# AS-BUILT ROI ANALYSIS

## SOLARA FLATS
## 308 COLONY ST.
## WINNIPEG, MB

Prepared for:
UWCRC 2.0

May 04, 2026

Hanscomb
QUANTITY SURVEYORS

May 04, 2026 Ref # LWP1057

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Re: Zero Carbon As-built ROI Analysis vs NECB 2020 Baseline

Dear C. Kurdziel,

Please find attached our Project ROI Analysis for the 308 Colony Street Mixed-Use Residential Development, New Construction in Winnipeg, Manitoba.

This ROI Analysis is intended to provide a comprehensive evaluation of the financial performance of the as-built, zero-carbon multi-unit residential building relative to a National Energy Code for Buildings 2020 (NECB 2020) baseline. The analysis considers incremental capital costs, confirmed non-repayable funding associated with energy and low-carbon design, and projected lifecycle operating performance over a 25-year period. The objective is to support informed decision-making by assessing both the economic viability and sensitivity of the project under realistic and replicable conditions.

We have prepared this analysis in accordance with generally accepted principles and practices. Background references consulted for additional information are provided in the relevant sections throughout the report. For quality assurance, this analysis has been reviewed by the designated Team Lead as signed below.

Requests for modifications of any apparent errors or omissions to this document must be made to Hanscomb within ten (10) days of receipt of this report. Otherwise, it will be understood that the contents have been concurred with and accepted.

We trust our analysis is complete and comprehensive and provides the necessary information to allow for informed decisions on this project moving forward, particularly with respect to the financial implications of low-carbon design strategies.

Please do not hesitate to contact us if you have any questions or require additional information.

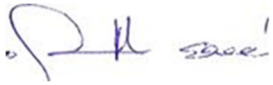
Yours truly,

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## EXECUTIVE SUMMARY

This report evaluates the financial viability of Solara Flats, a new zero-carbon multi-unit residential building relative to a National Energy Code for Buildings 2020 (NECB 2020) baseline. The analysis incorporates incremental capital cost, confirmed non-repayable funding, and 25-year operating performance.

The findings show that the zero carbon design construction is financially viable under current, replicable market conditions. Excluding one-time innovation funding, the project achieves a positive net present value (NPV) of approximately $1.6 million, demonstrating that incremental costs can be offset through a combination of targeted incentives and lifecycle energy savings.

A breakeven analysis indicates that approximately $2.4 million in funding is required to achieve financial neutrality. The project exceeds this threshold, providing a meaningful margin of safety. Sensitivity testing confirms that the project remains viable across a range of discount rates.

## 1.0 ABOUT SOLARA FLATS

Solara Flats, at 308 Colony Street, Winnipeg, MB is a new 21-storey, 214-unit mixed-use residential building. As of April 2026, this 165,000 square foot building is 99% completed. It's been recognized by the Canada Green Building Council, CaGBC as the first net-zero carbon emissions apartment constructed in Canada. Due to its zero-carbon design, Solara Flats incorporates innovative technologies such as central cold climate air-source heat pumps (ASHP), solar-thermal solar collectors and high temperature water to water heat pumps (WWHP), BIPV incorporated into the exterior envelope to achieve an energy use intensity (EUI) of 80 kWhr/$m^2$ based on model completed by Epp Siepman Engineering[1].

Hanscomb Limited has reviewed as-built construction costs of this zero-carbon design (ZCB) building to determine a financial performance based on 25-year Return on Investment analysis, compared to similar building, in same location constructed to a National Energy Code of Canada for Buildings (NECB) 2020 baseline.

## 2.0 DEFINING THE EQUIVALENT NECB 2020 BASELINE BUILDING

Hanscomb describes the characteristics of a "baseline" building as prescribed by the NECB 2020, based on information derived from the As-Built Energy Modeling Report[1]. It is our understanding that this reference building serves as the regulatory benchmark against which the as-Built Zero Carbon Building is measured. The baseline represents a building of the same size, shape, and functional use that meets the minimum legal energy performance requirements for Climate Zone 7A (Winnipeg, MB) without the additional enhancements required for NetZero emissions.

