

**Report to  
Rapport au:**

**Environment and Climate Protection Committee  
Comité de l'environnement et de la protection climatique  
19 June 2018 / 19 juin 2018**

**and Council  
et au Conseil  
27 June 2018 / 27 juin 2018**

**Submitted on June 12, 2018  
Soumis le 12 juin 2018**

**Submitted by  
Soumis par:  
John Smit,  
Director / Directeur,  
Economic Development and Long Range Planning /  
Planning, Infrastructure and Economic Development Department / Service de  
planification, d'Infrastructure et de Développement économique**

**Contact Person  
Personne ressource:  
Marica Clarke, Program Manager, Resiliency and Natural Systems Planning /  
Planning, Infrastructure, and Economic Development Department / Service de  
planification, d'Infrastructure et de Développement économique  
(613) 580-2424, 21611, Marica.Clarke@ottawa.ca**

**Ward: CITY WIDE / À L'ÉCHELLE DE  
LA VILLE**

**File Number: ACS2018-PIE-EDP-0033**

**SUBJECT: Energy Evolution: Ottawa’s Community Energy Transition Strategy, Phase 2 Update**

**OBJET: Évolution Énergétique : Compte Rendu sur la Phase 2 de la stratégie de la Collectivité d’Ottawa pour la transition énergétique**

## **REPORT RECOMMENDATIONS**

**That Environment and Climate Protection Committee recommend Council:**

- 1. Receive the implementation status update of the Energy Evolution Strategy, as described in this report and attached as Documents 1 and 3; and**
- 2. Approve the list of projects to be funded by 2018 Hydro Ottawa dividend surplus, as described in this report and listed in Document 2.**

## **RECOMMANDATIONS DU RAPPORT**

**Que le Comité de l’environnement et de la protection climatique recommande au Conseil :**

- 1. de prendre connaissance de la situation de la mise en œuvre de la stratégie Évolution énergétique, comme elle est décrite dans le présent rapport et jointe à titre de pièces 1 et 3;**
- 2. d’approuver la liste des projets qui seront financés au moyen des dividendes excédentaires d’Hydro Ottawa pour 2018, comme ils sont décrits dans le présent rapport et énumérés dans la pièce 2.**

## **EXECUTIVE SUMMARY**

### **Assumptions and Analysis**

This follow-up report responds to the direction to staff at the December 13, 2017 Council meeting:

“That staff report back to Committee and Council with an update on the status and implementation of Energy Evolution by Q2, 2018.”

Phase 1 of Energy Evolution: Ottawa’s Community Energy Transition Strategy was approved by Council on December 13, 2017 (ACS2017-PIE-EDP-0048). It framed the beginning of a strategy for Ottawa and approved a three-year action plan designed to manage energy consumption, promote the use of renewable energy and advance local economic development opportunities in Ottawa. Over 30 short term initiatives were

identified for completion in partnership with community partners between 2017 and 2020.

Twelve are planned for completion in 2018 with all but one currently underway. Two projects, establishment of a Community Energy Innovation Fund and an economic analysis to determine the feasibility of air source heat pumps in city facilities, are now complete.

Some of the 2018 – 2020 projects have also been initiated as collaborative opportunities to move them forward presented themselves:

- The Biogas Optimization Study being initiated between PWES and PIED for example, aims to increase the use of biogas at City facilities and has benefits in terms of achieving low cost greenhouse gas emissions reductions, enhancing energy security and supporting Ottawa based businesses and the rural economy.
- Also, City staff and the Ontario Ministry of Agriculture, Food and Rural Affairs are undertaking a scan of City of the Ottawa's propane heated facilities and several City sites meet all high level criteria for a successful biomass installation with locally sourced fuel being used to heat these buildings.
- Gladstone Village as a collaborative project between the City, Ottawa Community Housing and the Federal Government is planned to be both a mixed income community where people of various incomes can live, work, walk and access public transit, as well as a low carbon community with district energy, LED lighting and buildings insulated to a much higher standard than the Building Code currently requires.

In all, staff are working on or have completed 19 of 22 actions to start in 2017 or 2018. A status of each project is outlined in Document 1.

One of the short term actions is the Community Energy Innovation Fund (action #30) that received \$500,000 as part of the 2018 capital budget. The Terms of Reference for this fund was approved by Council on March 29 (ACS2018-PIE-EDP-0011). Twenty applications for this funding are now being reviewed by a staff / community collaborative working group established through the Terms of Reference.

In 2016, Council granted \$300,000 towards seven catalyst projects. Collectively, these projects worked to increase energy literacy, pilot emerging technologies, and enable innovative approaches in Ottawa with the potential to lead a change towards renewable energy use and energy conservation. These projects also laid the foundation for them to be scaled up or replicated within the community. A detailed report can be found in Document 3 and some highlights of the projects include:

- A successful ClimateWise Retrofit Project and OCH Tenant Energy Engagement Pilot that focused on increased energy efficiency and literacy in not-for-profit community housing through education and engagement.
- The Ottawa BEEP dashboard, developed to provide an overview of Ottawa's business community GHG emissions by sector across the city and can be found at <https://carbon613.ca/beep-report>. This has been helping business monitor and reduce GHG emissions with regards to waste, electricity, natural gas, and transportation.
- The Ottawa EV Days project was a three-day event held in October 2017 to raise awareness amongst residents of the benefits of switching to electric vehicles, including lower GHG emissions and financial savings from reduced fuel use and maintenance costs. Hundreds of people attended and test drove the vehicles in attendance.
- The Supplemental Use of Electric Water Heating for Environmental and Cost Reduction project and the PV Hot Water at City of Ottawa Facility project introduced new technologies to City facilities to help switch from conventional energy sources to low-carbon energy sources.
- The Urban Innovation Pods project constructed two Pods which are solar powered, off-grid, small standalone buildings that can be placed throughout Ottawa's urban areas and used for innovation products and services. Their flexible and mobile design will help businesses be adaptable to the market they serve.

The Phase 1 Strategy focused primarily on renewable energy generation opportunities, while Phase 2 will focus mainly on opportunities for pursuing energy reductions in the buildings and transportation sectors, which together account for roughly 90 percent of the GHG emissions generated in Ottawa. This will be accomplished through Pathway Studies, which will be developed with the assistance of external experts, the Sustainability Solutions Group (SSG).

