

SCHEDULE F – PROJECT COMPLETION REPORT TEMPLATE

VERY IMPORTANT:

Timing: You need to email a report, to your GMF project officer (contact info is in Schedule C), on the dates indicated in Schedule C or whenever FCM asks for such a report.

Copyright: Before you submit a report to FCM, make sure you hold the copyright for the report. If you're hiring a consultant to prepare the report, please make sure to get the copyright (see FCM's copyright tips document), otherwise FCM will not be able to disburse the Grant Amount.

Accessibility for people with disabilities: Please do not change the format, font, layout, etc. of this report. This template has been specially designed, following FCM's Accessibility Guidelines, in order to be accessible to people with disabilities.

Confidentiality: If your report contains any Confidential Information that you would prefer not be made available to the public (e.g. through a case study or other materials produced by FCM that relate to your Project), please submit two versions of the report:

- 1. Complete report including Confidential Information:** Please clearly label this report with the word "**Confidential**" or similar wording and FCM will treat it as confidential.
- 2. Abridged report excluding Confidential Information:** This report may be posted on the FCM website and otherwise made available to interested third parties, to help FCM meet its knowledge sharing objectives.

Please contact your project officer to receive an electronic copy of the Completion Report Template.

Upon completion of the project, a copy of the Final Deliverable must be submitted along with this Completion Report.

FCM will post your report on the [Green Municipal Fund™ \(GMF\) website](#). This is because one of FCM's mandates is to help municipal governments share their knowledge and expertise regarding municipal environmental projects, plans and studies.

How to complete the Completion Report

The purpose of the Completion Report is to share the story of your community's experience in undertaking your project with others seeking to address similar issues in their own communities.

Please write the report in plain language that can be understood by people who are not specialists on the subject. A Completion Report is typically in the range of 5–10 pages, but may be longer or shorter, depending on the complexity of the project.

GMF grant recipients must enclose **final** copies of the Completion Report and the Final Deliverable with their final Request for Contribution. The reports, including all attachments and appendices, must be submitted in PDF format with searchable text functionality. Reports that are not clearly identifiable as final reports, such as those displaying headers, footers, titles or watermarks containing terms like "draft" or "for internal use only," will not be accepted by GMF. Additionally, reports must be dated. If you have questions about completing this report, please consult GMF staff.

GMF number	GMF 17579
Name of lead applicant (municipality or municipal partner)	Clean Air Partnership
Name, title, full address, phone, fax and e-mail address of lead technical contact for this study	Gabriella Kalapos, Executive Director, Clean Air Partnership, gkalapos@cleanairpartnership.org , 416-948-7125 (phone), 75 Elizabeth Street, Toronto, Ontario M5G1P4
Date of the report	July 15 th , 2022
Type of study (Feasibility study or Program Design study)	Feasibility Study

1. Introduction

- a) **Who was involved in doing the Study, and what are their affiliations? Please include name, title and contact information. Those involved could include municipal staff, engineers and other consultants, a representative from a non-governmental organization, and others.**

There were four municipalities engaged in this Feasibility Study project:

- Dufferin County: Sara MacRae, Manager of Climate and Energy, smacrae@dufferincounty.ca, 519.941.2816 x2624, 30 Centre Street, Orangeville, ON L9W 2X1
- City of London: Jamie Skimming, Manager, Energy and Climate Change, jskimmin@london.ca, 519.661.CITY x 5204, 251 Dundas Street, Second Floor, London, Ontario, N6A 4L9
- City of Barrie: Adam McMullin, Manager of Energy, Adam.McMullin@barrie.ca, 705-739-4220 ext. 5097, 157 Bradford Street, PO Box 400, Barrie ON L4M 4T5
- Town of Huntsville: Julia McKenzie, Director of Financial Services/Treasurer, julia.mckenzie@huntsville.ca, (705) 789-1751 ext 2251, 37 Main St. East, Huntsville, Ontario P1H 1A1

CAP also worked with Lightspark to undertake the market analysis and uptake scenarios

- Lightspark contact: James Riley, Founder and CEO, james.riley@lightsparkinc.com, (778) 806-1165

2. The Study

- a) **Please summarize the overall objectives of your study and the key activities or approaches you undertook to meet these objectives.**

The objective of this study was to undertake the market analysis and feasibility analysis for each of the participating cities. This project was combined with GMF 17577 which brought in an additional 3 municipalities into the project. The steps for this project included:

- Collecting the necessary data to undertake retrofit market analysis and uptake scenarios. Data collected included: natural gas and electricity data from utilities for residential sector, MPAC data, geospatial data for building shape, city boundary data (polygon), NRCan audit data, census data.
- Data sharing agreements needed to be secured to share the data with Lightspark to undertake the analysis.
- Upon collection of the data collection, Lightspark undertook the market analysis to identify the housing archetypes within the community, economic and GHG reduction potential, and measure potentials.
- The market analysis was then presented to each of the municipal leads to gather their input and questions to complete the market analysis. Based on the questions the staff lead had regarding the uptake scenarios Lightspark then undertook the uptake analysis to provide the municipal lead with options to consider regarding uptake and incentive design.
- Upon finalization of the market analysis and uptake scenarios from Lightspark for each of the participating municipalities, CAP then developed a design consultation slide deck to use within each of the municipalities to engage with the lead municipal staff person as well as others within the municipality that were identified as necessary to consult with (consultations often focused on the finance teams within the municipality).
- While this project was a FCM CEF Feasibility Study project, the objective was to bring each of the participating municipalities further along the program design pathway to enable them to meet all the FCM CEF program design requirements and proceed towards FCM CEF capital and grant proposals should the municipal council approve that direction.
- Based on the input from the internal municipal consultations CAP then developed a design report for each of the municipalities to summarize: the rationale for a community retrofit financing program, the top level finding of the market analysis and uptake scenarios, program design considerations and recommendation and a pathway map and municipal councils decisions needed to apply for a FCM CEF capital and grants proposal. The original intention was to develop a council report rather than a design study but based on feedback from the municipal leads and due to the different ways each of the participating municipalities have for their Council reports, it was decided that CAP would develop the Design report that would enable each of the municipal leads to develop the corresponding staff council report that fits the format used for their municipality.
- For Huntsville and Dufferin County the design report along with a staff report was submitted to municipal councils for their information and decision making. For Barrie it was determined that it would make more sense to wait for the next council (post November 2022) to seek decisions and mandate related to a community retrofit financing program. London is planning on going to council in July or August 2022 to seek council approval for a LIC based financing approach, municipal capital contributions, and a FCM capital and grants application.
- Huntsville has approved a LIC based financing option and to work with BetterHomes Ontario for a FCM CEF capital and grants application. Dufferin County has approved staff to work with BetterHomes Ontario to undertake local municipal consultations to seek their support for a LIC based financing program that would aim to be capitalized and funded via FCM CEF and Dufferin County contributions to loans.
- In addition to the market analysis and program design for each of the municipalities, CAP also developed the Archotyping Guide for Energy Efficiency Programs to provide municipalities with guidance on how housing archetypes can be used to classify buildings into representative clusters and describes the importance of archotyping to program design, the utility of different variables, available data sources, and methods for defining housing archetypes and their energy efficiency/GHG reduction opportunities. This Guide is not meant to provide a prescriptive methodology detailing every step required to undertake a market analysis, but rather to better enable staff to more effectively and efficiently collaborate with staff and/or consultants who are experienced in this area.

b) Please describe any public or internal consultations or workshops conducted as part of the Study and their impact on the Study.

- For each of the municipalities consultations were undertaken with the lead staff person and finance departments within each of the municipalities. Consultations for the market analysis and uptake scenarios were undertaken with the municipal lead; whereas design consultations (that also included the market analysis) were undertaken with finance staff. Municipal Councils were provided with a staff report and a program design report to provide recommendations and identify the decisions that council needs to make to determine next steps (keeping in mind that Barrie will only be going to council in the new municipal term (post November 2022)).
- The goal of these consultations was to share the results of the market analysis and housing archetypes to identify which housing archetypes presented the best opportunity to achievement of a “free” retrofit in that instead of spending money of energy costs, the property owner can transfer those costs to their LIC loan repayment. Upon the full repayment of the retrofit loan those energy savings would then be accrued by the property owner. This was explored with an economic and GHG lens for both the building envelope, and fuel switching perspective.
- Program design consultation also took place with the Retrofit Training Network to gather their input into the program design recommendations to inform leading practices on creating a customer focused retrofit program in a manner that also takes into consideration municipal program administration concerns (i.e. how these programs can reduce the admin burden on municipalities while still addressing program gaps and retrofit ecosystem advancements).
- This project did not include community/public consultations within each of the municipalities. However, input from other Ontario retrofit program community/public consultations and user type breakdowns did inform program design considerations and recommendations.

3. **Feasibility Study only: Elements of a Feasibility Study**

Please provide the page numbers from the Feasibility Study report for the following program design elements. If the design element is not in the report, please provide a description of the element.