This baseline building differs from the as-built in three key areas:

**Enclosure Systems** (Thermal Performance): The baseline envelope will be designed to meet the prescriptive requirements of NECB 2020. Unlike the as-built configuration, the baseline utilizes standard assembly types to meet, but not exceed, thermal resistance minimums.

**Mechanical Services**: The mechanical baseline will present as a standard electrified system without the high-intensity heat recovery or solar integration present in the as-built construction.

**Electrical & Renewable Systems**: The electrical baseline will focus on code-compliant lighting and power distribution without on-site renewable electricity generation.

Based on the above, Hanscomb performed a 'delete and replace' for materials, elements and equipment that essentially meets the NECB 2020 performance rather than the as-built carbon state. Table 1 are the specific substitutions, additions, or removals of elements and materials that could revert the Solara Flat's as-built zero carbon design to an NECB 2020 Baseline.

*Table 1: Materials needed to revert as-built building to an NECB 2020 baseline*

| Element | Component | As-Built Zero Carbon Building (Take-off Item) | NECB 2020 Baseline (Substitution/Removal) |
|---|---|---|---|
| **A3: Enclosure** | Wall Cladding | 1200m$^2$ of BIPV Glass Modules & specialized mounting. | Substitute: Standard Metal Panels or ACM Cladding. |
| | Thermal Insulation | Thick continuous insulation (e.g., 6" Mineral Wool) + thermally broken clips. | Reduce: Thinner insulation layer (e.g., 4" Mineral Wool) + standard Z-girts. |
| | Glazing Type | Likely High-Perf Triple Pane with 2-3 Low-E coatings. | Substitute: Standard Double Pane Argon Low-E units. |
| | Roofing | High-albedo membrane + R-40 (approx. 8-10" polyiso). | Reduce: R-35 (approx. 6-7" polyiso). |
| | Slab/Soffit | 50mm XPS (R-9.5) edge insulation only. | Add: Increased thickness/coverage of underslab/soffit insulation. |

| Element | Component | As-Built Zero Carbon Building (Take-off Item) | NECB 2020 Baseline (Substitution/Removal) |
|---|---|---|---|
| **C1: Mechanical** | Central Plant | Modular Cold-Climate ASHPs + Heat Recovery HP (ASHP-2). | Substitute: Standard Efficiency Industrial ASHP + Electric Resistance Backup. |
| | Ventilation | High-Capacity ERVs with 87% sensible efficiency cores. | Substitute: Standard HRVs with 50% efficiency cores (Smaller physical footprint). |
| | DHW System | 2x Water-to-Water Heat Pumps (WWHP) + specialized heat exchangers. | Substitute: High-capacity Electric Resistance Immersion Boilers. |
| | Renewable Thermal | 60 Solar Thermal Collectors + Solar Pump Station + Glycol loop. | Remove: Entire solar thermal assembly, piping, and collectors. |
| | Storage Tanks | Multiple large hydronic storage/buffer tanks for heat recovery. | Reduce: Smaller buffer tank capacity (only for compressor cycling). |

| Element | Component | As-Built Zero Carbon Building (Take-off Item) | NECB 2020 Baseline (Substitution/Removal) |
|---|---|---|---|
| **C2: Electrical** | Power Generation | BIPV Inverters, DC wiring, combiner boxes, and rapid shutdown. | Remove: All solar-related electrical infrastructure. |
| | Building Controls | Advanced BAS for complex heat recovery and solar integration. | Simplify: Standard BAS for basic ASHP/Electric boiler sequencing. |
| | Metering | Detailed sub-metering for ZCB Performance reporting. | Remove: Multi-point sub-metering; standard utility-grade metering only. |

As per Table 1, the following differences emerge:

**Enclosure Transition:** The most visible change is the wall assembly. The ZCB wall requires specialized "thermal clips" to minimize heat loss through the structure, whereas the NECB baseline allows for cheaper, more conductive metal girts.

