Home Energy Loan Program Design

Introduction

Public engagement, best practice research from similar Canadian property tax loan programs, and a review of similar programs already available in Saskatoon were used to design a recommended base program and options for Saskatoon's Home Energy Loan Program (HELP). Program design recommendations were reviewed by industry stakeholders, and the general public through engagement activities. An internal steering committee and a working group of experts were used to refine and evaluate the design through a Choosing by Advantages Decision Making Process. Program elements were also evaluated to ensure they complied with the eligibility requirements for the Federation of Canadian Municipalities' (FCM) Community Efficiency Financing Program.

The overarching principles used to recommend program options include:

- stakeholder preference (both residential and industry stakeholders);
- program uptake impacts;
- greenhouse gas reduction potential;
- financial sustainability;
- equity considerations;
- program complexity;
- precedence of option in other jurisdictions; and
- compatibility with existing programs within the City.

Design Process

Recommendations for some program elements have a clear best practice precedent and preference from stakeholders. These include:

- Program name;
- Participant and project eligibility;
- Use of energy audits;
- Contractor list eligibility requirements and contractor payment; and
- Minimum spending amount.

Other program elements have more complexity and required the use of a Choosing by Advantages (CBA)[1] decision making model in order arrive at the recommendations. The CBA model weighs the importance of the advantage of numerous factors for each of the program elements and included multiple meetings with staff from other City of Saskatoon (City) departments including Revenue, Finance, Sustainability and Engagement. This allowed for multiple perspectives to be taken into consideration during the recommendation process.

[1] https://www.leanconstruction.org/media/docs/chapterpdf/israel/Choosing_by_Advantages.pdf

Three program elements were determined using the CBA decision-making process. These include:

- Mandatory, voluntary, or a combination approach for a pre-vetted contractor list needs to be;
- Administration fee structure; and
- Loan terms including repayments terms and maximum loan amount.

After the recommendations were formed, they were presented to the project Steering Committee, internal Investment Committee, an internal Solicitor and project stakeholders including both industry and residential groups for final feedback and adjustments.

Design Element Recommendations and Rationale

The recommended base design elements are shown in Table 1. More information about each element, as well as the rationale for choosing the recommendation are provided in the corresponding sections.

Table 1 – Home Energy Loan Program – Base Design Elements

Section	Program Element	Recommendation
1	Program Administrator	City of Saskatoon administers the program.
2	Program Name	Home Energy Loan Program (HELP).
3	Participant Eligibility	Single-family residential property owners.
4	Project Eligibility	Energy efficiency projects, renewable energy installations, water conservation projects, and other projects. See the full list of allowable projects under the heading "Project Eligibility".
5	Use of Energy Audits	Pre & post audits required. A grant or subsidy can be used to assist with audit cost, especially for income-qualified households. Audit cost can be included in the HELP Loan.
6	Qualified Contractor List	Contractor list established by the City of Saskatoon but residents do not have to choose a contractor from the list and do-it-yourself projects are allowed.
7	Contractor List Requirements	To be on the contractor list, contractors must have a Workplace Compensation Board number, general liability insurance of at least $2M, be a registered corporation in Saskatchewan, and have completed training on the loan program.
8	Contractor Payment	City of Saskatoon pays contractors directly.
9	Loan Repayment Terms and Fixed or Variable Loan Amount.	Flexible repayment term of 5, 10, or 20 years; Fixed max loan amount (not tied to property value).

10	Loan Amount per Household	Minimum $1,000, maximum $40,000 with the ability to increase maximum loan up to $60,000 if participant can demonstrate an estimated 50% decrease in energy consumption relative to pre-retrofit performance.
11	Interest rates & Admin Fees	Residents pay a fixed admin fee of $350 to $600 plus interest equal to the interest rate paid by the City of Saskatoon.

1. Program Administrator

Recommendation: City of Saskatoon administers the program

A PACE financing program can be delivered through the municipality directly or by a third-party administrator. Regardless of the mechanism chosen, a municipality must manage the property tax history reviews during the application phase and collections of payment from participants after a project is completed. Municipalities are also responsible for registering a lien on the property and collection in a loan default situation. Other aspects such as program design and day-to-day operations can be managed by an external source.

