

1. COMMUNITY ENERGY INNOVATION FUND – SUMMARY REPORT

**FONDS POUR L'INNOVATION EN MATIÈRE DE TECHNOLOGIES
ÉNERGÉTIQUES COMMUNAUTAIRES – RAPPORT SOMMAIRE**

COMMITTEE RECOMMENDATIONS

That Council:

- 1. Receive the summary report for the Community Energy Innovation Fund;**
- 2. Approve the spending plan for the \$216,775 unspent funds from Community Energy Innovation Fund and transfer the associated budget from the Community Energy Innovation Fund account (909151) to Energy Evolution (908880); and**
- 3. Suspend the Rules of Procedure to consider this report at its meeting of March 23, 2022 due to time sensitivity.**

RECOMMANDATIONS DU COMITÉ

Que le Conseil :

- 1. Prenne connaissance du rapport sommaire sur le Fonds pour l'innovation en matière de technologies énergétiques communautaires;**
- 2. Approuve le plan de dépenses pour les 216 775 \$ de fonds non dépensés du Fonds d'innovation énergétique communautaire et transférer le budget du compte du Fonds d'innovation énergétique**

communautaire (909151) à Évolution énergétique (908880);

- 3. Suspende les règles de procédure pour examiner ce rapport à sa réunion du 23 mars 2022 en raison du manque de temps.**

DOCUMENTATION / DOCUMENTATION

1. Director's Report, Economic Development and Long Range Planning, Planning, Real Estate and Economic Development, dated 10 March 2022 (ACS2022-PIE-EDP-0007).

Rapport du directeur, Développement économique et planification à long terme, Direction générale de la planification, de l'immobilier et du développement économique, daté le 10 mars 2022 (ACS2022-PIE-EDP-0007).

2. Extract of draft Minutes, Standing Committee on Environmental Protection, Water and Waste Management, 22 March 2022.

Extrait de l'ébauche du procès-verbal, Comité permanent de la protection de l'environnement, de l'eau et de la gestion des déchets, le 22 mars 2022.

**STANDING COMMITTEE ON
ENVIRONMENTAL PROTECTION,
WATER AND WASTE
MANAGEMENT
REPORT 21
23 MARCH 2022**

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**COMITÉ PERMANENT DE LA
PROTECTION DE
L'ENVIRONNEMENT, DE L'EAU ET
DE LA GESTION DES DÉCHETS
RAPPORT 21
LE 23 MARS 2022**

Subject: Community Energy Innovation Fund – Summary Report

File Number: ACS2022-PIE-EDP-0007

**Report to Standing Committee on Environmental Protection, Water and Waste
Management on 22 March 2022**

and Council 23 March 2022

**Submitted on March 10, 2022 by Don Herweyer, Director, Economic Development
and Long Range Planning**

**Contact Person: Jennifer Brown, Project Manager, Planning, Real Estate and
Economic Development**

613-580-2424, 27914, Jennifer.brown1@ottawa.ca

Ward: City-wide

**Objet : Fonds pour l'innovation en matière de technologies énergétiques
communautaires – rapport sommaire**

Dossier : ACS2022-PIE-EDP-0007

**Rapport au Comité permanent de la protection de l'environnement, de l'eau et de
la gestion des déchets**

le 22 mars 2022

et au Conseil le 23 mars 2022

**Soumis le 10 mars 2022 par Don Herweyer, Directeur, Direction générale de la
planification, de l'immobilier et du développement économique**

**Personne ressource : Jennifer Brown, Project Manager, Planning, Real Estate and
Economic Development**

**STANDING COMMITTEE ON
ENVIRONMENTAL PROTECTION,
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REPORT 21
23 MARCH 2022**

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**COMITÉ PERMANENT DE LA
PROTECTION DE
L'ENVIRONNEMENT, DE L'EAU ET
DE LA GESTION DES DÉCHETS
RAPPORT 21
LE 23 MARS 2022**

613-580-2424, 27914, Jennifer.brown1@ottawa.ca

Quartier : À l'échelle de la ville

REPORT RECOMMENDATIONS

That the Standing Committee on Environmental Protection, Water and Waste Management recommend that Council:

- 1. Receive the summary report for the Community Energy Innovation Fund;**
- 2. Approve the spending plan for the \$216,775 unspent funds from Community Energy Innovation Fund and transfer the associated budget from the Community Energy Innovation Fund account (909151) to Energy Evolution (908880); and**
- 3. Suspend the *Rules of Procedure* to consider this report at its meeting of March 23, 2022 due to time sensitivity.**

RECOMMANDATION(S) DU RAPPORT

Que le Comité permanent de la protection de l'environnement, de l'eau et de la gestion des déchets recommande ce qui suit au Conseil :

- 1. Prendre connaissance du rapport sommaire sur le Fonds pour l'innovation en matière de technologies énergétiques communautaires;**
- 2. Approuver le plan de dépenses pour les 216 775 \$ de fonds non dépensés du Fonds d'innovation énergétique communautaire et transférer le budget du compte du Fonds d'innovation énergétique communautaire (909151) à Évolution énergétique (908880);**
- 3. Suspendre les règles de procédure pour examiner ce rapport à sa réunion du 23 mars 2022 en raison du manque de temps.**

EXECUTIVE SUMMARY

The Community Energy Innovation Fund (CEIF) was a one-time \$500,000 grant program that provided funding to local, community-based projects that supported Energy Evolution: Ottawa's Community Energy Transition Strategy. Eight projects were awarded funding. Five of the projects achieved the intent of the program and collectively increased energy literacy, encouraged behavioral changes, piloted emerging technologies, and enabled innovative approaches to energy conservation and efficiency or renewable energy generation. Three of the projects could not be completed and \$216,775 was returned to the City. A spending plan for the returned funds has been proposed that aligns with the original intent of CEIF and includes:

- Extending one existing temporary full-time position to work on the implementation of community facing Energy Evolution projects;
- Completing thermals scans on community buildings; and
- Developing an innovative commercial Local Improvement Charge Program to increase energy efficiency and conservation in commercial buildings, similar to those offered through Property Assessed Clean Energy (PACE) programs in the United States.

Since Council approved CEIF in 2017, Energy Evolution has advanced substantially, with staff starting to implement priority projects and launching the Better Homes Ottawa Loan Program. Other levels of government, utilities, and local organizations have also invested more in private action and community climate projects. Going forward, staff do not recommend continuing with a program comparable to CEIF and will work with other levels of government, utilities, and community partners such as those mentioned in the report to accelerate private action and community climate projects.

RÉSUMÉ

Le Fonds pour l'innovation en matière de technologies énergétiques communautaires était un programme de subvention ponctuelle de 500 000 \$ offrant un financement pour

des projets communautaires locaux qui appuyaient la stratégie Évolution énergétique : Stratégie de transition vers des technologies énergétiques communautaires d'Ottawa. Huit projets ont fait l'objet d'un financement. Cinq d'entre eux ont atteint l'objectif visé par le programme et ont collectivement permis d'accroître les connaissances sur les questions énergétiques, d'encourager les changements d'habitudes, de mettre à l'essai de nouvelles technologies, et d'appliquer des approches novatrices en matière d'économie et d'efficacité énergétiques ou de production d'énergie renouvelable. Les trois autres projets n'ont pas pu être menés à leur terme et une somme de 216 775 \$ a été remboursée à la Ville. Un plan de dépenses des fonds remboursés, fidèle à l'intention originale du Fonds, a été proposé et comprend les éléments suivants :

- Prolonger la durée d'un poste temporaire à temps plein afin de poursuivre la mise en œuvre de projets Évolution énergétique tournés vers la collectivité;
- Effectuer des analyses thermiques sur les bâtiments communautaires; et
- Élaborer un programme novateur de taxes d'améliorations locales et commerciales afin d'accroître les économies d'énergie et l'efficacité énergétique dans les bâtiments commerciaux, semblable à ceux proposés aux États-Unis dans les programmes Property Assessed Clean Energy (PACE).

Depuis que le Conseil a approuvé le Fonds pour l'innovation en matière de technologies énergétiques communautaires en 2017, le programme Évolution énergétique a considérablement progressé. Le personnel a commencé à mettre en œuvre des projets prioritaires et à lancer le Programme de prêts pour la mise en valeur des habitations. D'autres paliers de gouvernement, des services publics et des organisations locales ont par ailleurs investi davantage dans des projets climatiques privés et communautaires. À partir de maintenant, le personnel ne recommande pas de poursuivre avec un programme comparable au Fonds pour l'innovation en matière de technologies énergétiques communautaires, et entend collaborer avec d'autres paliers de gouvernement, des services publics et des partenaires communautaires, comme ceux mentionnés dans le rapport, afin d'accélérer la mise en place de projets climatiques privés et communautaires.