**Mechanical Complexity:** While the ZCB uses "waste heat" from the cooling loop to heat domestic water via a Water-to-Water Heat Pump, the baseline simply uses raw electricity to heat a coil. This significantly reduces the amount of piping, specialized pumps, and heat exchangers the mechanical contractor needs to price.

**Renewable Integration:** The BIPV is a "dual-purpose" item. In the ZCB, it is both the weather barrier and a power generator. In the baseline, it is replaced by a simpler, non-electrical cladding material.

## 3.0 CONSTRUCTION COSTS VERSUS THE NECB 2020 BASELINE BUILDING

From a quantity and costing perspective, the NECB 2020 baseline is materially simpler. The removal of the BIPV, Solar Thermal, and WWHPs represents the bulk of the cost savings. While the baseline building could require more insulation in the slab/parkade soffit area to meet the prescriptive code minimums, additional costs would be incurred for enhanced air-vapor barrier detailing and thermal bridge mitigation to meet strict air-leakage targets.

The shadow cost baseline presented here assumes the removal of high-performance premiums (BIPV, Solar Thermal, Heat Recovery) and the addition of necessary code-minimum items that were omitted or "traded off" in the zero-carbon design (specifically increased slab insulation). The estimate, shown in Table 2 is prepared as an adjustment of the pre-construction estimates and actual costs.

*Table 2: Shadow Cost Estimate: NECB 2020 Baseline*

| **Elemental Category** | **Baseline Amount** (CAD) | **As-built Amount** (CAD) |
|---|---|---|
| **A: SHELL (Substructure, Structure, Enclosure)** | $ 20,734,100.00 | $ 21,827,807.99 |
| **B: INTERIOR (Partitions, Finishes, Fittings)** | $ 12,803,500.00 | $ 11,134,790.82 |
| **C: SERVICES (Mechanical & Electrical)** | $ 18,265,400.00 | $ 21,155,731.26 |
| 1. Mechanical | $ 10,636,700.00 | $ 12,033,602.82 |
| 2. Electrical | $ 7,628,700.00 | $ 9,122,128.44 |
| **D: SITE AND ANCILLARY WORKS** | $ 1,065,400.00 | $ 320,559.83 |
| **Z: GENERAL REQUIREMENTS AND ALLOWANCES** | $ 8,090,363.00 | $ 10,015,351.48 |
| **Total Hard Costs** | $ 60,958,763.00 | $ 64,454,241.38 |

### 3.1 Comparison with As-Built cost of Solara Flats

The variance between the as-built total and the NECB baseline is most visible in the A: Shell and C1: Mechanical groups, where the majority of the "Green Premium" investments—such as the high-

performance envelope and the electrified thermal plant—were applied to meet CaGBC standards. The Shadow costs compared with the as-built costs provides the following high-level delta:

**As-Built ZCB** (Actual Hard Cost): $64,454,241 ($390/sq. ft.)

**NECB 2020 Baseline** (Shadow Estimate): $60,958,763 ($369/sq. ft.)

**The "Green Premium":** $3,495,478 (approx. 5.7%).

The Green Premium is the extra capital required to reach the Zero Carbon standard.

Hanscomb noted that the transition from the NECB 2020 Shadow Baseline ($60.96M) to the Verified As-Built Zero Carbon Building ($64.45M) resulted in a realized Green Premium of $3.5M (a 5.73% increase), primarily driven by a strategic pivot toward highly efficient mechanical services, renewable energy integrations and high-performance enclosure standards. While the project achieved significant capital savings through the value engineering of Interiors (B) and Site Works (D), these funds were aggressively reallocated into Services (C), which saw a nearly $2.9M surge to accommodate a $1.74M BIPV façade and a $1.4M premium for a cold-climate heat pump plant and solar thermal loops. This variance is justified by the building's move from a code-minimum consumer of energy to a high-performance producer, with the increased General Requirements (Z) reflecting the rigorous commissioning and air-leakage testing essential for CAGBC Zero Carbon certification.

