

Appendix E - Summary of Feasibility Study Assumptions

Program/Business Design Parameter	Assumption	Additional commentary
Governance		
Program administrator	Municipal Services Corporation (MSC)	Owned by founding partners which could include the Town Corporation as a shareholder.
Corporate structure	For-profit	Operating with social goals and supporting LIC requirements.
Program Scope		
Properties	All homes existing in 2019	Initial target market detached, semi-detached, and town homes older than 20 years with multi-unit homes added in year 3.
Projects	Standardized energy efficiency retrofit designed to achieve at least 30% efficiency	Feasibility Study Framing Goals aligned with CES goals.
Measures	Energy and water efficiency only	Windows, weatherization, insulation, HVAC upgrades, lighting, water-saving devices and comfort controls
Business Model		
Retrofit package	Standardized based on category of home	Thirty home categories based on type of home (detached, semi-detached and townhouse, and multi-unit low-rise and mid-rise) and age of home (post 2012, 1998-2011, 1975-1997 and pre-1975).
Retrofit pricing	Fixed index per specific area (\$ per m2) for each home category	Based on energy modelling for 30 home category building archetypes. Package pricing approach minimizes transaction cost and complexity.
Market penetration	Maximum uptake in SD, SSD & TH categories is 80%. Lower uptake for MU categories.	Aligned with CES Goal to retrofit 80% of Newmarket homes existing in 2019 by 2041.
Market penetration rate	4% of SD, SSD & TH retrofitted annually. Lower rates of MU categories.	SD, SSD & TH are targeted when ~20 years or older. MU categories each age group will be targeted 2 years later.

¹ Age ranges are determined by the Ontario Building Code.

Annual retrofits	2,300 to 2,900 home per year	4-year ramp up to mature capacity of between 2,300 and 2,900 per year
Retrofit cost	Approximately \$35,000	For a standard 175 m2 (1884 ft2) home. Minor variations by home type, age, and package HVAC content.
Term of LIC loans	20 years	Homeowner could use own funds or repay loan at any time without penalty
Year retrofits completed	2057	59,300 retrofits delivered, or 73% of targeted
Year financing completed	2067	
Retrofit cost structure	Current GTA market norm with 30% productivity gain	Reduced material, labour, general & administrative, marketing, sales and financing costs
Contractor margin	15%	Increase of 50% over market norm
Organization Structure and Costs		
Staffing	10 rising to 15 as retrofit volume increases	See Appendix E – Full Feasibility Study for a list of functions and salaries.
Annual operating costs	\$1.3M rising to ~ \$2.7M at mature run-rate	See Appendix E – Full Feasibility Study for operating cost assumptions.
Start-up working capital	\$1,780,000 maximum net working capital in year 3	See Appendix E – Full Feasibility Study for P&L assumptions.
Financing		
Customer conditions	Property assessed financing using LIC	LIC By-law facilitated by Town of Oakville.
Public incentives	None assumed	
Capitalization	Partners equity/loans	Share TBD in Business Planning
Operating Loans	Market-based lenders	\$2.5M tranches with 20-year term
Annual return	Ontario 20-year bond + 1%	
Other		
Inflation	1% per year	2% in higher price case
Interest rates	4.25% per year	5.0% in higher price case
Corporate tax rate	26.5%	No tax optimization has been applied
Utility & GHG prices	Higher & Lower to 2065	See Appendix E – Full Feasibility Study for price assumptions.

Stress Test Assumptions

Note: The Stress Test analysis was applied to a Low and Medium Case with variations in assumptions as described in the table below. The original assumptions, as shown above, are referred to as the Reference Case.

ITEM	REFERENCE CASE	MEDIUM CASE	LOW CASE
Incorporation of Entity	2022	2023	2023
Deliver first retrofits	2023	2024	2024
Retrofit Cost Productivity Discount	30%	25%	10%
Contractor/ Entity Fee Factor	62/8	63/12	86/4
Target Homes	All homes in 2019	All homes in 2019	SD/SSD in 2019 Only
Target start years by target home types	Study	Study adjusted for start year	Study adjusted for start year
Maximum penetration by applicable home types	80% for SD/SSD/TH 60% for MU-L, MU-M /20% MU-H	30% for SD/SSD/TH 10% for MU-L, MU-M, MU-H	5% for SD/SSD
Ramp-up for home type start-up profile	4-yrs to full run-rate 25% 50% 75% 100%	5-yrs to full run-rate 20% 40% 60% 80% 100%	5-yrs to full run-rate 10% 30% 50% 80% 100%
Entity Structure and Cost	Study	Study – volume adjusted	Study - volume adjusted
Retrofit packages (Content)	Study	Study	Study
Retrofit package (Cost before discount)	Study	Study	Study
Interest rate	4.25%	Study	Study
Utility Pricing (through 2051)	Study	Study	Study
Carbon Tax (through 2051)	Study	Study	Study
Cost Inflation	Study	Study	Study
Contractor relationship to Entity	Partner with contracted terms	Study	Partner meeting Entity standards
FEO Contribution	Study (FEO estimates)	Study indexed by volume	Zero