The City is implementing the first PACE financing program in the province. Therefore, a pre-established third-party administrator does not exist at this time and it is recommended that the program be administered directly by the municipality.

A City administered program allows for a customized program that can be designed for local community needs and can allow for lower administration fees or interest rates for participants. This would increase the attractiveness of the program, participant uptake and the potential to reduce greenhouse gases.

Through interviews with other municipalities, it was also suggested program delivery is less complicated and application turnover can be improved through a municipally delivered program.

Additionally, a municipally delivered program may allow for a smoother implementation in Saskatoon, given our experience running similar programming such as the Lead Pipe Replacement Program and the Low-Income Senior Tax Deferral Program.

2. Program Name

Recommendation: Home Energy Loan Program (HELP).

During the public engagement process many program names were considered including:

- Property Assessed Clean Energy Financing (PACE);
- Building Energy Improvement Loan Program (BEILP);
- Energy Efficiency Loan Program (EELP);
- Energy Reduction Upgrade Program (ERUP); and
- Sustainable Assets Financing for the Environment (SAFE).

The name Home Energy Loan Program was selected as it was the most preferred name by both residents and industry stakeholders and it clearly describes the program. This name has also been used successfully in the City of Toronto.

3. Participant Eligibility

Recommendation: Single-family residential property owners eligible for the program, determined through application process and eligibility criteria.

An application process will be developed (see Attachment 1 – Process Overview) to ensure applicants are eligible for a HELP loan, which will be reviewed by City staff. The City reserves the right to review multiple years of payment history. Eligibility criteria for the program will include:

- The applicant must be listed as the owner on the title of the property;
- All property owners must consent to participating in the program;
- The property must be located within the City of Saskatoon boundary;
- Only single-family dwellings including detached, semi-detached, and row housing will be eligible;
- Property taxes must be paid in full or expected to be paid in full through enrollment in the Tax Installment Payment Plan Service (TIPPS) at the time of application;
- The property and property owner requesting the retrofit is in good standing on their property taxes, utility bills and any other municipal charges, and has a satisfactory payment history; and
- Retrofit projects must be completed within 24 months of being approved for financing.

Rationale:
The Administration considered whether a residential or commercial program should be offered in Saskatoon. While, commercial programming will likely be offered at some point, administration recommends that this first iteration of the program should be available for single-family residential properties.

Advantages:

- Residential programs are less complex, require less customization, and require smaller start-up funding and loan capital. For example, in Toronto, the average project cost for a commercial PACE project is $735,000 compared to $22,000 for a residential project; the average completion timeline is 15-17 months per commercial project compared to 4-6 month per residential project.[2]
- Precedence in Saskatoon to start with residential programs. The City provided residential curbside recycling first and is planning to offer curbside organics collection before the Industrial, Commercial, and Institutional recycling and organics requirement bylaw is enacted. The City also has precedents for residential tax

[2] Clean Air Partnership, Accelerating Home Energy Efficiency Retrofits through Local Improvement Charge Programs: A Toolkit for Municipalities. (2020).

deferral programs such as the Lead Pipe Replacement Program and the Senior's Property Tax Deferral Program.

- Precedence in other jurisdictions to start with residential for PACE financing. In Canada, Toronto is the only municipality with an established commercial PACE program. The City of Edmonton intends to launch a commercial PACE program but is starting with a residential program.[3]
- FCM's Community Efficiency Financing Funding is exclusively for residential PACE programs, meaning a commercial PACE program would not be eligible for this new federal grant.

Disadvantages:

- Residential PACE requires a higher number of individual applications compared to commercial PACE and takes longer to become financially self-sustaining or produce significant greenhouse gas emission reductions.
- Commercial PACE programs can include a wider variety of buildings including offices, multi-family residential, hotels, industrial, and retail.[4]
- Commercial PACE programs are more common in the US, as 21 states have active programs.[5]

4. Project Eligibility

Recommendation: Eligible Projects include Energy efficiency projects, renewable energy installations, water conservation projects, and other projects.