SSG will develop a more robust modeling and assessment tool to help Council, staff and community partners determine where to prioritize efforts over the medium and long term, and recommend a longer term roadmap for Ottawa as a thriving city powered by clean, renewable energy. Two additional Phase 2 Pathway Studies will examine the opportunities for energy reduction or renewable energy generation from waste processes, as well as from energy storage and demand management.

SSG is being retained for the duration of the Phase 2 assignment and will also support staff as needed in areas such as stakeholder engagement, report writing and presentations to various stakeholder groups.

The Project Team has designed a robust Stakeholder Engagement Strategy and Public Education Campaign that will enable the exchange of ideas as well as solicit feedback and joint commitments on specific actions from a range of internal and external groups. Staff will be working closely with both the consultants and stakeholders including an executive Steering Committee, internal and external working groups and Councillor Sponsors.

Much of the summer and fall will involve the consultant's background review of City data and materials and developing a modeling methodology. A "Business as Planned" scenario will be developed along with draft technical pathway studies. Fall workshops will be based on the pathway studies and once complete, staff can focus on developing an overall Phase 2 strategy and action plan with the internal and external advisory working groups.

At the same time, the consultants will complete the assessment of potential co-benefits and co-harms attributable to local energy initiatives, finalize the pathway papers, and begin scenario modeling and associated analysis paper, which will help direct a clearer roadmap to transition Ottawa to clean renewable energy.

Staff anticipate a draft strategy and action plan ready for public feedback by June of 2019 with consideration by Committee and Council in September / October 2019.

In 2017, Council directed staff to determine how 1/3 of the 2018 Hydro Ottawa dividend surplus is to be used and return to the Environment and Climate Protection Committee in the spring with a list of recommend energy efficiency projects and programs for approval. A surplus in the amount of \$633,000 is now available for energy efficiency projects and programs. Staff recommend this amount be allocated to eight energy initiatives that will support the Strategy's objectives to reduce energy consumption and GHG emissions, transition to renewable energy sources and promote Ottawa as a centre for innovation. A detailed report can be found in Document 2.

Staff have secured provincial funding to assist with Phase 2 of the Energy Evolution project. \$87,450 has been received from the Ministry of Energy. Additional FCM funding as part of the "Signature Project" fund has also been applied for with the results due in September.

## **Public Consultation/Input**

Participation on the part of numerous stakeholders is paramount to the success of Energy Evolution. The Project Team has designed a robust Stakeholder Engagement and Education Strategy that will enable the exchange of ideas as well as solicit feedback and joint commitments on specific actions from a range of internal and external groups. The following key stakeholders will be participating directly in the development of Energy Evolution, Phase 2:

- A Sounding Board - a group of 150 Community Partners;
- A Steering Committee comprised of executive and senior City staff;
- An Internal Advisory Working Group representing several City departments;
- An External Advisory Working Group comprised of individuals with sector expertise including a member of ESAC, and
- A Councillor Sponsors Group to be re-established following the municipal elections in 2018.

Seven technical workshops will be held with targeted stakeholders (i.e. one for each of the Phase 2 pathway studies) to help discover what actions are feasible for Ottawa. Targeted stakeholders will be identified for each pathway and will include a mix of internal (municipal) and external technical experts. “What We Heard” reports will be developed to summarize and share the feedback received.

A range of promotional and educational materials including the [www.ottawa.ca/energyevolution](http://www.ottawa.ca/energyevolution) webpage, complemented by social and traditional media through the Corporate Communications group will be used to communicate to the public. An e-mail distribution list will also be compiled to give notice of project updates. Finally, an “Energy Expo” event tentatively scheduled for early 2019 will provide an opportunity for residents and local organizations to learn first hand more about Energy Evolution and ways they can contribute to its objectives.

## **RÉSUMÉ**

### **Hypothèses et analyses**

Ce rapport donne suite à la directive, donnée le 13 décembre 2017 par le Conseil municipal au personnel de la Ville :

Que le personnel informe le Comité et le Conseil de l'état d'avancement et du déploiement de la stratégie Évolution énergétique d'ici le deuxième trimestre de 2018.

Le Conseil municipal a approuvé le 13 décembre 2017 la phase 1 de la stratégie Évolution énergétique : la Stratégie de la collectivité d'Ottawa pour la transition énergétique (ACS2018-PIE-EDP-0048), qui a permis de tracer les contours d'une stratégie pour Ottawa et d'approuver un plan d'action triennal destiné à gérer la consommation de l'énergie, à promouvoir l'utilisation de l'énergie renouvelable et à faire progresser les perspectives de développement économique local à Ottawa. Plus de 30 initiatives à court terme ont été recensées pour être menées de concert avec des partenaires communautaires pendant la période comprise entre 2017 et 2020.

Douze initiatives devraient s'achever en 2018 et toutes sont en cours sauf une. Deux projets, la création du Fonds pour l'innovation en matière de technologies énergétiques ainsi qu'une analyse économique servant à déterminer la faisabilité de thermopompes à air dans les installations de la ville sont maintenant terminés.

Certains des projets de 2018 – 2020 ont également été mis en œuvre lorsque des possibilités de collaboration pour leur réalisation se sont présentées :

- L'étude sur l'optimisation du biogaz municipal entreprise par la DGTPE et la DGPIDE par exemple vise à accroître l'utilisation du biogaz dans les installations municipales et comporte des avantages en ce qu'elle permettra d'atteindre à faible coût des objectifs de réduction de nos émissions de gaz à effet de serre, d'améliorer notre sécurité énergétique et de soutenir les entreprises établies dans Ottawa et l'économie rurale.
- De plus, le personnel de la Ville et le ministère de l'Agriculture, de l'Alimentation et des Affaires rurales de l'Ontario entreprennent un examen des installations municipales chauffées au gaz propane et de quelques autres installations dans la ville afin de s'assurer qu'elles satisfont aux critères élevés pour des installations chauffées à la biomasse produite localement pour chauffer ces édifices
- Le Village Gladstone, une collaboration entre la Ville, la Société de logement communautaire d'Ottawa et le gouvernement fédéral, sera une collectivité à revenus mixtes où pourront vivre, travailler, se déplacer à pied et emprunter le transport en commun des personnes de diverses strates économiques tout en étant un milieu à faibles émissions de carbone doté de services énergétiques de quartier, d'éclairage DEL et d'immeubles dont l'isolation dépasse les normes exigées présentement par le Code du bâtiment.