## 4.0 RETURN ON INVESTMENT ANALYSIS

### 4.1. ROI Drivers

Analysis of the Return on Investments (ROI) of Solara Flats against the NECB 2020 Baseline requires comparison of the financial performance of the green premium based on these drivers:

1. Qualifying financial incentives and rebates,
2. Energy and utility cost savings, and
3. Operations and maintenance.

#### 4.1.1 Qualifying financial incentives and rebates

Solara Flats, constructed with a high-performing zero carbon (HP-ZC) design resulted in an incremental capital cost of approximately **$3.50 million** relative to a NECB 2020 baseline ($64.45M vs. $60.96M) as per Table 2. However, the project secured or on-track to secure a total of **$4.03 million in non-repayable grants and tax credits** from municipal, provincial, and federal programs supporting affordability, energy efficiency, and low-carbon construction shown in Table 3A. Additionally, Solara Flats is the recipient of the CMHC Affordable Housing Innovation Fund (CMHC-AHIF) of $9.3M for its pioneering status as an innovative net zero affordable housing facility.

*Table 3A: Low carbon driven non-repayable and conditionally non-repayable grants and credits secured by Solara Flats*

| Equity Source | Amount |
|---|---|
| Province - Conservation and Climate Fund | $ 150,000 |
| Province - Green Energy Credit Equipment tax credit- 10% of Solar PV | $ 224,928 |

| | |
|---|---|
| Canada investment Tax Credit- 15% of Solar PV and Solar Thermal | $ 330,396 |
| Efficiency Manitoba New Building Grant | $ 610,088 |
| Efficiency Manitoba Innovation Fund | $ 250,000 |
| Efficiency Manitoba Solar Rebate | $ 99,848 |
| FCM GMF SAH Planning Grant | $ 25,000 |
| FCM GMF SAH Development Contribution | $ 175,000 |
| Manitoba Environment & Climate Change (Low Carbon) | $ 2,167,939 |
| Total | $ 4,033,199 |

As the CMHC-AHIF funding was awarded only to a pioneer, first-in-class project, and therefore non-replicable, we've treated it separately in the upcoming NPV analysis. The updated funding table is shown in Table 3B.

*Table 3B: Total low carbon driven grants and credits secured by Solara Flats*

| **Equity Source** | **Amount** |
|---|---|
| Funding total as per Table 3A | $ 4,033,199 |
| CMHC Affordable Housing Innovation Fund (CMHC-AHIF) | $ 9,302,802 |
| Total Funding | $ 13,336,001 |

Hanscomb therefore evaluated the capital positions due to funding unlocked by the incremental green premium in two scenarios:

Scenario A - *without* CMHC-AHIF: Without consideration of the pioneering CMHC-AHIF funding, Solara Flats funding results in a **net positive capital position of approximately $500 thousands**, fully offsetting the incremental cost of high-performance systems and yielding an immediate **15.38% return on the incremental investment**. As all funding is non-repayable and realized at or near project completion, the financial benefit is effectively captured at inception, with no reliance on future operational savings. Over a 25-year analysis period, and excluding energy and maintenance impacts, Solara Flats design therefore represents a **net capital-positive investment** relative to the baseline case.

Scenario B - *with* CMHC-AHIF: Considering the pioneering CMHC-AHIF funding, Solara Flats funding results in a **net positive capital position of approximately $9.8 million**, am amount three times the incremental cost of high-performance systems and yielding an immediate **281.52%% return on the incremental investment**. This is not representative of typical replicability as the AHIF funding is no longer available to future similar development. As all funding is non-repayable and realized at or near project completion, the financial benefit is effectively captured at inception, with no reliance on future operational savings. Over a 25-year analysis period, and excluding energy and maintenance impacts, Solara Flats design therefore represents a **net capital-positive investment** relative to the baseline case.

### 4.1.2 Utility Costs

In the Case Study of Solara Flats for the National Housing Strategy Affordable Housing Innovation Fund report[2], Epp Siepman Engineering noted the unique challenge of the Winnipeg regional climate which makes energy performance (measured by EUI, Energy Use Index) of Solara Flats lower when compared to the energy performance if it were situated in other Canadian cities such as Quebec City, Toronto or Vancouver. Hanscomb also notes that in Winnipeg's low-cost electricity environment, the energy savings

alone may not pay back the capital premium within the building's lifecycle. The engineers' energy usage model shown in Table  indicates a total annual consumption reduction of approximately **34%** from the NECB baseline before accounting for on-site generation and additional **10%** after factoring renewable energy generated.