See the full list of allowable projects in Table 2.

Because the loan is tied to the property and not the participating individual, only items that are permanently affixed to the property will be eligible under this program. However, multiple items from the table below can be combined into one HELP Loan.

Table 2 – Types of projects eligible for HELP loans

Project Category	Eligible Projects
Energy Efficiency	• High-efficiency furnaces/boilers/central air conditioners* • Window & exterior door replacements* • Basement/attic/exterior wall insulation* • Air sealing (e.g. weather stripping or caulking)* • Gas Tank-less water heaters/Gas storage water heater/electric heat pump storage water heaters* • Drain-water heat recovery systems • HRV (heat recovery ventilation) system installation* • Smart Thermostats*

[3] Barbara Daly, Program Coordinator PACE Edmonton, City of Edmonton, Phone Interview, (2020, January 20).
[4] PACE Alberta. (2017 October 29). PACE for Commercial Building Owners. Retrieved from https://paceab.ca/commercial.pdf
[5] PACE Nation. (2017). Economic, Energy, and Environmental Impact Report. Retrieved from https://paceab.ca/resources/08._Commercial_PACE_Impact_Report_2017.pdf

	**Denotes products must be ENERGYSTAR rated for local climate region*
Renewable Energy	• Air-source heat pumps* • Geothermal heat pumps* • Solar water heater* • Solar PV panels • Solar inverter* **Denotes products must be ENERGYSTAR rated for local climate region*
Water Conservation	• Low-flow toilet replacements • Low-flow fixture and faucet replacements • Irrigation control systems • Permanently affixed rainwater catchment sized to hold 50 gallons or more
Other	• Level 2 EV charging station system & installation costs • Battery storage system (paired with renewable generation) • Window glazing and embedded markers for birds

5. Use of Energy Efficiency Home Evaluations (EnerGuide Audits)

Recommendation: Pre & post EnerGuide audits are required. A grant or subsidy can be used to assist with audit cost, especially for income-qualified households. Audit cost can be included in the HELP Loan.

Requiring the use of energy efficiency home evaluations ensures homes are making the appropriate upgrades to reduce emissions and increase energy efficiency. Evaluations can also be used as an education tool for participants and the post project audit will aid in data collection for program monitoring. Also, requiring both pre- and post-energy audits ensures the program is eligible for FCM funding. Audits must be conducted by a certified energy advisor using the EnerGuide Rating System[6] both before and after the retrofit project is completed.

Further benefits of EnerGuide audits include:

- The pre-retrofit evaluation will provide recommendations on which upgrades would have the greatest impact on energy use, utility bills, greenhouse gases, and comfort.
- The results can help homeowners set priorities for renovations and educate participants on the energy efficiency process and different systems within their home.

[6] https://www.nrcan.gc.ca/energy-efficiency/energuide-canada/energuide-energy-efficiency-home-evaluations/20552

- Post retrofit evaluations will provide data to the City which will enable the program to compare estimated savings to actual savings once a project is complete and monitor program success for reduced greenhouse gases.

Implementing all the recommended options provided by energy advisors will not be mandatory as homeowners can choose what upgrades they would like to make, based on the eligible projects allowed within the program.

To increase consistency for cost and quality of EnerGuide home evaluations, the Administration will consider procuring energy efficiency home evaluation services directly. Benefits of this approach will:

- Enable the City to mandate exactly what is required of auditors for the program and provide training if required.
- Allow the City to pre-vet an auditing firm to ensure auditors are separate from contractors performing the retrofit upgrades and that they are unbiased when reviewing projects at completion.
- Streamline and potentially reduce costs for the auditing process for participants.

The cost of energy audits can be included within the participant's loan. Costs could be further reduced by:

- Bulk purchasing by the City, resulting in discounts; and
- Subsidizing the cost of energy audits for all program participants through rebates or grants provided directly from the City.