Au total, le personnel s'emploie à réaliser ou a terminé 19 des 22 initiatives dont la mise en œuvre était prévue en 2017 ou 2018. L'état d'avancement de chacune de ces initiatives est présenté dans le document 1.

L'une de ces initiatives à court terme porte sur le Fonds pour l'innovation en matière de technologies énergétiques communautaires (initiative no 30), auquel on a consacré 500 000 \$ dans le budget des immobilisations de 2018. Le mandat de ce fonds a été approuvé par le Conseil municipal le 29 mars 2018 (ACS2018-PIE-EDP-0011). Le personnel de la Ville a reçu 20 demandes relatives à ce financement et sur lesquelles se penche actuellement un groupe de travail collaboratif constitué de membres du personnel et de représentants de la collectivité dans le cadre de ce mandat.

En 2016, le Conseil a consenti des subventions de 300 000 \$ pour sept projets catalyseurs. Ensemble, ces initiatives ont permis de renforcer les connaissances énergétiques, d'expérimenter des technologies émergentes et de mettre en œuvre des approches novatrices dans Ottawa ouvrant la voie à l'utilisation accrue d'énergies renouvelables et à la conservation de l'énergie. Ces initiatives ont également jeté les bases pour en permettre l'expansion ou la reproduction ailleurs dans la collectivité. Un rapport détaillé est présenté dans le document 3 et voici quelques faits saillants des initiatives :

- Un projet de modernisation ClimateWise et un projet pilote concluant de mobilisation des locataires de LCO par la sensibilisation et la mobilisation visant l'amélioration de l'efficacité énergétique et des connaissances à cet égard dans les logements à but non lucratif.
- Un tableau de bord du profil de l'énergie et des émissions des opérations (PEEO) conçu pour fournir un aperçu des émissions de GES des entreprises par secteur sur l'ensemble du territoire de la ville; on le trouve à l'adresse suivante : <https://carbon613.ca/beep-report>. Il aide les entreprises à surveiller et à réduire leurs émissions de GES en ce qui a trait à la production de déchets, à l'utilisation d'électricité et de gaz naturel et au transport.
- Les journées des VE d'Ottawa se sont déroulées sur trois jours en octobre 2017 pour sensibiliser les résidents aux avantages d'adopter des véhicules électriques, notamment la réduction des émissions de GES et les économies attribuables à une consommation réduite de carburant et à une baisse des coûts d'entretien. Des centaines de personnes ont participé à l'activité et ont fait l'essai des véhicules sur place.

- Le projet d'utilisation complémentaire du chauffage électrique de l'eau pour l'environnement et la réduction des coûts et le projet de chauffe-eau photovoltaïque solaire dans les installations de la Ville d'Ottawa ont intégré de nouvelles technologies pour faciliter le passage des sources d'énergie classiques aux sources d'énergie faibles en carbone.
- Dans le cadre du projet de « blocs d'innovation urbaine », deux petits bâtiments autonomes alimentés à l'énergie solaire et non raccordés au réseau d'électricité ont été construits et peuvent être installés dans divers secteurs urbains d'Ottawa et utilisés pour faire la démonstration de produits et de services novateurs. Leur conception flexible et mobile aidera les entreprises à s'adapter à leur marché.

La phase 1 de la Stratégie portait essentiellement sur les perspectives de production de l'énergie renouvelable tandis que la phase 2 mettra l'accent sur les moyens de continuer de réduire la consommation de l'énergie dans les bâtiments et dans le secteur des transports, qui représentent ensemble 90 % des émissions de GES produites à Ottawa. Pour ce faire, on s'appuiera sur des études orientationnelles qui seront conçues avec l'aide d'un groupe d'experts externe, le Sustainability Solutions Group (SSG).

SSG mettra au point une modélisation et une évaluation plus rigoureuses afin d'aider la Ville et ses partenaires communautaires à attribuer des priorités aux efforts à consacrer à moyen et à long terme et à tracer une feuille de route à plus long terme pour faire d'Ottawa une ville prospère, dynamisée par de l'énergie renouvelable propre. Deux autres études orientationnelles au cours de la phase 2 examineront les moyens de réduire la consommation de l'énergie ou de produire de l'énergie renouvelable grâce à des processus de gestion des déchets, ainsi qu'au stockage de l'énergie et à la gestion de la demande.

La Ville fait appel à SSG pour la durée de la phase 2; ce cabinet aidera au besoin le personnel de la Ville dans des secteurs comme la mobilisation des intervenants, la rédaction des rapports et les exposés à présenter à différents groupes d'intervenants.

L'équipe du projet a mis au point deux solides stratégies, l'une pour la mobilisation et l'autre pour la sensibilisation des intervenants, ce qui permettra d'échanger des idées, de réunir des commentaires et de susciter des engagements solidaires relativement à des interventions précises auprès de différents groupes internes et externes. Le personnel de la Ville travaillera en étroite collaboration avec les experts-conseils et les intervenants, notamment le comité d'orientation de la haute direction, les groupes de travail internes et externes et les conseillers municipaux parrains.

Pendant une grande partie de l'été et de l'automne, les experts-conseils passeront généralement en revue les données et les documents de la Ville et mettront au point une méthodologie de modélisation. On mettra au point le scénario des « activités planifiées » de concert avec l'ébauche des études orientationnelles techniques. Les ateliers qui se tiendront à l'automne porteront sur les études orientationnelles, et lorsque ces études seront terminées, le personnel pourra se consacrer à l'ensemble de la phase 2 de la stratégie et du plan d'action avec les groupes de travail consultatifs internes et externes.

Au même moment, les experts-conseils termineront l'évaluation des coavantages et des coinconvénients potentiels attribuables aux initiatives énergétiques locales, en plus de finaliser les documents sur les études orientationnelles et de commencer à rédiger le dossier de modélisation et d'analyse des scénarios, ce qui permettra d'établir une feuille de route plus claire pour mener la transition d'Ottawa avec l'énergie propre renouvelable.

Le personnel de la Ville prévoit que la stratégie et le plan d'action provisoires seront prêts pour que le public puisse les commenter d'ici juin 2019 et pour que le Comité et le Conseil municipal puissent en prendre connaissance en septembre ou en octobre 2019.

