Appendix A – Project Scope Summary

Scope of Work as Submitted to FCM's Commuinity Efficiency Financing program.

FCM Elements	FCM Feasibility Study Guide Description	Feasibility Study - Scope of Work
Baseline and Base Case Data Analysis	2019 Baseline assessment of community's housing stock and energy upgrade potential	1.0 Revisit and update the community housing data developed in the Council endorsed Community Energy Strategy (CES) for Oakville, including the refinement of the Base Case projecting residential energy and water use, costs, and greenhouse gas (GHG) emissions under a "Business as Usual" scenario to 2041 along with an outlook to 2050.
Energy Analysis, Identify Potential Measures and Benefits	Assessing building types, energy use profiles and opportunities for energy upgrades to support GHG emissions reductions, including: Assessment of the potential uptake for energy efficiency and renewable energy in terms of the number of anticipated projects and level of investment needed	2.0 Using 1.0 information, segment and map the data into building archetypes based on age, type and size of homes, along with end-use (heating, cooling, DHW, lighting, other) and associated utilities e.g. electricity, natural gas water, and other. 2.1.1 Integrate energy end-use and seasonal profiles for each archetype, as developed in Oakville's Community Energy Strategy. 2.1.2 Identify a menu of prescriptive energy conservation measures and assemble them into standardized retrofit packages that are common to each archetype. For greater certainty, the common standardized packages can be adjusted at the program delivery stage using the prescriptive measures to reflect the homeowner's individual retrofit opportunities/needs and investment appetite. 2.1.3 By measure and standardized package, identify the energy, and cost savings and GHG emissions reduction as well as the homeowners' benefits vs cost cashflow. NOTE: the common standardized packages as identified in 2.12, shall be evaluated both on their collective contribution to the CES's GHG, energy and cost reduction expectations/targets for the Residential Sector, and for the individual homeowner's utility cost reduction to exceed the cost of the retrofit. 2.1.4 Using 2.1.3, overlay publicly available economic demographic data to estimate and validate program uptake rate assumptions that will be used to inform future program targeting by demography/neighbourhood. 2.1.5 Identify existing and future (announced / pending) homeowner-focused programs that could potentially

FCM Elements	FCM Feasibility Study Guide Description	Feasibility Study - Scope of Work
		augment the future economics of the home retrofit program.
Market Barriers	Addressing: Barriers to energy efficiency and renewable energy upgrades (e.g. high upfront cost, split incentives, information gaps, inconvenience, variable quality…) Barriers to participation in existing efficiency programs, such as those offered by a utility company or regional efficiency agency	3.0 Identify barriers to the traditional uptake of residential energy efficiency (locally and provincially) and articulate in detail how the CES residential retrofit strategy addresses these barriers including, but not limited to; develop potential financing mechanisms, marketing strategies, acceptable pricing, quality control and logistics, and collaborations with key community stakeholders (i.e. contractors, investors, homeowners, community-groups, utilities among others).
Program Delivery Entity (Governance)	Develop the framework for the program delivery entity to inform more final program design and operational implementation plan	4.0 Entity Framework to include: • Marketing and sales approach, • Investment sources and uses, • Governance, • Operating costs and structure, • Financing cash flow – from loan entity – to homeowner and how it is repaid, • Contracting and materials partners, • Retrofit quality control, • Key performance indicators (KPIs), • Program performance tracking and reporting, • Ownership options, and 5.0 Contractual frameworks with service delivery partners/vendors.
Program Finance Models	Develop pro-forma cash flow, P & L and Balance Sheet following GAAP.	6.0 Utilizing analytical assumptions and parameters, develop a cash flow and profit and loss analysis, including balance sheet and loan portfolio. 6.1.1 Assess and quantify the business outcomes using GAAP.

FCM Elements	FCM Feasibility Study Guide Description	Feasibility Study - Scope of Work
	Assess finance models	7.0 Include an assessment of PACE/LIC as recommended by the CES, and/or Utility On-bill financing (OBF). NOTE: Financing assessment shall include regulatory restrictions, underwriting risks, and utility appetite. It will also differentiate between using PACE/LIC or OBF simply as payment channels as opposed to programmatic financing.
Risks and Mitigation	Engagement with key municipal and external stakeholders on shared goals for a local program initiative	8.0 Engage with key program stakeholders to identify and confirm program risks and potential risk mitigation approaches.
Cost vs Benefits Analysis	Projecting the local benefits that could be achieved from energy upgrades (e.g. energy cost savings for residents, energy and GHG reductions, water savings, etc.)	9.0 Analyze archetypal-level and aggregated, community-wide home-owner energy cost savings from standardized energy retrofit investments as well as ancillary benefits (i.e., comfort, accretive property value, etc.) to confirm the program's overall economic validity. 9.1.1 Determine the type and scale of skills, expertise and resources needed to implement the retrofit program at the scale needed in Oakville. 9.1.2 Evaluate and identify the broader local community benefits including for the potential retrofit supply chain partners, economic impact (direct, indirect, and induced employment), shareholders', investors', and other key stakeholders' added values. 9.1.3 Identify climate resiliency benefits of retrofit measures on households. 9.1.4 Identify any existing and upcoming climate resiliency programs to stack/integrate into the program.
Stakeholder Engagement	Structurally engage three key stakeholder groups: • Contractors • Investors • Homeowners	10.0 Conduct engagement activities – such as surveys, focus groups, seminars to verify program analysis parameters and potential barriers. 10.1.1 Retrofit content, quality, cost, delivery barriers and conditions. Packaging of outcomes of 2.1.3 and 4.0 for purpose of stakeholder engagement 10.1.2 Engage contractors around business model including training and capacity gaps in the contracting sector. (minimum 1 session) 10.1.3 Engage a representative sample of homeowners to confirm feasibility study assumptions, identify barriers