Details around procuring an auditor or subsidization are not yet confirmed and will be determined during program implementation.

Retroactive Energy Audits

If a participant has already completed an energy audit on their home prior to the home energy loan program implementation, the pre-installation energy audit can be bypassed. However, in order to bypass the initial audit, a participant must provide documentation that the previous energy audit was EnerGuide standard, done on the property they are applying for the loan for, and completed within two years of their application for the program.

6. Qualified Contractors List

Recommendation: Contractor list established by the City of Saskatoon but residents do not have to choose a contractor from the list and do-it-yourself projects are allowed.

A Choosing by Advantages decision making process was used to recommend whether a qualified contractor list should be mandatory, voluntary, or a hybrid. In all options, the Administration would develop a pre-vetted list of contractors (see Contractor List Requirements below) but vary on whether participants must use this list. It is anticipated that the cost of the program would remain the same regardless of the option chosen for the contractor list.

The options are described in detail in Table 3, along with their advantages and disadvantages as determined through the Choosing by Advantages process.

Table 3 – Choosing by Advantages results for Use of a Contractor List – Voluntary, Mandatory, or Hybrid

Option 1: Mandatory List	Option 2: Voluntary List	Option 3: Hybrid List
Details		
Participants must choose from pre-vetted contractor list. No “do-it-yourself” projects.	Participants could choose whether to use a contractor from the pre-vetted list, a contractor not on the list, or to do any listed eligible project themselves.	Only certain types of projects, based on value or complexity, would require the use of a contractor from the pre-vetted list. Retrofits that are either lower value, or deemed less complicated, could be “do-it-yourself” projects, or have a non-vetted contractor do the work.
Advantages		
• Strong support by Retrofit Roundtable (group of industry stakeholders) • Slightly less complex for participants and City as all projects must be done by pre-vetted contractor • Precedence for mandatory list with 3 municipalities	• Highest survey support by industry and residents (62% & 61% of survey respondents preferred) • Highest flexibility for participants which may provide more control over costs and higher program uptake • Precedence for voluntary list with 2 municipalities • Allows for DIY projects	• Some flexibility for participants & more control over costs • May lead to higher program uptake compared to mandatory option • Allows for DIY or small-scale projects • Reduced risk to the participant as ensures they hire a reputable contractor for large and complex projects
Disadvantages		
• Could result in lack of competition and higher prices • May impact program uptake • Only 19% of resident survey respondents in favour of this option • Least flexibility for participants	• Highest risk to participants, as they are able to choose outside the list • Least preferred by retrofit roundtable stakeholders	• Most complex for City to determine what projects are mandatory and which are voluntary • No precedence in other programs • Some risk to participants as they, are able to choose outside the list for small projects

A voluntary contractor list is recommended as it provides participants with the highest level of flexibility, was the most preferred by residents and industry based on survey responses and is expected to result in a higher program uptake than the other options.

The voluntary list acknowledges some smaller projects can be do-it-yourself but does not mandate what is allowable for do-it-yourself work.

7. Contractor List Requirements

Recommendation: To be on the contractor list, contractors must have a Workplace Compensation Board number, general liability insurance of at least $2M, be a registered corporation in Saskatchewan, and have completed training on the loan program.

As stated in Section A, as part of the program, the City will publish a pre-vetted contractor list. During engagement, industry and resident stakeholders expressed that the availability of a contractor list was important but that it list must be flexible and not overly restrictive to businesses.

Basic requirements in order to be included in the qualified contractor list will include:

- Proof of registered corporation in Saskatchewan (business license);
- Proof of Workers Compensation Board compliance;
- General liability insurance of at least $2M; and
- Training course provided by the City about the Home Energy Loan Program details.

Many other organizations in Saskatchewan already have contractor lists or networks with similar requirements. If contractors are already a member of a recognized contractor list than they only need to provide proof of membership to that group and complete HELP training to be included on the contractor list. Recognized contractor lists include the SaskPower Energy Efficiency Partners Program, the SaskEnergy Member Network, Saskatoon Land Branch Certified Builder, or be Saskatoon and Region Home Builders Renovator Renomark Certified.