En 2017, le Conseil a donné pour consigne au personnel de la Ville d'établir les modalités selon lesquelles on pourrait réaffecter le tiers de l'excédent de dividendes d'Hydro Ottawa pour 2018 au Comité de l'environnement et de la protection climatique au printemps, en plus de recommander les projets et les programmes d'économie d'énergie à approuver. Un excédent de 633 000 \$ peut désormais être consacré à des projets et à des programmes d'économie d'énergie. Le personnel de la Ville recommande que cette somme soit affectée à huit initiatives énergétiques afin de permettre de réaliser le double objectif municipal de la transition avec l'énergie renouvelable propre et de la réduction des émissions de GES. Le Document 2 présente le rapport complet et les détails.

Le personnel a obtenu l'aide financière du gouvernement provincial pour permettre de réaliser la phase 2 du projet Évolution énergétique. Le ministère de l'Énergie a en effet versé la somme de 87 450 \$. Le personnel a aussi demandé à la FCM un financement supplémentaire dans le cadre du « Projet de premier plan »; on attend les résultats de cette demande en septembre.

## Consultations publiques et commentaires

La participation de nombreux intervenants est absolument essentielle au succès de la stratégie Évolution énergétique. L'équipe chargée du projet a mis au point une solide Stratégie de mobilisation et d'information des intervenants, qui favorisera l'échange des idées et permettra de réunir des commentaires et de susciter des engagements solidaires relativement à des initiatives précises auprès de différents groupes internes et externes. Voici les principaux intervenants qui participeront directement à l'élaboration de la phase 2 de la stratégie Évolution énergétique :

- le Conseil de réflexion, constitué de 150 partenaires communautaires;
- le Comité d'orientation, composé de membres de la haute direction et de cadres supérieurs de la Ville;
- le Groupe de travail consultatif interne, représentant plusieurs directions générales de la Ville;
- le Groupe de travail consultatif externe, constitué d'experts de ce secteur, incluant un membre du CCGE;
- le Groupe des conseillers parrains, qu'il faudra remettre sur pied dans la foulée des élections municipales en 2018.

Sept ateliers techniques se tiendront avec des intervenants ciblés (soit un pour chacune des études orientationnelles de la phase 2) afin d'aider à connaître les initiatives viables pour Ottawa. On recensera, pour chacune des études orientationnelles, les intervenants visés, soit les différents experts techniques internes (au sein de l'administration municipale) et externes. On rédigera des rapports sur « ce qui a été dit » pour faire la synthèse des commentaires déposés et pour les diffuser.

Pour communiquer avec le public, on fera appel à différents documents de promotion et d'information, dont la page Web [www.ottawa.ca/evolutionenergetique](http://www.ottawa.ca/evolutionenergetique), ainsi que les réseaux sociaux et les médias traditionnels, en passant par le groupe Communications générales. On compilera également une liste de diffusion électronique afin d'annoncer la publication des comptes rendus sur le projet. Enfin, le salon « Expo Énergie », qui devrait avoir lieu au début de 2019, permettra aux résidents et aux organismes locaux de mieux se renseigner directement sur la stratégie Évolution énergétique et sur les moyens grâce auxquels ils pourront apporter leur concours à la réalisation des objectifs de cette stratégie.

## BACKGROUND

Phase 1 of Energy Evolution: Ottawa's Community Energy Transition Strategy was approved by Council on December 13, 2017 (ACS2018-PIE-EDP-0048). The report responds to 2015 direction from Council for staff to:

“Complete a baseline analysis of energy supply and demand within the City of Ottawa and assess options, in collaboration with community partners, for all such partners to advance energy conservation, energy efficiency and renewable energy generation within their respective areas of control/influence.

This follow-up report responds to the direction to staff at the December 13, 2017 Council meeting:

“That staff report back to Committee and Council with an update on the status and implementation of Energy Evolution by Q2, 2018.”

At the Environment and Climate Protection Committee of November 21, 2017 Councillors discussed the allocation of a potential Hydro Ottawa dividend surplus and its use for Energy Evolution projects and programs. The item was also discussed at the December 5, 2017 Finance and Economic Development Committee (FEDCO) budget deliberations. A motion recommended by FEDCO was approved by Council on December 13, 2017 that:

*“City Council approve that any surplus in the Hydro dividend received in 2018 will be allocated such that 2/3 of the amount be directed towards the Road Resurfacing program and that 1/3 be directed towards energy efficiency programs within the City, with specific projects to be recommended by the Environment and Climate Protection Committee and Council once the specific dollar amount, if any, is known.”*

## DISCUSSION

Energy Evolution: Ottawa's Community Energy Transition Strategy

This report responds to direction from Council to begin work on Phase 2 Energy Evolution and report back to Committee and Council with an update on the status and implementation of the strategy by Q2, 2018.

Phase 1 of Energy Evolution: Ottawa's Community Energy Transition Strategy was approved by Council on December 13, 2017 (ACS2017-PIE-EDP-0048). Phase 1 accomplished several things:

- articulated an overarching vision and approach to guide the Strategy,

- assessed current energy consumption trends at the community scale
- promoted the use of renewable energy,
- helped advance local economic development opportunities in Ottawa, and
- advanced a short-term action plan with over 30 actions

A number of the short term actions began this winter and spring. Twelve are planned for completion in 2018 with all but one currently underway. Two projects, establishment of a Community Energy Innovation Fund and an economic analysis to determine the feasibility of air source heat pumps in city facilities, are now complete.

#### Phase 1 Action Highlights

Action 6 is the Biogas Optimization Study which owing to industry and internal interest, has started earlier than originally planned. The optimization and increased use of biogas has benefits in terms of achieving low cost greenhouse gas emissions reductions, enhancing energy security and supporting Ottawa based businesses and the rural economy.

This study will provide input into further waste management planning the Public Works needs to undertake and with the completion of a grant submission, may receive a substantial portion of its funding from the Canadian Federation of Municipalities. Already, an initial scope work has been developed and meetings are planned for later this month with Public Works and PIED staff. With a broad terms of reference, and the

Action 11 involves Ottawa Community Housing's Eco<sup>2</sup> Plan to pilot green energy technologies and programs that benefit OCH tenants, the city and the environment. Its' objective is to aim for the highest, most financially feasible energy performance in new affordable housing developments by taking inspiration from leading energy certifications like the Passive House standard.