*Table 4: Energy Saving for Solara Flats Compared to NECB Baseline*

| Usage Category | NECB 2020 Baseline (kWh) | As-Built ZCB (kWh) | Annual Savings (kWh) | % Savings |
|---|---|---|---|---|
| **HVAC Usage** | 1,209,347 | 945,245 | 264,102 | 34% |
| **Non-HVAC Usage** | 1,348,593 | 755,475 | 593,118 | |
| **Renewable Generation** | 0 | -259,190 | 259,190 | |
| **Net Grid Energy** | 2,557,940 | 1,441,530 | 1,116,410 | 44% |

Solara Flats is projected to reduce annual electricity costs from approximately $226,230 for a NECB 2020-compliant baseline to $143,892, yielding first-year energy cost savings of approximately $82,300.

*A note about carbon emissions pricing* – Although consumer carbon pricing no longer applies in Canada, emissions factor of Manitoba grid is very low at ~0.002 $tCO_2e$/MWh, and at $80/tonne of the last rate, the carbon emissions penalty would have yielded a Year 1 carbon value of approximately $178. Hence, Carbon is financially negligible here due to clean grid but could be significant in the future should carbon pricing return.

### 4.1.3 Operation and Maintenance Cost drivers

Incorporating BIPV, solar thermal, and high-efficiency heat pump systems to Solara Flats is expected to result in a modest incremental change in annual operations and maintenance (O&M) costs relative to a NECB 2020 baseline. Based on post-occupancy evidence from the U.S. General Services Administration[3], high-performance buildings do not exhibit a consistent O&M cost premium; rather, outcomes vary with design integration and operational quality. The GSA's *Green Building Performance* study of 22 buildings found that, on average, sustainably designed buildings achieved 19% lower overall operating costs, with most buildings realizing lower aggregate maintenance costs, although a subset exhibited up to 25% higher maintenance costs due to operational deficiencies. This variability supports industry guidance from ASHRAE and life-cycle costing frameworks such as Life Cycle Costing for Facilities[4], which discourage the use of fixed $/SF maintenance premiums in favor of system-level analysis.

For the purposes of this financial assessment, a conservative incremental O&M allowance of +$0.10 to +$0.20/SF/year has been adopted, consistent with the range of observed differences in empirical studies (i.e., within the variability band of measured building performance). Applied to Solara Flats (165,150 SF), this corresponds to an annual incremental O&M cost of approximately $16,500 to $33,000, with a midpoint assumption of **~$20,000/year (~$0.12/SF)** used for base-case modeling. This assumption reflects:

i. modest increases in maintenance associated with advanced HVAC controls, heat pump systems, and solar thermal servicing, partially offset by

ii. reduced mechanical complexity (e.g., elimination of combustion systems), lower equipment wears due to optimized controls, and
iii. minimal maintenance requirements for photovoltaic systems.

Consistent with GSA findings, the analysis recognizes that O&M outcomes are highly dependent on commissioning quality and operator capability; however, even under conservative assumptions, the projected incremental O&M cost remains small relative to the building's modeled annual energy cost savings (1,116,410 kWh), and does not materially impact the overall lifecycle economic benefit of the zero carbon design.

## 4.2 ROI Analysis

### 4.2.1 Discount Rate

Hanscomb adopts a nominal discount rate of 5.5% for the lifecycle financial analysis. This rate reflects a risk-adjusted cost of capital for a stabilized multifamily residential asset in the Canadian market, informed by long-term Government of Canada bond yields (~2.5%–4.0%) and typical real estate risk premiums. Furthermore, guidance from ASHRAE and the National Institute of Standards and Technology (NIST), indicate nominal discount rates in the range of approximately 4%–8% for building life-cycle cost analysis.