8. Contractor Payment

Recommendation: City pays contractors directly.

The City plans to pay contractors directly for HELP projects. Both industry and residents were strongly in favour of this approach.

In order to be paid, participants will be required to provide proof of project completion (i.e. invoices directly from contractor or receipts for any DIY work completed) and a final EnerGuide report. Some projects, based on cost or timeline, may be paid in installments. This may reduce barriers such as cash flow for smaller contractors.

Program participants that complete DIY projects will only be compensated for the direct materials used in their project, or other non-labour costs such as the Energuide Audit and permitting, not for their labour hours.

9. Loan Repayment Terms & Fixed or Variable Loan Amount

Recommendation: Flexible repayment term of 5, 10, or 20 years; fixed maximum loan amount (not tied to property value).

A choosing by advantages decision making process was used to recommend the repayment terms and how the maximum loan amount would be determined for the program. The options for this recommendation are described in Table 4.

Table 4 – Loan Repayment Terms

Option 1: Fixed Term, Fixed max loan amount	Option 2: Fixed Term, Max Loan tied to property value	Option 3: Flexible Term, Fixed max loan amount	Option 4: Flexible Term, Max loan tied to property value
Details			
Fixed 20-year repayment term; loan maximum is the same for all households	Fixed 20-year repayment term; maximum loan is 10% of property value	Flexible repayment term of 5, 10, or 20 years; loan maximum is the same for all households	Flexible repayment term of 5, 10, or 20 years; Maximum loan is 10% of property value
Advantages			
• Less complex application process than options 2 and 4, quicker turn-around time. • Simplest contract and easiest for participants to understand. • Precedence in other programs. • Least risk to participants as participants must choose longer term with lower payments.	• Least risk to participants as participants must choose longer term with lower payments. • Precedence in other programs (for eg. Halifax bases loan repayment timeline on the life of asset).	• Most preferred by residents (tied with option 4) because of flexibility of term. • Similar to a bank loan. • Most like the City's existing lead line replacement program. • Less complex application process than options 2 and 4, quicker turn-around time. • Projected to have higher program uptake that 1 or 2. • 1 other program in Canada allows for flexible repayment.	• Most preferred by residents (tied with option 3) because of flexibility of term. • Similar to a bank loan. • Most like the City's existing lead line replacement program. • Projected to have higher program uptake that 1 or 2.
Disadvantages			
• Least preferred by public (tied with option 2).	• Least preferred by public (tied with option 2).	• More complex to administer than option 1 as	• Most complex to administer, challenging to

• Highest risk to City as repayment is spread over a longer term (tied with option 3). • Lower projected uptake than options 3 & 4 as participants have less control.	• Highest risk to City as repayment is spread over a longer term (tied with option 3). • More complex to administer than options 1 or 2, challenging to determine property value. • Lowest projected uptake as participants have less control and uncertainty on max loan amount.	contracts would vary (still less complex than 2 or 4).	determine property value and has a flexible term. • No precedents.

Flexible repayment terms were preferred by residents and are more similar to bank loan terms. It is expected that having a flexible repayment term will improve uptake compared to a fixed term of 20 years.

Having a fixed loan amount (for example $40,000) regardless of property value provides a simpler application process for the City. Determining market value of participants' homes was expected to be challenging (if not impossible) and would cause program delays and slower application turn-around times.

10. Minimum and Maximum Loan Amounts

Recommendation: Minimum $1,000, maximum $40,000 with the ability to increase maximum loan up to $60,000 if participant can demonstrate a 50% decrease in energy consumption relative to pre-retrofit performance.

Minimum loan amounts are recommended to be set at $1,000. Allowing for a low minimum spend removes barriers to low-income households that may want to start with small renovations. The cost per household to administer the program is expected to be much higher than $1,000 for the first year of operations but this is expected to decrease over time as more participants access the program. Additionally, it is not expected that the program will be used heavily for small upgrades. Based on the engagement results, only 5% of survey respondents said they would like to use the program for a loan less than $3,000 whereas 63% said they would like to use the program for a loan of $10,000-$20,000 or more.