Ottawa Community Housing is currently undertaking the development of Gladstone Village adjacent to the future Gladstone Trillium Line LRT Station as this pilot. This area is not only planned to be both a mixed income community where people of various incomes can live, work, walk and access public transit, it will also be a low carbon community with district energy, LED lighting and buildings insulated to a much higher standard than the Building Code currently requires. This development will not only be an excellent example of sustainable development from an environmental perspective, it is also an excellent example of high density, mixed use, transit oriented development.

One of the short term action items was the Community Energy Innovation Fund (action #30), a one-time \$500,000 program that funds local, community-based projects that support the goals and vision of Energy Evolution. The Terms of Reference for the Community Energy Innovation Fund was approved by Council on April 11, 2018 (ACS2018-PIE-EDP-0018) and the program launched April 13, 2018. Applications were accepted until May 31, 2018. Twenty applications for this funding will be reviewed by an Allocation Panel composed of two City staff and two subject-matter experts selected from within the community are responsible for selecting the funding recipients. A project funding announcement will be made in July 2018.

Action #33 involved working with Ottawa's community partners to establish a Low Carbon Innovation Centre with community partners as part of the Low Carbon Cities Canada (LC3) initiative. Ottawa is one of six cross-Canada participating jurisdictions (including the Atmospheric Fund leading this initiative), that have submitted a proposal to the federal Low-Carbon Economy Fund in support of lowering carbon emissions through innovation by demonstrating, de-risking, developing local solutions and boosting knowledge-sharing. If the proposal is accepted, each centre would receive a substantial endowment, likely in the order of \$15 to \$30 million. The Ottawa Community Foundation (OCF) is coordinating a group of about 20 local contributors, each with relevant expertise in this endeavour. At the time of the writing of this report, no decision on funding had been made.

Some of the 2018 – 2020 projects have been initiated as collaborative opportunities to move them forward presented themselves. In all, staff are working on or have completed 19 of 22 actions to start in 2017 or 2018. A status of each project is outlined in Document 1.

#### 2017 Energy Evolution Catalyst Project Program

In December 2016, the City launched the Energy Evolution Catalyst Projects program, a one-time \$300,000 fund that supports Energy Evolution's vision and goals. Under the program, catalyst projects were initiatives led by Ottawa-based organizations that either served as demonstration projects or laid the foundation for demonstration projects that could be scaled up in the future. Collectively, these projects were intended to increase energy literacy, pilot emerging technologies, and/or enable innovative approaches. A total of seven projects received funding:

- Canada Green Building Council, Ottawa Renewable Energy Co-operative, and EnviroCentre ClimateWise Retrofit Project;
- EnviroCentre Ottawa Business Energy and Emissions Profile (BEEP);

- EnviroCentre Ottawa EV Days;
- Hydro Ottawa Supplemental Use of Electric Water Heating for Environmental and Cost Reduction;
- JAZZ Solar Solutions PV Hot Water at City of Ottawa Facility;
- Ottawa Community Housing (OCH) OCH Tenant Energy Engagement Pilot; and
- prototypeD TEAM Inc. Urban Innovation Pods.

The Energy Evolution Catalyst Project program came to an end on December 31, 2017 and each funding recipient was required to complete a project evaluation report that outlined the project's achievements and benefits, how the project could lend itself to being scaled up or replicated within the community in the future, and lessons learned. A summary report detailing the outcomes of the projects can be found in Document 3, and highlights from the program include:

- The ClimateWise Retrofit Project and OCH Tenant Energy Engagement Pilot focused on increased energy efficiency and literacy in not-for-profit community housing through education and engagement. The former undertook energy audits at five high-rise buildings and helped building owners understand the financial viability of retrofits and overcoming identified obstacles to the implementation of deep energy retrofits. The latter focused on tenant engagement by providing bulk metered tenants feedback and measurements of their consumption to inform and modify their consumption behaviour, as well as the necessary tools (e.g. programmable thermostats) to effect change. This project can be replicated in other OCH buildings.
- The Ottawa BEEP project introduced the BEEP dashboard, which provides an overview of Ottawa's business community's GHG emissions by sector across the city and identifies areas with the greatest potential for achieving reductions in the areas of waste, electricity, natural gas, and transportation. The dashboard can be found at <https://carbon613.ca/beep-report> and has already been used by many organizations to reduce GHG emissions.
- The Ottawa EV Days project was a three-day event held in October 2017 to raise awareness amongst residents of the benefits of switching to electric vehicles, including lower GHG emissions and financial savings from reduced fuel use and maintenance costs. Approximately 675 attendees came out over the three-days

and of those surveyed, 89% of attendees reported learning new information about EVs and 76% learned something that would inspire them to purchase/leave an electric vehicle within two years.

- The Supplemental Use of Electric Water Heating for Environmental and Cost Reduction project and the PV Hot Water at City of Ottawa Facility project introduced new technologies to City facilities to help switch from conventional energy sources to low carbon energy sources. The former piloted an innovative software solution that will cue the Building Automation System at Ottawa City Hall as to when to optimally use the thermal electric heating to supplement heating by natural gas; the latter introduced solar PV pre-heating of domestic hot water at Plant Recreation Centre to offset conventional energy with renewable energy. These projects piloted new technologies at City facilities that have the potential to be replicated at other City facilities.
- The Urban Innovation Pods project constructed two Pods which are solar powered, off-grid, small standalone buildings that can be placed throughout Ottawa's urban areas and used for innovation products and services. Two social enterprises have made use of the Pods to date (Growcer and Robot Missions), and more tentative agreements are in the works.

Most projects require close to a year to collect sufficient data to be able to demonstrate project outcomes. Staff will continue to work with those funding recipients and update the Energy Evolution webpage later this year with further information once available.