FCM Elements	FCM Feasibility Study Guide Description	Feasibility Study - Scope of Work
		and solicit feedback on the retrofit program framework to help inform future program design and operational adjustments. 10.1.4 Engage representative private sector investors around business model including training and capacity gaps in the contracting sector (minimum 1 session) 10.1.5 Scope the high-level key stakeholder engagement and awareness activities.
Feasibility Study Report	Develop a feasibility study complete with appropriate appendices.	11.0 Develop a feasibility study report in draft for presentation and initial comments and feedback. 11.1.1 Present the report and respond to town staff, OEC and Council member questions. 11.1.2 Based on feedback, provide the final feasibility study in both report and summary power point presentation for Town of Oakville and OEC approval. 11.1.3 Provide key data and analytics for future program design phase.

- *Sequenced to match R-OEER recommended project development milestones vs proposal original descriptions*

Scope Excerpts from Kick-Off Meeting (October 12, 2021)

R-OEER Framing Goals– Draft Concept
Contribution to CEP Targets

- Existing homes will meet energy and climate performance levels necessary to support Community Energy Plan Targets
- By 2041 existing homes in Oakville will be:
  - *XX% more source energy efficient (~ 35%)*
  - *YY% less carbon intensive (~60%)*
  - *ZZ% more water efficient (~ 25%)*
- Homeowners' utility saving greater than retrofit cost
- Investors receive attractive returns
- Contractors gain volume and margins
- Town Corporation exposed to no unacceptable financial risks

R-OEER Business Case
Overall Scope / Targets (Discuss)

- Properties
  - *All existing Oakville homes in current MPAC data (2020?)*
- Utilities
  - *Electricity; Natural Gas; Water*
- Timeframe
  - *Operational Start Year – 2022 (CEP assumed 2020)*
  - *First Retrofit Deliveries- 2023*
  - *Target Achievement – 2041 (CEP assumed 2041)*
  - *Financial Horizon – Target year plus 10 to complete financing*
- Returns
  - *Lenders – Ontario 20-year bond + 1% (~ 4 to 5%)*
  - *Equity Partners - TBD*
  - *Town Corporation – Neutral or Modest Dividend*
  - *Homeowner – Cash out < Energy Cost Saving*
- NR-OEER (Out-of-Scope)
  - *Toolset is structured for future Non-Residential (NR-OEER)*

Note: Suggested operational start precedes the first retrofit deliveries.

Garforth International Canada Inc.
61-240 London Road West
Guelph, ON, N1H 8N8
info@gaforthcanada.ca

R-OEER Business Case
Level of Detail

- General
  - *Business Case will be "Detailed Feasibility"*
- Level of Detail
  - *Targeted Home Categories and Penetration Rate*
  - *Recommended Packages and Pricing*
  - *Energy Cost Savings and Homeowner Payments*
  - *R-OEER Entity*
    - *Marketing & Sales Plan*
    - *Investments*
    - *Operating Costs and Structure*
    - *Contracting and Materials Partners*
    - *Ownership Options*
  - *Investors*
    - *Dividends on Equity*
    - *Lending Requirements and Interest*
  - *Engagement Plan for Key Stakeholders (Investors; Contractors; Homeowners)*
  - *GHG Reductions*
  - *Governance and Policy Recommendations*

R-OEER Business Case
Multiple Perspectives

- OEER Entity
  - *Profit & Loss*
  - *Balance Sheet*
  - *Cash Flow*
- Typical Homeowner
  - *Utility Savings – Cost and Usage*
  - *Net Cost Savings*
- Typical Contractor & Material Partner
  - *Enhanced Revenues and Associated Costs*
- Investors & Lenders
  - *Interest and Dividends*
- Town / Community
  - *Utility Savings – Cost and Usage*
  - *GHG Savings*
  - *Local Employment*
  - *Impact on Overall CEP*

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Garforth International
Energy Productivity Solutions