### 4.2.2 Net Present Value

Based on previous discussions (4.1.1), Hanscomb evaluated two financial scenarios to distinguish between replicable market conditions and the project-specific funding. The first scenario excludes funding from the Canada Mortgage and Housing Corporation Affordable Housing Innovation Fund (CMHC-AHIF), while the second includes it to reflect the project's actual funding due to high performance zero carbon design.

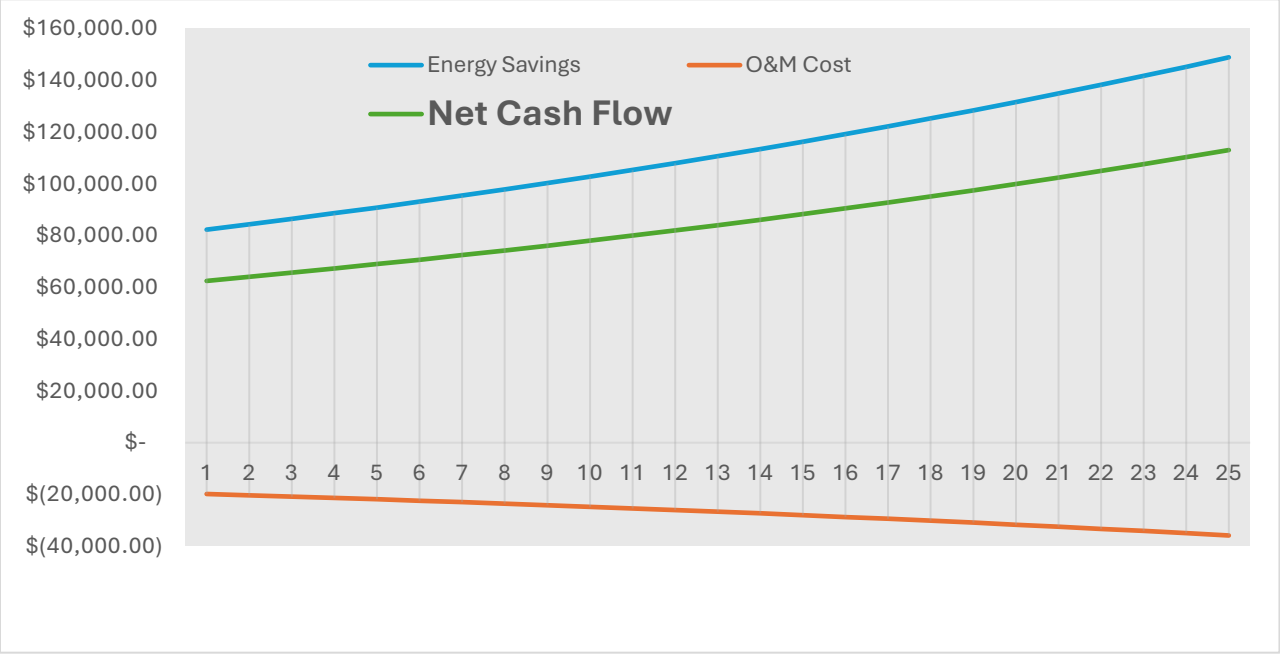



Figure 1: Solara Flats' Net Cash flow was positive throughout the study period driven by energy cost savings despite O&M cost penalties. This excludes the non-replicable green grant from the CMHC-AHIF. Excludes Year 0 – Capital Position.

Including CMHC-AHIF funding of approximately $9.3 million results in a total lifecycle NPV of approximately $10.9 million, driven primarily by the significant upfront capital contribution. However, as this funding is limited to first-in-class demonstration projects, it is not considered representative of broader market conditions.

Excluding the CMHC-AHIF, the project remains financially viable, with a positive net capital position of approximately $0.54 million at Year 0, and a total lifecycle NPV of approximately **$1.6 million** over 25 years Figure 1. This demonstrates that the high-performance design is economically feasible under current incentive structures, albeit with more moderate returns.

The annual values of the operational cash flow projections over the study period are shown in Appendix A.