Elements of a Feasibility Study	Page numbers from the Feasibility Study report or description of the feasibility element
A baseline assessment of a community’s housing stock and energy upgrade potential, including assessing building types, energy use profiles and opportunities for energy upgrades to support GHG emissions reductions.	Market Analysis for each municipality in GMF 17579_4cities: 4 cities Lightspark Market Analysis Reports folder. It is also summarized in Part 2 of each of the Program Design Reports.
Potential uptake of home energy upgrades in terms of the number of anticipated projects and level of investment required	Uptake Scenarios for each of the municipalities in GMF17579 available in 4 cities Lightspark Uptake Scenarios folder
Expected environmental, social and economic benefits that could be achieved from these projects	This is a big component of the uptake scenarios but summarized in part 1 of each of the Design Consultations slides and Program Design Reports
Homeowner barriers to energy efficiency and renewable energy upgrades and to participation in existing efficiency programs, such as those offered by a utility company or regional efficiency agency	Summarized for each of the municipalities in Part 1 of their Program Design Reports
Evaluation of relevant financing models for your local context	For each of the projects the LIC mechanism was identified as the recommended approach. Consultations were undertaken with a few utilities (Huntsville, Hydro One) to identify if on-bill financing may be a possibility but utility support was lacking.

Engagement with key municipal and external stakeholders on shared goals for a local program	Market analysis and program design consultations were undertaken with each of the municipalities to engage finance teams in program design/approach. See 4 Cities Design Consultation Slides folder
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4. Program Design Study only: Elements of a Program Design Study

Please provide the page numbers from the Program Design report for the following program design elements. If the design element is not in the report, please provide a description of the element.

Elements of a Program Design Study	Page numbers from the Program Design report or description of the design element
Target audience (e.g. housing stock, socio-economic groups, etc.)	The target audience was defined as those most likely to be able to achieve a “free” retrofit in that their energy reduction opportunity presents the greatest opportunity to replace energy costs with loan repayments. See Part 2 of the Design reports for more details.
Participant eligibility criteria	It was recommended that all residents who would like to participate in the program be eligible to participate in the program. Financial verification was recommended as tax account in good standing. See Part 3 of Design Report.
Eligible energy measures, and non-energy measures if relevant	Page 10 of Design report. It was also recommended that flood protection and contingency related to non energy improvements stemming from energy efficiency measures (ex: identified mold issues) be considered for inclusion.
Funding sources and budget	It is recommended that each of the municipalities that decide to advance a community program apply to FCM CEF capital and grants and that the matching contributions come from municipal capital reserves, Infrastructure Ontario or 3 rd party private capital borrowed by the municipality for the program.
Recommended financing model	LIC based financing is recommended for each of the municipalities.
Financing terms and conditions	Up to a 20 years term with no penalty for early pay back.
De-risking strategies (e.g. credit assessment, municipal loan loss reserve and partial loan guarantee for third-party lenders)	Part 3 of Program Design Report.
Program delivery model	Consideration of a 3 rd Party delivery model was a recommendation for each of the municipalities based on consultations within each of the municipalities on concerns related to admin burden of program delivery.
Application of the EnerGuide Rating System and relevant requirements for program participants	It was noted that a NRCan audit requirements was part of the FCM CEF program requirements.

Integration with other relevant incentive programs	A market analysis of programs in market was provided during municipal consultations as well as in Part 1 of the Program Design reports.
Consumer protection measures	Didn't really address this in program design thus far.
Marketing and communications strategies	Didn't really address this in program design thus far
Workforce training needs	Part 3 of Design report
Program implementation plan	Part 4 of Design report re municipal council decisions
Stakeholder roles and responsibilities	Part 3 of Program Design report
Client journey and application process	Later slide in Design Consultation Slides and in Part 1 of Design reports
Program process flow diagrams	Later slide in Design Consultation Slides
Program monitoring and evaluation	Didn't really address this in program design thus far.
Risk identification and management strategies	Part 4 of Design Reports
Contracting and procurement	Addressed in staff council reports seeking council support to advance a FCM CEF grants and capital application with BetterHomes Ontario or other 3 rd party who can work with the municipality to meet all FCM CEF program design requirements and develop a capital and grants application to FCM CEF. .

5. Lead Applicant's Next Steps

- a) **Taking the Study's recommendations into account, what next steps do you, as the municipality or municipal partner, plan to take? What barriers or challenges do you anticipate with these next steps, and how might these be overcome?**

Addressing municipal finance departments' concerns related to the admin burden resulting from using the LIC mechanism was raised as an issue and highlighted the need to address this issue over the longer term as many of the admin concerns stems not only from the initial few years of program uptake but rather from concerns re the admin burden when these programs reach scale up numbers. The next steps to address this issue is undertaking some consultations with finance teams to explore possible models for removing that admin burden form municipal finance teams. We have highlighted the PACE Atlantic loan administration structure with City of London to see if such a process is transferable to Ontario. There is also the possibility of working with the Province of Ontario to improve the LIC legislation to streamline 3rd party LIC management on behalf of municipalities.

Next steps for each of the participating municipalities is provided below:

Town of Huntsville: Town of Huntsville has submitted a Council report and Council has approved staff to advance a Huntsville Retrofit Financing program using LICs and to work with BetterHomes Ontario on an FCM capital and grants application.

