

## 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.

## Project Completion Report: Kelowna Home Energy Retrofit Financing Program – Feasibility Study

<b>GMF number</b>	17569
<b>Name of lead applicant (municipality or municipal partner)</b>	The Corporation of the City of Kelowna
<b>Name, title, full address, phone, fax and e-mail address of lead technical contact for this study</b>	Chris Ray, Champion of the Environment City of Kelowna 1435 Water Street, Kelowna, BC V1Y 1J4 <a href="mailto:cray@kelowna.ca">cray@kelowna.ca</a> ; 250-469-8825
<b>Date of the report</b>	March 31, 2022
<b>Type of study (Feasibility study or Program Design study)</b>	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.

Project Management and City involvement:

- All Milestones: Planning & Development Services Division
  - Project Lead: Chris Ray, Champion of the Environment
    - E: [cray@kelowna.ca](mailto:cray@kelowna.ca)
    - P: 250-469-8825
  - Project Support: Todd Brunner, Community Energy Specialist
    - E: [tbrunner@kelowna.ca](mailto:tbrunner@kelowna.ca)
    - P: 250-469-8447

Technical components of the study were completed by two consultants:

- Milestone 1 and 2: Lightspark Energy Inc.
  - Contact: James Riley, Founder & CEO
    - E: [James.riley@lightsparkinc.com](mailto:James.riley@lightsparkinc.com)
    - P: 778-806-1165
- Milestones 3 and 4: Community Energy Association
  - Contact: Alison Jenkins, Climate Solutions Specialist
    - E: [ajenkins@communityenergy.bc.ca](mailto:ajenkins@communityenergy.bc.ca)
    - P: 604-28-7076

### 2. The Study

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

In 2021, the City of Kelowna undertook a Home Energy Retrofit Financing Feasibility Study with the following objectives:

- Undertake a baseline assessment of Kelowna's single-family dwelling stock to understand the modelled energy and emissions profiles and energy upgrade potential.
- Understand the potential uptake for home energy upgrades and local benefits that could be achieved.
- Determine local barriers to home energy retrofit financing.
- Determine available financing models within the local context.

Lightspark Energy completed the first two objectives. They used geospatial building modelling, machine-learning and behavioural economics to map energy and greenhouse gas (GHG) emissions savings potential at the parcel level for low-rise residential building archetypes to help target candidates and priority areas for a potential home energy retrofit financing program. Based on the baseline assessment, work was done to understand the potential uptake for home energy upgrades in terms of number of anticipated projects and level of investment, and the potential local benefits that could be achieved (e.g. energy cost savings for residents, energy and GHG reductions, etc.).

For the last two objectives, Community Energy Association (CEA) assessed three potential financing mechanisms for the City of Kelowna: On-bill financing, Property Assessed Clean Energy (PACE) and Third-party financing. Each financing mechanism was evaluated on the basis of its ability to meet the needs of homeowners, level of effort for City staff, legislative considerations, and its ability to scale up to meet the climate targets adopted by the City. Research consisted of a literature review, stakeholder interviews and a series of workshops.

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

Between June and October 2021, 20 stakeholder interviews ranging from 30 – 60 minutes were completed. Stakeholders included representatives from municipalities, retrofit financing program administrators, consultants, utilities, credit unions, FCM, and the Municipal Finance Authority of BC. Three 1.5 hour workshops were conducted with City staff, contractors and homeowners in September 2021. Each workshop was tailored to its audience but consisted of a presentation summarizing the three financing mechanisms followed by facilitated discussion.

The findings from the Retrofit Financing Research Study were presented to neighbouring local governments in January 2022. Representatives from 12 local governments in the BC Interior attended.

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

- a) 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.

<b>Elements of a Feasibility Study</b>	<b>Page numbers from the Feasibility Study report or description of the feasibility element</b>
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.	See Lightspark's <i>Addendum to: Analysis and Mapping of Housing and Energy Data to Inform Policy Development</i>
Potential uptake of home energy upgrades in terms of the number of anticipated projects and level of investment required	See pages 5-8 of Lightspark's <i>Client Facing Program Design Report</i>
Expected environmental, social and economic benefits that could be achieved from these projects	See pages 5-8 of Lightspark's <i>Client Facing Program Design Report</i>
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	See pages 8-20 of CEA's Kelowna Residential Retrofit Financing Research Study.
Evaluation of relevant financing models for your local context	

Engagement with key municipal and external stakeholders on shared goals for a local program	See Appendix B of CEA's Kelowna Residential Retrofit Financing Research Study.
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#### 4. Program Design Study Only: Elements of a Program Design Study (NOT APPLICABLE)

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.