Best practise research indicated that a maximum loan amount of $40,000 would suffice. However, during phase 2 of engagement, some individuals commented that $40,000 isn't high enough to complete a whole home retrofit or bundle many eligible projects together for maximum energy savings. Therefore, the Administration is recommending that a maximum loan up to $60,000 is allowed if participants are completing a home upgrade estimated to reduce household energy consumption by 50% relative to the pre-retrofit performance of their home; all other projects will be capped at $40,000.

11. Interest Rates & Administration Fees

Recommendation: Residents pay a fixed admin fee of $350 to $600 plus interest equal to the interest rate paid by the City.

The goal of this program is for it to be self-sustaining or to break-even. It is common practise to either charge a flat administration fee or include an interest rate levy (i.e. charge more interest than the City is charged for the loan it receives) that covers the costs of the program.

Four options were considered through a Choosing by Advantages decision-making process to look at whether operating costs for the program would be covered through administrative fees or interest rate levies. The options, their advantages, and disadvantages are presented in Table 5.

Table 5 – Choosing by Advantages Results for Administrative Fees

Option 1: $200 flat admin fee, match city interest rates	Option 2: $350-$600 flat admin fee, match city interest rates	Option 3: No flat fee, 0.5% interest rate levy on top of city interest rate	Option 4: No flat fee, 1% interest rate levy on top of city interest rate
Details			
Participants pay a fixed admin fee plus interest equal to the interest rate paid by the City or, if internal loans are used equal to the rate the City would receive if funds were invested. The admin fee is less than the cost to run the program.	Participants pay a fixed admin fee plus interest equal to the interest rate paid by the City or, if internal loans are used equal to the rate the City would receive if funds were invested. The admin fee may eventually cover the cost to run the program (once at full capacity).	Participants pay 0.5% more interest than what the City pays or, if internal loans are used 0.5% more than the rate the City would receive if funds were invested, which is used to cover administrative costs.	Participants pay 1% more interest than what the City pays or, if internal loans are used 1% more than the rate the City would receive if funds were invested, which is used to cover administrative costs.
Advantages			
• Most preferred by the public - lowest possible fee and interest rate. • Most competitive interest rate – likely lower than banks.	• Second most preferred by public – lowest interest rate and reasonable fees. • Most competitive interest rate – likely lower than banks.	• Interest rate likely still be competitive to bank rates.	• Minor incentive to borrow from city instead of bank (depending on your credit worthiness). • Could be financially sustainable, but not for 7+ years.

• Fixed admin fee is easiest to understand. • Expected to result in highest uptake.	• Fixed admin fee is easiest to understand. • Expected uptake higher than options 3 or 4. • Will eventually break even, once enough participants. • Precedence with other City programs, amount of fee is similar.		
Disadvantages			
• May never break even since costs are higher than fees collected. • Higher financial risk to the City, will be difficult to increase fees later.	• Slightly higher cost for participants but not seen as a major barrier to participate.	• Less preferred by residents than options 1 or 2. • Fees less transparent and more complicated to understand. • May disincentive larger projects. • May never break even, least financially sustainable option.	• Least preferred by residents. • Less competitive to bank rates. • Fees less transparent and more complicated to understand. • May disincentive larger projects.

This option is recommended because it balances financial sustainability for the City with competitive interest rate for participants. A small, flat administration fee is expected to result in a higher uptake of the program (resulting in higher greenhouse gas reductions) when compared to an interest rate levy and provide participants with a fair and transparent administrative fee.

Waiving the administration fee was considered for income-qualifying households as it supports a significant equity piece for the program at a relatively low cost. But, consistency with other City programs was determined to be a priority when making this recommendation for the fee structure.

Attachment 1 - Process Overview

The diagram below demonstrates the typical process a participant would follow with the Home Energy Loan Program.