## 5.0 CONCLUSIONS

Based on these analyses, the net present value over a 25-year analysis period, at a 5.5% discount rate was determined as $1.6 million driven by healthy rebates and energy cost savings. The net cash flow of the green premium remained positive over the 25-year study period driven by a consistently net positive energy savings despite modest net O&M costs of the specialized high performance mechanical and electrical systems.

The results presented herein should be interpreted as conservative. The analysis isolates only those funding streams directly attributable to energy performance and decarbonization, excluding a range of additional incentives related to affordability, innovation, and social impact that are co-enabled by the project's zero carbon design. Furthermore, select contributions treated as soft costs have not been included, notwithstanding their linkage to sustainability outcomes. Accordingly, the financial performance reported in this study likely understates the total realized value of the project. The study highlights that while innovation funding can substantially enhance project economics, the underlying financial viability of zero carbon development is supported by a combination of energy savings and targeted decarbonization incentives.

### 5.1 Minimum Funding Requirement for Breakeven

A breakeven analysis was conducted to determine the minimum level of non-repayable funding required for Solara Flats to achieve a neutral net present value (NPV). Based on an incremental capital cost of approximately $3.50 million and an operational NPV of approximately $1.08 million over 25 years, **the minimum required funding is estimated at $2.42 million**.

This indicates that approximately 31% of the incremental cost is recovered through lifecycle energy savings, with the remaining 69% requiring capital support to achieve financial neutrality. The project's replicable green funding of approximately $4.03 million exceeds this threshold by approximately $1.61 million, resulting in a positive lifecycle NPV.

Notably, most of the breakeven funding requirement is effectively met by the Manitoba low-carbon funding contribution alone, highlighting the critical role of targeted decarbonization incentives in enabling the financial viability of high-performance buildings.

### 5.2 Discount rate sensitivity analysis

A sensitivity analysis was conducted to evaluate the impact of discount rate assumptions on lifecycle financial performance. At a lower-bound discount rate of 3.5%, the operational NPV increases to

approximately **$1.43 million**, resulting in a total project NPV of approximately **$2.0 million**. At the base case of 5.5%, the total NPV is approximately **$1.6 million**, while at an elevated discount rate of 7.5%, the operational NPV decreases to approximately **$0.79 million**, yielding a total NPV of approximately **$1.3 million**.

The results indicate that while the project is sensitive to discount rate assumptions, it remains financially viable across the full range tested. Even under conservative assumptions, the project maintains a positive NPV, supported by both operational savings and non-repayable funding. This demonstrates resilience to variations in cost of capital and reinforces the robustness of the investment case.

## BACKGROUND SOURCES

1. Epp Siepman Engineering (2026). As Built Energy Modeling Report. 308 Colony Street Mixed-Use Development. 308 Colony St.
2. Epp Siepman Engineering (2026). Case Study Solara Flats Residential Development. 308 Colony Street Mixed-Use Develoment. 308 Colony St. National Housing Strategy Affordable Housing Innovation Fund
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6. Alphonse Dell'Isola. (1995). Life cycle costing for facilities: Economic analysis for building owners and professionals. Kingston, MA: RSMeans.
7. American Society of Heating, Refrigerating and Air-Conditioning Engineers. (2019). ASHRAE handbook—HVAC applications (Owning and operating costs chapter). Atlanta, GA: ASHRAE.
8. Bank of Canada. (2026). Government of Canada bond yields: Benchmark rates. Retrieved 2026, from https://www.bankofcanada.ca/rates/interest-rates/

## APPENDIX A: OPERATIONAL CASH FLOW PROJECTIONS

Below is a 25-year cash flow projection of savings and costs due to Solar Flats zero carbon design. Following the modelling of 1st year cost and projections, years 2 through 25, energy savings and O&M amounts were escalated using a constant annual growth rate of 2.5%, reflecting long-term electricity price escalation assumptions consistent with inflationary trends and utility rate forecasts.