## Phase 2 Energy Evolution

**Staff have completed several work planning and project initiation milestones to support the development of Energy Evolution Phase 2. A project website is now live and available at <https://ottawa.ca/energy-evolution>. A project charter is also complete, and internal and external working groups, a Sounding Board and an executive Steering Committee have been established to kick-off the project.**

This project also requires consulting services to support the development of several technical "Pathway Studies", detailed energy and alternative scenario modeling, research on social and economic co-benefits and other components that will inform the Phase 2 Strategy. A Request for Proposal (RFP) for professional consulting services was posted to MERX in February, 2018. The City received proposals from several qualified firms, with Sustainability Solutions Group (SSG) ultimately selected as the

preferred proponent through a competitive bidding process. SSG is a Canadian cooperative that has supported more than 30 communities with the development of low-carbon action plans and analyses, including the City of Toronto's recent TransformTO climate action strategy.

Specific deliverables to be completed by the consultant include:

- development of a “business-as-planned” forecast to model potential energy consumption in Ottawa for the year 2050, if no additional actions are taken beyond what is currently planned at the local, provincial and federal level;
- completion of seven technical “Pathway Studies” that outline the potential impact of various energy reduction approaches and scenarios on current and future energy consumption;
- alternative scenario modeling that compiles the outcomes of the technical Pathway Studies and identifies a recommended approach—that is, a suite of distinct policies and actions—for achieving the City's long-term GHG reduction target of 80 percent below 2012 by 2050;
- development of a marginal abatement cost curve that outlines the most cost-effective local energy initiatives relative to those that have longer payback periods or smaller returns on investments; and
- an assessment of potential co-benefits and co-harms attributable to local energy initiatives, including impacts on public health, economic development, social inclusion and equity.

Given the Phase 1 Strategy focused primarily on renewable energy generation opportunities, the Pathway Studies to be developed for Phase 2 will focus mainly on opportunities for pursuing energy reductions in the buildings and transportation sectors, which together account for roughly 90 percent of the GHG emissions generated in Ottawa. Two additional Phase 2 Pathway Studies will examine the opportunities for energy reduction or renewable energy generation from waste processes as well as from energy storage and demand management.

Each Pathway Study will review a select number of technologies, programs or approaches, and will estimate the potential of each to reduce the amount of fossil fuel energy consumed in Ottawa under conservative, moderate and aggressive uptake scenarios. The purpose of these Pathway Studies is to support staff, stakeholders and decision makers in identifying the most promising actions, policies and opportunities for reducing energy consumption over the short, medium and long term.

SSG is being retained for the duration of the Phase 2 assignment and will also support staff as needed in areas such as stakeholder engagement, report writing and presentations to various stakeholder groups.

The Project Team has designed a robust Stakeholder Engagement Strategy and Stakeholder Education Strategy that will enable the exchange of ideas as well as solicit feedback and joint commitments on specific actions from a range of internal and external groups. Staff will be working closely with both the consultants and stakeholders including an executive Steering Committee, internal and external working groups and Councillor Sponsors. Below is a chart outlining the Energy Evolution Phase 2 strategy deliverables and the timing for engaging with different stakeholders.

#### Key Deliverables and Projected Target Completion Dates

<u>Deliverable</u>	<u>2018</u>	<u>2019</u>
Consultant startup	April / May	
Advisory Working Groups	Major deliverables	Major deliverables
Sounding Board Feedback	June	February and June
Sponsor Group		February and June
Pathway development	June to November	
Pathway (technical) workshops	October	
Public Education Event	Post elections	January
Modeling and analysis		February
Draft strategy and action plan released for public feedback		June
Public input into strategy and action plans		June to September
Strategy and action plan to Committee and Council		September and October

The Councillor Sponsors Groups working with staff on this file will no longer be in place after November 30, 2018. Staff will work with the next Chair of the Environment on a recommendation with respect to a new Sponsors Group related to this file.

## Environmental Stewardship Advisory Committee

**Staff initiated a “soft launch” of the project in a presentation to the Environmental Stewardship Advisory Committee (ESAC) on March 29, 2018 and now have a member of ESAC onboard who will participate in the external working group starting on the June 14, 2018 meeting.**

**ESAC members expressed interest in the linkages of the Phase 2 project with waste management on the impact of multiple streams of waste as well as waste diversion in multi-unit residential buildings. They also asked whether the modeling would include the potential for the electrification of buses in Ottawa. Staff will integrate these items into the working group agendas for further discussion and consideration by the consultant.**

## Funding for Phase 2 Strategy Development

Staff have secured provincial funding to assist with Phase 2 of the Energy Evolution project. \$87,450 has been received from the Ministry of Energy, the majority of which will be allocated to specific tasks and deliverables undertaken by the consultant, SSG. A small portion of the funds will also be used to support stakeholder engagement activities, such as a public open house, and to render documents accessible as per AODA regulations. Additional FCM funding as part of the Green Municipal Fund “Signature Projects” funding program has also been applied for with the results due in September. If successful, FCM grant funding will be used similarly to offset consulting costs incurred by the City over the course of the project.

A grant application to support development of the Phase 2 Strategy has also been submitted to the Federation of Canadian Municipalities’ as a “Signature Project” under the Green Municipal Fund (GMF). If successful, the City can expect to receive approximately \$90,000 in additional external funding to support development of the Phase 2 Strategy. A draft of the City’s application has been pre-reviewed by the GMF’s technical review committee to ensure it meets the requirements of the Fund; staff anticipate a final decision regarding funding approval to be made by FCM in September 2018.

## Hydro Ottawa Dividend Surplus

At the Environment and Climate Protection Committee of November 21, 2017 staff were directed to determine how the Hydro Ottawa dividend surplus is to be used and return to the Environment and Climate Protection Committee in the spring to recommend energy

projects for approval. A later motion at Finance and Economic Development Committee through the 2017 budget deliberations was approved by Council that directed:

“... any surplus in the Hydro Ottawa dividend in 2018 will be allocated such that 2/3 of the amount be directed towards the Roads Resurfacing program and that 1/3 be directed towards energy efficiency programs within the City, with specific projects to be recommended by the Environment and Climate Protection Committee and Council once the specific dollar amount, if any, is known.”

One third of the 2018 Hydro Ottawa dividend surplus, \$633,000, is now available for energy efficiency projects and programs for 2018. Staff recommend this amount be allocated to eight projects that will support the Strategy’s objectives of reducing energy consumption and GHG emissions, transitioning to renewable energy sources and promoting Ottawa as a centre of innovation. These projects range from lighting and heating upgrades at municipal facilities to fuel switching projects that promote biomass heating and electric vehicles. These recommended projects are outlined in more detail in Document 2.