BACKGROUND

In 2017, Council directed staff to initiate Energy Evolution's Phase 1 short-term action plan which included establishing a grant program called the Community Energy Innovation Fund (CEIF) ([ACS2017-PIE-EDP-0048](#)). A one-time funding request of \$500,000 to fund CEIF was also approved by Council as part of the 2018 Environment and Climate Protection Committee tax supported budget ([ACS2017-CCS-ECP-0005](#)).

In 2018, Council received the Terms of Reference for CEIF ([ACS2018-PIE-EDP-0011](#)).

In 2019, Council received an update on the projects approved for funding under CEIF as part of the Climate Change Master Plan and the Energy Evolution Model report ([ACS2019-PIE-EDP-0053](#)).

DISCUSSION

Recommendation #1: Receive the summary report for the Community Energy Innovation Fund program

The intent of CEIF was to provide funding to local, community-based projects that support Energy Evolution: Ottawa's Community Energy Transition Strategy and built off the work completed through the one-time Energy Evolution Catalyst Project Program that ran in 2017. The vision for Energy Evolution is to transform Ottawa into a thriving city powered by clean, renewable energy by:

- Reducing energy use through conservation and efficiency;
- Increasing the supply of renewable energy through local and regional production; and
- Prioritizing the procurement of clean, renewable energy.

Types of projects considered for funding included those that increased energy literacy, encouraged behavioural changes, piloted emerging technologies, and/or enabled innovative approaches to energy conservation and efficiency or renewable energy

generation.

A total of eight applicants were successful in receiving CEIF funding (Table 1).

Table 1: Successful CEIF funding recipients

Funding Recipient	Project Title	Funding Allocated
Co-operative Housing Association of Eastern Ontario (CHASEO)	CHASEO Energy Upgrade Program	\$79,800
Glebe Community Association – Environment Committee	Glebe Community Centre (GCC) Energy and Carbon Reduction Project	\$58,856
Gloucester Housing Corporation (GHC)	Air Source Heat Pump and Thermal Storage Implementation for Achieving a Net-Zero Community	\$100,000
Hydro Ottawa	Citizen Energy Market Engagement Project	\$50,000
Ottawa Community Housing	Tenant Energy Engagement Project	\$75,000
The Recreation Association of the Public Service of Canada (RA Centre)	Helping Ottawa Be Physically Active While Reducing Greenhouse Gases	\$45,500
Relay Education	Ottawa Kids' World of Energy	\$25,800
Sustainable Eastern Ontario Network	Energy Cube	\$65,000

Successful funding recipients had two years starting in 2018 to finish their projects with

the program originally intended to end in August 2020. Due to the COVID-19 pandemic, the program was extended for those funding recipients whose projects were impacted and the program officially ended in June 2021. Additionally, due to outstanding circumstances, CHASEO, Hydro Ottawa, and Gloucester Housing Corporation were unable to complete their projects and most or all the project funding was returned to the City. Glebe Community Association – Environment Committee also returned a small amount of funding as they were not able to spend the full amount within the program's timelines.

Each funding recipient was required to complete a project evaluation report at the end of their project that outlined the project's achievements and benefits, whether the project could be scaled up in the future, and lessons learned.

Key outcomes from the completed projects include:

- Eleven windows with an R-value of 11 were installed at the Glebe Community Centre (up from an R-value of 3 or 4) to significantly reduce energy consumption, increase occupant comfort, and to serve as a demonstration project for the community (the high performance windows were the first of their kind in Ottawa).
- 565 in-unit programmable thermostats were installed in five Ottawa Community Housing (OCH) buildings, which was supported by a tenant engagement and outreach program on energy usage and conservation.
- A feasibility study was completed to explore options to replace the high temperature hot water district heat loop which currently heats a portion of the RA Centre. It is proposed that boilers fueled by renewable natural gas will replace the existing system.
- 185 Kids' World of Energy workshops were held over two years, 23 workshops more than originally anticipated, in which 4,492 students were engaged. An additional 54 Renewable Energy Design Challenges were completed with 1,416 students taking part.

