiently, without requiring large upfront capital. This helps reduce the financial barriers for resource-constrained communities to invest in infrastructure that is more reliable under changing climate conditions.

Accessibility

Energy efficiency loan programs are generally designed to be accessible to homeowners and businesses by reducing financial barriers to energy upgrades, although access remains more limited for renters and some low-income households. Many programs offer low- or zero-interest financing with flexible repayment terms, which lowers the cost of participation compared to traditional private loans. For example, the federal [Canada Greener Homes Loan](#) provided interest-free loans of up to \$40,000 for eligible retrofits, significantly expanding access for households that might otherwise be unable to finance energy upgrades upfront.¹⁰ Municipal programs such as Saskatoon's HELP also enhance accessibility by allowing

repayments through property tax bills, leveraging existing municipal collection systems and reducing administrative burden for participants.¹¹ Accessibility can be improved when loans are bundled with grants or rebates, as seen in Guelph's Greener Homes program, which combines loan financing with grant support for low-income households to address affordability and equity concerns.¹²

However, accessibility can still be constrained by eligibility requirements such as property ownership, minimum credit requirement, and consumer proposal, which may limit participation among renters, low-income households, or communities with limited administrative capacity. These factors highlight the importance of complementary grant streams, outreach, and technical assistance to ensure equitable access across different population groups.

Moreover, accessibility also depends on the capacity of municipalities to design, administer, and sustain these programs. Developing and operating energy efficiency loan programs can require significant administrative resources, technical expertise, and coordination with financial partners, which can be challenging for smaller municipalities with limited staff or funding. Therefore, it is critical to provide funding, guidance, and technical support to help municipalities develop and scale community financing initiatives and strengthen the local capacity to deliver these programs.

Feasibility

Energy efficiency loan programs are generally feasible because proven program models already exist at multiple levels of government, although implementation depends on enabling legislation and municipal capacity. Many of the financing structures used in Canada are based on the Property Assessed Clean Energy (PACE) model, which was first developed and piloted in the United States, with early programs launched in Berkeley, California in 2007.¹³ These early demonstrations helped establish the operational and financial viability of property tax-based financing for energy retrofits and provided practical lessons that informed program development in other jurisdictions, including Canada. For example, the federal government's Canada Greener Homes Loan provided interest-free financing of up to \$40,000 with a 10-year term for energy-efficient home upgrades such as insulation, heat pumps, and windows, supporting broad participation and demonstrating practical delivery at scale.¹⁴ At the municipal level, Saskatoon's HELP offers low-interest loans repayable through property taxes over 5–20 years, leveraging existing tax collection systems to simplify repayment and reduce administrative complexity for participants.¹⁵ These kinds of loan programs can also be bundled with rebates and other incentives, which can improve uptake but add coordination requirements. For example, as seen in Saskatoon's case study where stackable rebates and additional tools such as pre-vetted contractors and energy coaching improved the uptake of such energy retrofits.¹⁶ Therefore, by building on existing structures, including federal financial products and municipal delivery mechanisms, energy efficiency loans offset the costs for energy upgrades and demonstrate both technical and administrative feasibility for widespread implementation.

Risk

Energy efficiency loan programs carry risks linked to administrative capacity, political continuity, and performance uncertainty. For example, the federal Canada Greener Homes Loan closed its intake ahead of schedule due to funding limits, exposing how shifts in political and fiscal support can abruptly alter the landscape of loan availability, undermining long-term planning and participant confidence.¹⁷ At the municipal level, high demand for energy audits and limited contractor availability in Saskatoon's Home Energy Loan Program created logistical bottlenecks, showing how administrative and technical constraints can delay project delivery and discourage participation.¹⁸ Saskatoon has improved this situation through training and relationship-building, such as offering contractors training on building envelopes and energy-efficient technologies and equipment.¹⁹ Performance risks also arise because loan repayment assumes a degree of energy savings. While energy efficiency measures often deliver cost savings, they can vary based on climate conditions and usage patterns, meaning outcomes are not uniform for all borrowers. Academic research on retrofit strategies notes that without careful design accounting for future climate and building performance variables, efficiency improvements may not deliver the expected balance of costs and savings.²⁰ These administrative, political, and technical risks suggest that comprehensive program design, clear continuity commitments, and robust feasibility assessments are important to ensure effective, equitable loan deployment.

Scalability

Energy efficiency loan programs have strong potential for scaling across jurisdictions and integrating with broader climate strategies, particularly where financing, partnerships, and administrative capacity can be sustained. For example, the federal government's Canada Greener Homes Loan program provided a nationwide model for interest-free financing of energy upgrades, demonstrating that high-impact loan products can be deployed at national scale and inspire analogous provincial, territorial, or municipal initiatives.²¹ At the municipal level, Saskatoon's work to expand from its Home Energy Loan Program to a Community Energy Loan Program (CELP) for commercial and multi-unit sectors illustrates how scalable frameworks can be extended to new building types and borrower segments.²² Scalability is further supported by the fact that energy efficiency retrofits deliver both mitigation and adaptation benefits, such as improved resilience to extreme temperatures and grid stress, enabling compelling multi-objective justification for broader program adoption and integration with climate plans.²³ By combining standardized delivery models, evolving policy support, and co-benefits across mitigation and adaptation, energy efficiency loan programs can be replicated and expanded across regions, sectors, and scales. When paired with partnerships between utilities, local governments, and financial institutions, they have the potential to achieve higher scalability and contribute to a wider impact on climate resilience.

Evaluation Matrix

Scoring: High = +1 | Medium = 0 | Low = -1

Criterion	Rating	Score	Key Evidence	Assessment
Effectiveness & Performance	Medium	0	Primarily mitigation-focused; indirect resilience benefits	Supports adaptation indirectly through building-level resilience upgrades, but is not a primary adaptation finance tool.
Economic Efficiency	Medium	0	Leverages existing systems but requires administration	Moderately efficient, though program design, partnerships, and delivery create a meaningful coordination burden.
Equity & Fairness	Medium	0	Improved access but barriers remain for renters and low-income groups	Equity outcomes are mixed because low-interest financing helps some households, but eligibility and affordability constraints persist.
Political Acceptability	High	+1	Popular due to savings, low upfront costs, and voluntary participation	Strong public acceptance is supported by clear financial benefits and a non-coercive design.
Feasibility (Admin/Legal)	Medium	0	Municipal authority to adjust property taxes via bylaws	Feasible where legal frameworks and delivery capacity exist, but implementation is uneven across jurisdictions.
Coherence (Portfolio Fit)	High	+1	Integrates with municipal budgeting and reserve funds	Aligns well with broader municipal and intergovernmental climate finance and retrofit programs.

Best Use Context

Most effective for municipalities seeking to retrofit existing buildings and improve resilience incrementally. Works best where administrative capacity exists and where utilities, senior governments, or other partners can help support program delivery and financing.

Context Factor	Relevance	Notes
Municipal Size	Medium	Applicable across sizes, but larger municipalities have greater delivery capacity.
Administrative Capacity Required	Medium	Requires program design, partnerships, and outreach capacity.
Development Pressure	Low	Not dependent on growth; applies to existing building stock.
Climate Risk Targeting	Medium	Supports building-level resilience, but not large-scale infrastructure.
Fiscal Flexibility Required	Medium	Requires upfront capital or partnerships to fund loan pools.

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