### **Next Steps**

Much of the summer and fall will involve the consultant’s background review of City data and materials and developing a modeling methodology. A “Business as Planned” scenario will be developed along with draft technical pathway studies. Fall workshops will be based on the pathway studies and once complete, staff can focus on developing an overall Phase 2 strategy and action plan with the internal and external advisory working groups.

At the same time, the consultants will complete the assessment of potential co-benefits and co-harms attributable to local energy initiatives, finalize the pathway papers, and begin scenario modeling and associated analysis paper, which will help direct a clearer roadmap to transition Ottawa to clean renewable energy.

Staff anticipate a draft strategy and action plan ready for public feedback by June of 2019 with consideration by Committee and Council in September / October 2019.

### **RURAL IMPLICATIONS**

There are good rural opportunities for renewable energy generation and energy conservation. The strong focus on buildings planned in Energy Evolution phase 2 stands to serve rural areas very well. With less access to lower cost fuels such as natural gas and more expensive electricity from Hydro One in many areas, a drive

towards more efficient buildings will provide proportionately higher benefits to Ottawa's rural residents.

## **CONSULTATION**

### Project Stakeholders

Participation on the part of numerous stakeholders is paramount to the success of Energy Evolution. From initially working with the development of big ideas to developing a vision and goals, landing business cases and policy actions with technical stakeholders, community partners have been and will continue to be integral to the development of Energy Evolution Phase 2.

Council directed among other things that the project "assess options, in collaboration with community partners, and for all such partners to advance energy conservation, energy efficiency and renewable energy generation within their respective areas of control/influence." Staff have structured different levels of engagement to allow stakeholders to be able to most comprehensively advise on the development of the Phase 2 strategy and action plan.

The Project Team has designed a robust Stakeholder Engagement Strategy that will enable the exchange of ideas as well as solicit feedback and joint commitments on specific actions from a range of internal and external groups. The following key stakeholders will be participating in the development of Energy Evolution, Phase 2:

- Sounding Board - the Sounding Board is a group of 150 Community Partners made up of representatives from local energy utilities, the federal government, the development industry, schools and academic institutions, non-profit organizations and the private sector. The Sounding Board was instrumental in establishing the goals and vision for Energy Evolution: "Ottawa is a thriving city powered by clean, renewable energy."

As it relates to the Phase 2 work, the Sounding Board will continue to be engaged through periodic updates on the project to ensure that the strategy is well understood and supported by local partners in the community. Members may be asked to participate in targeted workshops or meetings throughout the project.

- Steering Committee - the Steering Committee is comprised of the General Managers from the following City departments: Planning, Infrastructure and Economic Development, Corporate Services, Recreation, Cultural & Facility Services, Public Works and Environmental Services, and the Director of Economic Development and

Long Range Planning, the Manager of Business Support Services and the Program Manager of Resiliency and Natural Systems Planning. The Steering Committee will be led by an Executive Sponsor, Steve Willis, General Manager (Planning, Infrastructure and Economic Development Department).

- Internal Advisory Working Group - this group contains representatives from across a number of city departmental branches from Planning, Infrastructure and Economic Development, Housing, Public Health, Transportation Planning, and Transportation Services Departments. Participants will attend meetings at milestone points in the project to receive information and provide advice and input on proposed actions, as well as to disseminate information to their respective departments. The first meeting kicks off June 14, 2018.
- External Advisory Working Group - this group is comprised of individuals with sector expertise in their areas of specialization (i.e. economic development, housing, building code, energy generation and conservation, community development, infrastructure, environmental conservation, waste, transportation, education and a member of ESAC). This group will be responsible to meet at regular intervals over the course of the project to review key deliverables, share updates with their respective organizations and provide advice to the Project Team. The first meeting kicks off June 14, 2018.
- Councillor Sponsors Group - this group will be re-established following the municipal elections in 2018 and will comprise a number of elected officials to provide feedback on the draft strategy and to serve as political champions for the action items.

### Targeted Stakeholder Engagement

A critical piece of the Phase 2 Energy Evolution work is the development of a set of priority short, medium and long term actions in order to set Ottawa on a proactive path towards a clean energy and low carbon future. Seven technical workshops will be held with targeted stakeholders (i.e. one for each of the Phase 2 pathway studies) to help discover what is and what is not feasible for Ottawa. Targeted stakeholders will be identified for each pathway and will include a mix of internal (municipal) and external technical experts. “What We Heard” reports will be developed to summarize and share the feedback received.

## CafeX

Staff have obtained access to an innovative software program called CafeX for engagement and information sharing purposes. Specifically, the program is an enhanced communication tool with web and mobile application capabilities (i.e. smartphones and tablets) that allow for instant file sharing and the exchange of comments and ideas. This tool will be a significant communication tool with Community Partners.

## Public Education Campaign

The goal of the public education campaign is to increase the level of energy literacy on the part of residents as well as enhance the level of understanding and support for Energy Evolution. The education campaign strategy will ensure that timely updates are provided at key milestones throughout the project as well as ensure that communications reach all communities including rural, suburban and urban areas.

A range of promotional and educational tactics will be used to reach and inform the general public. The primary portal for public access to information will be through the [www.ottawa.ca/energyevolution](http://www.ottawa.ca/energyevolution) webpage, complemented by social and traditional media through the Corporate Communications group. An e-mail distribution list will be compiled to give notice of project updates.

The Phase 2 work plan includes the organization of an “Energy Expo” event, to be held at City Hall, which will provide an opportunity for residents and local organizations to learn more about Energy Evolution and ways they can contribute to its objectives. This event is tentatively scheduled for early 2019.

A number of valuable opportunities exist to engage with residents upon completion of the Energy Evolution Strategy. City representation at public events should be planned to give guidance on the priority action areas that citizens can undertake themselves in furthering the goals of this strategy.

## **COMMENTS BY THE WARD COUNCILLORS**

This is a City-wide report – not applicable.

## **LEGAL IMPLICATIONS**

There are no legal implications associated with implementing the recommendations contained within this report.

## **RISK MANAGEMENT IMPLICATIONS**

There are no risks associated with this report.

## **ASSET MANAGEMENT IMPLICATIONS**

The information documented in this report is consistent with the City's Comprehensive Asset Management (CAM) Program ([City of Ottawa Comprehensive Asset Management Program](#)) objectives.