- An interactive, mobile display called the Energy Cube was constructed to promote sustainability, energy efficiency, and renewable energy. Further details, including a documentary about what the project entails, can be found at <https://www.energycube.ca/>.

For more details on the project achievements, refer to Document 1.

Key takeaways from the program include:

- The five completed projects were successful in achieving their original intent. Funding recipients demonstrated a high level of commitment to their projects and, in some cases, flexibility to pivot during the pandemic.
- There are many organizations in the community who want to help support achieving the vision of Energy Evolution, but face challenges due to lack of dedicated staff or volunteers, experience, technical knowledge, and/or funding.

Overall, five of eight projects achieved the intent of the program and collectively increased energy literacy, encouraged behavioural changes, piloted emerging technologies, and enabled innovative approaches to energy conservation and efficiency and renewable energy generation.

Since Council approved CEIF in 2017, Energy Evolution has advanced substantially, started implementing priority projects and launched the Better Homes Ottawa Loan Program. Other levels of government, utilities and local organizations have also invested more in private action and community climate projects. For example:

- The [Canada Greener Homes Grant](#) offers up to \$600 for EnerGuide evaluations and up to \$5,000 to help homeowners make energy efficient retrofits to their homes
- Enbridge offers up to \$5,000 in financial incentives through their [Home Efficiency Rebate](#) for home energy assessments and to make energy-efficient upgrades for insulation, air sealing, new windows/doors, water heaters, and high

efficiency boilers or furnaces

- The Government of Canada offers [point-of-sale incentives](#) of up to \$5,000 for consumers who buy or lease an electric vehicle (EV)
- The non-profit [Plug'n Drive](#) offers a \$1,000 incentive for purchases of used electric cars and the [Scrappage Incentive](#) offers \$1,000 when you recycle your old gas car and replace it with a used electric car
- National Resources Canada is funding EV charging stations, an EV Test Drive Concierge project, and EV car sharing pilot in Ottawa
- Environment Canada and Climate Change is funding a project to build collaborative capacity among social inclusion and climate change leaders in Ottawa
- The [Ottawa Climate Action Fund](#) launched in 2021 and exists to catalyze and scale low-carbon solutions to their full potential
- The City maintains a [Community Environmental Projects Grant Program](#) to provide funding to non-profit organizations interested in undertaking small-scale, community-based initiatives that support an environmentally sustainable Ottawa

Going forward, staff do not recommend continuing with a comparable program and will work with other levels of government, utilities, and community partners such as those mentioned in the report to accelerate private action and community climate projects. Staff anticipate that any newly proposed City-led grants, loans, financing tools, or incentives will be structured to support specific Climate Change Master Plan priorities, including Energy Evolution projects. This would help alleviate some of challenges intended to be addressed through CEIF, ensure funds are aligned to Climate Change Master Plan priorities, and target to action areas with the biggest emission reductions. According to Energy Evolution, the five actions which will have the most significant impact on reducing greenhouse gas emissions are:

- Electrifying personal vehicles
- Retrofitting existing residential buildings
- Diverting organic waste from landfill and create renewable natural gas
- Retrofitting existing commercial buildings
- Transitioning to zero emission commercial fleets

Recommendation #2: Approve the spending plan for the \$216,775 unspent funds from Community Energy Innovation Fund and transfer the associated budget from the Community Energy Innovation Fund account (909151) to Energy Evolution (908880)

A total of \$216,775 of CEIF funding was returned to the City. Unspent funding requires approval by Committee and Council to reallocate the funds to other energy efficiency, conservation or renewable energy programs within Ottawa.

Table 2 proposes a spending plan for the returned funds that align with the original intent of CEIF. These funds will support community facing Energy Evolution priority projects including the Residential Retrofit Accelerator program (called Better Homes Ottawa Loan Program), Commercial Retrofit Accelerator program (called Better Buildings Ottawa), Community Improvement Plan, Climate Ambassadors, Fund the Evolution, and engaging senior levels of government. Funds will also be used to leverage additional federal and provincial funds where possible.