| Year | Energy Savings | O&M Cost | Net Cash Flow | Discount Factor | Present Value |
|---|---|---|---|---|---|
| **1** | $ 82,338.00 | -$ 19,818.00 | $ 62,520.00 | 0.95 | $ 59,250.00 |
| **2** | $ 84,396.00 | -$ 20,314.00 | $ 64,082.00 | 0.90 | $ 57,538.00 |
| **3** | $ 86,506.00 | -$ 20,822.00 | $ 65,684.00 | 0.85 | $ 55,978.00 |
| **4** | $ 88,668.00 | -$ 21,343.00 | $ 67,325.00 | 0.81 | $ 54,363.00 |
| **5** | $ 90,885.00 | -$ 21,877.00 | $ 69,008.00 | 0.77 | $ 52,793.00 |
| **6** | $ 93,157.00 | -$ 22,424.00 | $ 70,733.00 | 0.73 | $ 51,289.00 |
| **7** | $ 95,486.00 | -$ 22,985.00 | $ 72,501.00 | 0.69 | $ 49,828.00 |
| **8** | $ 97,873.00 | -$ 23,559.00 | $ 74,314.00 | 0.65 | $ 48,410.00 |
| **9** | $ 100,320.00 | -$ 24,148.00 | $ 76,172.00 | 0.62 | $ 47,035.00 |
| **10** | $ 102,828.00 | -$ 24,752.00 | $ 78,076.00 | 0.59 | $ 45,704.00 |
| **11** | $ 105,399.00 | -$ 25,371.00 | $ 80,028.00 | 0.55 | $ 44,414.00 |
| **12** | $ 108,034.00 | -$ 26,005.00 | $ 82,029.00 | 0.53 | $ 43,167.00 |
| **13** | $ 110,735.00 | -$ 26,655.00 | $ 84,080.00 | 0.50 | $ 41,961.00 |
| **14** | $ 113,503.00 | -$ 27,321.00 | $ 86,182.00 | 0.47 | $ 40,797.00 |
| **15** | $ 116,341.00 | -$ 28,004.00 | $ 88,337.00 | 0.45 | $ 39,673.00 |
| **16** | $ 119,250.00 | -$ 28,704.00 | $ 90,546.00 | 0.42 | $ 38,589.00 |
| **17** | $ 122,231.00 | -$ 29,421.00 | $ 92,810.00 | 0.40 | $ 37,545.00 |
| **18** | $ 125,287.00 | -$ 30,157.00 | $ 95,130.00 | 0.38 | $ 36,541.00 |
| **19** | $ 128,419.00 | -$ 30,911.00 | $ 97,508.00 | 0.36 | $ 35,574.00 |
| **20** | $ 131,630.00 | -$ 31,684.00 | $ 99,946.00 | 0.34 | $ 34,646.00 |
| **21** | $ 134,921.00 | -$ 32,476.00 | $ 102,445.00 | 0.32 | $ 33,756.00 |
| **22** | $ 138,294.00 | -$ 33,288.00 | $ 105,006.00 | 0.31 | $ 32,903.00 |
| **23** | $ 141,752.00 | -$ 34,120.00 | $ 107,632.00 | 0.29 | $ 32,087.00 |
| **24** | $ 145,296.00 | -$ 34,973.00 | $ 110,323.00 | 0.28 | $ 31,308.00 |
| **25** | $ 148,929.00 | -$ 35,847.00 | $ 113,082.00 | 0.26 | $ 30,565.00 |
| | | | | | **$ 1,075,714.00** |

## **HANSCOMB:** Providing Cost Excellence in the Construction Industry Since 1957

As trusted independent cost advisors, our value extends beyond estimates:

Cost Planning & Control
- Master plan costing
- Construction cost estimates
- Change order evaluation

Project Loan Monitoring

Value Management

Financial Analysis
- Life cycle costing
- Operations and maintenance
- Cost/benefit analysis
- Feasibility studies

Applied Research
- Construction price indexing
- Risk and gap analysis
- Cost publications

Scheduling

Litigation Support




Our numbers at a glance:
- 85+ dynamic and inclusive team members
- 65+ years of expert costing
- 9 offices, and more coming
- 1 Manager of Canada's Arctic Region

From west to east, our leadership team is here to serve you. We collaborate on many projects nationally and internationally and are available to assist. For information, please contact us.

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