<b>Elements of a Program Design Study</b>	<b>Page numbers from the Program Design report or description of the design element</b>
Target audience (e.g. housing stock, socio-economic groups, etc.)	
Participant eligibility criteria	
Eligible energy measures, and non-energy measures if relevant	
Funding sources and budget	
Recommended financing model	
Financing terms and conditions	
De-risking strategies (e.g. credit assessment, municipal loan loss reserve and partial loan guarantee for third party lenders)	
Program delivery model	
Application of the EnerGuide Rating System and relevant requirements for program participants	
Integration with other relevant incentive programs	
Consumer protection measures	
Marketing and communications strategies	
Workforce training needs	
Program implementation plan	
Stakeholder roles and responsibilities	
Client journey and application process	
Program process flow diagrams	
Program monitoring and evaluation	
Risk identification and management strategies	
Contracting and procurement	

#### 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?

The key recommendation from the feasibility study related to financing is to design a program that incorporates (1) working with local financial institutions to provide retrofit financing; and (2) apply to FCM for credit enhancement.

One of the main challenges with such an approach is determining the geographic scope of a retrofit financing program. Whilst the City of Kelowna could proceed with this approach alone, it may be beneficial to collaborate with other Municipalities in the region. Benefits of a regional approach may include: stronger interest from local/regional financial institutions to participate in the program, stronger application to FCM for credit enhancement, greater interest and awareness of residents, and economies of scale in program marketing and delivery. It is likely that the City of Kelowna would have to take a leadership role in the development of a regional approach, and there is a risk that collaborating with other Municipalities could require an additional time commitment. However, the likely benefits of a regional approach outweigh the additional input required from the City of Kelowna. Considering this, the next step for the City of Kelowna is to engage with neighbouring local governments and local financial institutions to see if there is any desire to proceed with a regional home energy retrofit financing program.

## 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? Our study was largely completed by two consultants: Lightspark Energy and Community Energy Association. The City of Kelowna had existing working relationships with both (in particular CEA), which was very important for the study. This allowed the project to be discussed and properly scoped prior to FCM project approval, which helped keep the study on track time wise.

Regular communication with our FCM Project Officer during the application phase was extremely valuable. City staff appreciated the willingness of the Project Officer to answer questions and provide guidance, which ultimately resulted in properly scoped project.

CEA engaged with many stakeholders and subject matter experts in their retrofit options analysis. By conducting interviews and facilitating workshops/focus groups, we were able to get firsthand information about barriers to retrofit financing and challenges/successes of existing retrofit financing programs. While some of this information may be available through a literature review, the information would not have been as detailed/valuable to us. Therefore, direct local engagement was a key component of the study.

Lastly, right from the onset, City staff aligned this Feasibility study with our Community Climate Action Plan which included key low-carbon initiatives for the building sector including “develop a community energy retrofit strategy...” and “investigate financing models and other funding sources that would support city-wide deep energy retrofits.” It was critical to have alignment between the City’s Council endorsed Climate plan and this Feasibility study to demonstrate the need to pursue a retrofit financing program.

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

We did not encounter any major barriers to complete the feasibility study. The COVID-19 pandemic prevented many in-person engagement opportunities (including the in-person FCM peer learning activities that were budgeted for); however, the milestones were completed as expected, with remote/virtual engagement playing a more prominent role.

- 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?**

Many of the answers from questions 6a apply here as well:

- Look for consultants you have existing working relationships with who could meet the technical expertise for the study/project. This will help streamline the application and study.

- Take advantage of the willingness of the Project Officer to answer questions and provide guidance.
- Directly engage (e.g., interviews, workshops, focus groups, coffee chats, etc.) with stakeholders and subject matter experts to understand barriers to retrofit financing and challenges/successes of existing retrofit financing programs.
- Look for clear alignment with existing municipal plans to justify the investment of resources and demonstrate the intent to pursue a retrofit financing program.

**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.**

Todd Brunner, Community Energy Specialist, has been instrumental in ensuring this study proceeded as planned. The original application and project initiation was handled by the Project Lead, Chris Ray, when he was in the Community Energy Specialist role; however, Chris moved to another position with the City in April 2021. When Todd was hired in the Summer of 2021, he ensured the study progressed as was originally intended. Todd has connected with regional partners to disseminate the study findings and to discuss the possibility of a regional retrofit financing program. While staff turnover is always a project risk, Todd's ability to project manage and get up-to-speed quickly ensured this risk was mitigated.

## 7. Knowledge Sharing

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

Not at the moment. We may post the CEA study on our Energy webpage (<https://www.kelowna.ca/our-community/environment/energy>) at a later date.

**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.**

Our feasibility study did not produce any checklists, toolkits, templates, guidelines, bylaws, videos or information brochures. The *Kelowna Residential Retrofit Financing Research Study* report would be valuable to any community (particularly in BC) that wants to assess various retrofit financing options. We are happy to share this report to other municipalities as a resource and learning tool.

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Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.