The spending plan proposes to extend one existing temporary full-time position to work on the implementation of community facing Energy Evolution projects, complete thermals scans on community buildings, and develop an innovative commercial Local Improvement Charge Program to increase energy efficiency and conservation in commercial buildings, similar to those offered through Property Assessed Clean Energy (PACE) programs in the United States. The funding is for all project related costs

including staff, feasibility and design studies, pilots, construction, and equipment acquisition or installation.

If staff are successful in leveraging funds from other sources, staff will reallocate the funds to other Energy Evolution priority projects, if required. Energy Evolution projects include, but are not limited to, municipal energy conservation, efficiency and fuel switching projects, energy projects at ROPEC, electrical work, upgrades and infrastructure to support the electrification of vehicles, and communication, education and engagement programs that support Energy Evolution objectives.

Table 2: Spending plan for remaining CEIF funds

Project	Estimated Cost	Description	Area
1-year Temporary Full-Time Staff	\$135,000	The temporary full-time position will support the implementation of community facing Energy Evolution projects including the Residential Retrofit Accelerator program (called Better Homes Ottawa Loan Program), Commercial Retrofit Accelerator program (called Better Buildings Ottawa), Community Improvement Plan, Climate Ambassadors, Fund the Evolution, and engaging senior levels of government. Partial funding for this position is eligible under the Federation of Canadian Municipalities Green Municipal Fund.	City-wide
Thermal scans	\$50,000	Thermal scan technology has been found to be an innovative way of identifying energy efficiency opportunities in a building envelope. As part of the Better Buildings	City-wide

Project	Estimated Cost	Description	Area
		Ottawa network, subsidized thermal scans will be offered to non-profit buildings (Part 3) such as social housing apartments and non-profit office buildings to help those buildings become more efficient, provide data on building performance in Ottawa and demonstrate the utility of thermal scan technology for other private building owners. Funding will be used to leverage an additional 50% of funding through the Federation of Canadian Municipalities Green Municipal Fund.	
Development of a Commercial Local Improvement Charge program	\$31,775	A financing program for commercial, industrial, and multi-unit residential buildings will be developed to offer long term, fixed interest rate financing for energy retrofits of buildings. The financing program will be tied to the property through the local improvement charge, similar to the Better Homes Ottawa Loan Program. Funding will be used to leverage an additional 50% of funding through the Federation of Canadian Municipalities Green Municipal Fund.	City-wide
Total	\$216,775		

FINANCIAL IMPLICATIONS

Funding of \$216,775 to support the proposed spending plan is available within 909151 Community Energy Initiatives and will be transferred to 908880 Energy Evolution.

LEGAL IMPLICATIONS

There are no legal impediments to Committee and Council's approval of the recommendations of this report.

COMMENTS BY THE WARD COUNCILLORS

This is a city-wide report – not applicable.

CONSULTATION

There is no public consultation required with the recommendations in this report.

ACCESSIBILITY IMPACTS

There are no accessibility impacts with the recommendations in this report.

ASSET MANAGEMENT IMPLICATIONS

There are no asset management implications with the recommendations of this report.

CLIMATE IMPLICATIONS

CEIF supports the vision and goals of Energy Evolution: Ottawa's Community Energy Transition Strategy. Projects funded through CEIF increased energy literacy, encouraged behavioural changes, piloted emerging technologies, and enabled innovative approaches to energy conservation and efficiency or renewable energy generation.

ECONOMIC IMPLICATIONS

There are no economic implications with the recommendations of this report.

ENVIRONMENTAL IMPLICATIONS

Refer to the Climate Implications section.

INDIGENOUS GENDER AND EQUITY IMPLICATIONS

There are no indigenous, gender or equity implications with the recommendations of this report.

RISK MANAGEMENT IMPLICATIONS

There are no risk implications with the recommendations of this report.

RURAL IMPLICATIONS

There are no rural implications with the recommendations of this report.

TECHNOLOGY IMPLICATIONS

There are no technology implications with the recommendations of this report.

TERM OF COUNCIL PRIORITIES

CEIF aligns with the current 2019-2022 Term of Council priority, Environmental Stewardship, to grow and protect a healthy, beautiful, and vibrant city that can adapt to change.

SUPPORTING DOCUMENTATION

Document 1 CEIF Project Achievements

DISPOSITION

The Planning, Real Estate and Economic Development Department was responsible for coordinating CEIF.