City of London: London is hoping to get a report in front of Council prior to the election break but if that is unable to take place they will be submitting a staff report to Council for their decision-making in the new Council term (Post November 2022). They are seeking approval to use the LIC mechanism and capital contributions and are also recommending that London work with BetterHomes Ontario to advance a London retrofit financing program and an FCM capital and grants application.

City of Barrie: Barrie is continuing to advance conversations with the finance team and Executive Management Team (EMT). Barrie is planning on going to Council in the upcoming council term (post November 2023) for decision making on next steps (re: LIC use, capital contributions, etc.).

Dufferin County: Dufferin County went to Council in June of 2022 to provide an update to council on the project and to seek approval for Dufferin County to take the lead on advancing a regional retrofit program, a 20% contribution commitment from Dufferin County, and to engage with lower tier municipalities for their participation in a Dufferin County program and the use of LIC authorities.

<https://www.dufferincounty.ca/sites/default/files/clerks/2022%20Council%20Agendas/2022-07-14%20Council%20Agenda%20Package%202.pdf>

CAP will continue to work with Dufferin County on lower tier outreach and engagement to advance a regional Dufferin County retrofit program. The plan is to go to Dufferin County Council again in early 2023 with results from the lower tier engagement and decisions related to an FCM capital and grants application.

6. Lessons Learned

In answering the questions in this section, please consider all aspects of undertaking the Study—from the initial planning through each essential task until the Final Study report was prepared.

a) **What activities or partnerships were critical to the success of your Study?**

- Partnerships with municipalities and with a consultant that can undertake the market analysis was instrumental to advancing the to dos related to this project.
- Partnership with the Retrofit Training Network were instrumental in providing input into how the program design can support the advancement of the retrofit ecosystem.

b) **What barriers or challenges (if any) did you encounter in doing this Study? How did you overcome them?**

- Data collection took longer than expected. One of the efforts that was very helpful was delivering a webinar with all participating municipalities on the data and how they can access it. Helping them identify contact people within utilities they needed to contact, and virtual meetings with lead municipal staff and the municipal MPAC staff lead.
- Engaging with Finance teams was challenging due to their busy schedules and their concerns related to the admin burden of LIC administration. Working with them to identify their admin burden during the early stages of the program and how that can be reduced over the longer term (once program scale up is achieved) re legislation updates that would streamline the 3rd party delivery of the LIC mechanism. We are in the process of undertaking consultations with a few finance teams to see what other LIC administration options may be able to significantly reduce the admin burden of LIC administration (and more particularly loan provision admin burden).

c) **What would you recommend to other municipalities interested in doing a similar Study? What would you do differently if you were to do this again?**

- There are significant human and financial resource savings to undertaking this work in a cohort manner. This project resulted in each of the 4 municipalities completing their feasibility analysis and a good component of their program design for the costs that some municipalities were spending on doing their individual program design. What will need to be done differently is that in all likelihood municipalities in the cohort will be required to provide cash contributions to this

work to better enable this work to be undertaken. They only provided in-kind contributions in terms of their staff time for this project and in the future there is likely to be the need to have them contribute staff as well as financial resources to make this a financially viable project for CAP to undertake again. It is likely that future projects such as this will require municipalities to contribute a minimum of 20% of total program costs.

d) Do you have a project champion who has been instrumental to the success of the study? If so, please include his or her name, title and contact information, and describe his or her role in the study.

- Each of the municipal leads were champions for this project and the consultations and council decisions would not have been possible without their support and effort.

7. Knowledge Sharing

a) Is there a website where more information about the Study can be found? If so, please provide the relevant URL.

- <https://www.cleanairpartnership.org/projects/market-analysis-and-program-design-for-municipal-retrofit-programs/>

b) FCM is developing a Community Efficiency Financing resource library to share tools and best practices on designing and implementing local financing programs for home energy upgrades. In addition to the Study results, has your Study produced any resources or materials that would be useful to share with other communities, such as checklists, toolkits, templates, guidelines, bylaws, videos or information brochures? If so, please attach copies or include the relevant website links.

- Each of the participating municipalities' design reports can be shared publicly once they have gone to Councils (ready to be shared: Huntsville and Dufferin County. London's will be able to be shared by September 2022. Barrie's will have to wait until December 2022 or January 2023.
- Huntsville Council:
<https://huntsvilleon.civicweb.net/document/59332/BetterHomes%20Huntsville%20-%20No.1.pdf?handle=423E2122593140A98E738EC0689733D4>
- Dufferin County - Page 3 of:
<https://www.dufferincounty.ca/sites/default/files/clerks/2022%20IES/2022-06-23%20IES%20Minutes%203.pdf>
- The Archotyping Guide For Energy Efficiency Programs would be of value to share.

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