The suspension of the *Rules of Procedure* to consider this report at the City Council meeting of March 23, 2022, due to time sensitivity. This suspension is required as the

program is sensitive to season temperature changes between day and night. By suspending the rules to permit the report to rise council on March 23, 2022, allows the program better certainty with data.

* Note: A minor correction was made to the report pursuant to the City Clerk's Delegated Authority to correct clerical, spelling, or minor errors of an administrative nature as set out in Schedule C, Subsection 7 of *Delegation of Authority By-Law* (being By-Law No. 2022-29) to correct an error in Recommendation 2 (of the French report recommendations) where an incorrect account number (090151) had been listed for the Community Energy Innovation Fund instead of the correct one (909151).

Document 1 – CEIF Project Achievements

a) Glebe Community Association – Environment Committee's *Glebe Community Centre Energy and Carbon Reduction Project*

The Glebe Community Centre is one of the highest energy consuming community centres in Ottawa. To address this, the Glebe Community Association, in collaboration with the City of Ottawa's Building Engineering and Energy Management Unit, replaced 11 poor performing windows in the Glebe Community Centre with innovative, high performing windows produced by LiteZone to significantly reduce energy consumption in the building. The project served as a demonstration project for the community as the windows are the first of their kind in Ottawa with an R-value of 11 (compared to an R-value of 3 or 4 for efficient triple pane windows) and an expected lifespan of over 60 years (three times longer than most triple pane windows). Increased occupant comfort was reported early in the project following the replacement of three large windows in the Glebe Cooperative Nursery School Room and the energy performance of the Glebe Community Centre will continue to be tracked.

b) Ottawa Community Housing's *Tenant Energy Engagement Project*

The Tenant Energy Engagement Project (TEEP) successfully installed 565 thermostats in five Ottawa Community Housing (OCH) buildings. The buildings also received a display in the lobby that demonstrated the building's utility consumption and the energy savings in each building. Each community received three presentations from OCH's Conservation and Sustainability Facilitator with a focus on energy conservation and sustainability topics. Tenants were also given the opportunity to share their knowledge and experience by explaining how they save energy or conserve energy in their day to day lives. Most tenants attending the sessions were very interested to know building-level energy consumption of their community.

c) The Recreation Association of Public Service of Canada (RA Centre)'s *Helping Ottawa Be Physically Active While Reducing Greenhouse Gases*

The federal government is converting their district heating facilities, which currently heats a portion of the RA Centre's complex of buildings, from high temperature heat loops to low temperature heat loops. As switching to a low temperature system will require equipment changes, the RA Centre, with the assistance of JL Richards, completed a feasibility study of several options to replace the current system. Options included staying with the proposed low temperature system or disconnecting and switching to a new heating source such as conventional gas boilers, central biomass boilers, or ground source heat pump. The process considered current utility rates, greenhouse gas emissions, expected carbon tax rate, operation and maintenance, annual costs, and capital costs. Based on the results of the study, the RA Centre is pursuing boilers fueled by renewable natural gas to replace the existing high temperature hot water system.

d) Relay Education's *Ottawa Kids' World of Energy*

Relay Education created an Ottawa Kids' World of Energy program that builds energy literacy and encourages behavioural changes in grade 5 and 6 students through full and half day workshops that demonstrate renewable energy technologies. Additionally, they hold Renewable Energy Design Challenges that provide students with the basic materials to compete in wind or solar design challenges. With the assistance of students, teachers and communities throughout Ottawa, Relay Education completed 185 Ottawa Kids' World of Energy workshops over two years, 23 workshops more than originally anticipated, and engaged with 4,492 students. An additional 54 Renewable Energy Design Challenges were completed with 1,416 students taking part. Post-workshop surveys with teachers indicated students had a greater understanding of the positive impacts of energy conservation following the workshops.

e) Sustainable Eastern Ontario Network's *Energy Cube*

Sustainable Eastern Ontario designed and constructed an interactive, mobile display called The Energy Cube created to promote sustainability, energy efficiency, and renewable energy through in-person engagement. A total of seven modules created by 50 interns can be integrated into the display and cover topics such as green walls,

sustainable passive housing, solar siding, and solar blinds. While COVID delayed the ability for in-person outreach and engagement, they were able to pivot to offer virtual engagement in the interim as well as created a documentary about the Energy Cube. To learn more, visit www.energycube.ca.