The opportunities for pursuing energy reductions in the buildings and transportation sectors being developed for Phase Two assists to fulfil the City's obligation to deliver quality services to the community. The recommendations of this report will demonstrate delivery of the plans in a way that balances service levels, risk, and affordability.

## **FINANCIAL IMPLICATIONS**

Recommendation 1: There are no financial implications associated with receiving the implementation status update. Recommendation 2: Funding in the amount of \$633,000 has been established within 909255 Renewable Energy Transition Projects.

## **ACCESSIBILITY IMPACTS**

There are no accessibility impacts associated with this report.

## **ENVIRONMENTAL IMPLICATIONS**

This work will assist the City in moving towards a renewable energy future where a GHG reduction of 80 per cent above 2012 levels by 2050 is achievable.

## **TERM OF COUNCIL PRIORITIES**

This work aligns to the Sustainable Environmental Services (ES) Strategic Priority:

To provide sustainable environmental services that balance protection of our natural resources and support the planned growth of the city with the duty to ensure fiscal sustainability and meet legislative requirements in the delivery of municipal services.

**SUPPORTING DOCUMENTATION**

Document 1 Status of Energy Evolution Phase 1 Short Term Actions

Document 2 Projects Recommended for 2018 HOL Surplus Dividend Funding

Document 3 Energy Evolution Catalyst Project Program Summary Report

**DISPOSITION**

Following approval by Council, staff will carry out the recommendations in this report, as appropriate.

## Document 1 - Status of Energy Evolution Phase 1 Short-Term Actions

The following table outlines the implementation status of Energy Evolution Phase 1 Actions being initiated in 2017-2018.

Action	Status	Notes
Action 1: Develop a framework for virtual net-metering (VNM) in collaboration with Hydro Ottawa	Initiated	<ul style="list-style-type: none"> <li>Funding sources are being developed and discussions are continuing with prospective generators.</li> </ul>
Action 3: Pilot a small-scale virtual net metering project where the VNM credits can be purchased by one or more organization	Pending	<ul style="list-style-type: none"> <li>Community Partner has funding to proceed with project but requires framework for selling the renewable electricity credits to a buyer (VNM framework).</li> </ul>
Action 4: Build a 500-kilowatt (kW) mini-hydropower system at the Burritts Rapids dam	Pending	<ul style="list-style-type: none"> <li>Community Partner has funding to proceed with project but requires framework for selling the renewable electricity credits to a buyer (VNM framework).</li> </ul>
Action 5: Convene stakeholders from the development industry and renewable energy sector to facilitate dialogue and solutions for making grid connections easier (e.g., addressing grid capacity and constraints, identifying opportunities to integrate renewable energy in new developments, etc.)	Initiated / Ongoing	<ul style="list-style-type: none"> <li>The Ottawa Renewable Energy Co-op has started discussions with Hydro Ottawa and the City on all identified issues.</li> <li>Staff have also initiated related work with Quality Urban Energy Systems of Tomorrow (QUEST) and the Clean Air Partnership on a “Planning Alignment” initiative to discuss challenges and to identify opportunities for better alignment of objectives between the City, local energy distribution companies (Hydro Ottawa,</li> </ul>

Action	Status	Notes
		Enbridge Gas, etc.) and the Independent Electricity System Operator.
<p>Action 6: Undertake a technical and economic analysis to assess current as well as leading-edge practices for the production and utilization of biogas at the Robert O. Pickard Environmental Centre and in other relevant municipal applications (e.g., collection and treatment of household organics, potential for CNG fleet vehicles, etc.). Develop and issue a Request for Information (RFI) or Expression of Interest (EOI) to gather information on commercially-viable products and companies with expertise in biogas and renewable natural gas</p>	Initiated	<ul style="list-style-type: none"> <li>Staff are collaborating with PWES to develop a Scope of Work for the study that incorporates the planned refurbishment of ROPEC's cogeneration assets as well as opportunities for alternative biogas usage, such as production of renewable natural gas and power-to-gas (hydrogen) options.</li> </ul>
<p>Action 7: Undertake a scan of propane-fueled municipal buildings where existing heating equipment is due for replacement. Use Natural Resources Canada's RETScreen software to assess and identify facilities that can economically be converted from propane to</p>	Initiated	<ul style="list-style-type: none"> <li>Staff have reviewed the list of City facilities using propane for heating and have identified the Carp Depot at 2847 March Road as a site potentially suitable for conversion to biomass heating .</li> <li>Staff are working with Community Partners at OMAFRA and CanmetENERGY to collect the necessary data to</li> </ul>

Action	Status	Notes
biomass (i.e., wood pellet) heating systems		run analyses using the RETScreen software.
Action 8: Investigate the opportunity to develop a Community Improvement Plan (CIP) in a rural area of the city to promote fuel switching (e.g., propane to biomass heating systems) and to stimulate economic development	Initiated	<ul style="list-style-type: none"> <li>• Staff have been in contact with the Hearth, Patio and Barbecue Association of Canada (HPBAC) with regards to a woodstove change-out program component of this CIP.</li> <li>• Ontario's Climate Change Action Plan is promising a new grant program in 2018 to switch out older polluting wood stoves.</li> </ul>
Action 10: Undertake an economic analysis to determine the feasibility of integrating air-source heat pumps into City facilities currently heated by natural gas	Complete	<ul style="list-style-type: none"> <li>• The analysis has been completed and staff are now considering format options for sharing the findings (e.g., case study, white paper, etc.).</li> </ul>
Action 11: Implement the Ottawa Community Housing Eco <sup>2</sup> Plan to pilot green energy technologies and programs that benefit OCH tenants, the city and the environment. Continue to aim for the highest, most financially feasible energy performance in new affordable housing developments by taking inspiration from leading energy certifications like the	In Progress / Ongoing	<ul style="list-style-type: none"> <li>• Ottawa Community Housing continues to implement various programs and initiatives within the framework of its Eco<sup>2</sup> Plan, including current construction of the Carlington Community Health Hub, which is being constructed to meet PassiveHouse standards.</li> </ul>

Action	Status	Notes
Passive House standard		
Action 15: Advocate for the return of federal or other incentives to support ground source heat pumps, such as those previously available through the ecoENERGY program	Initiated	<ul style="list-style-type: none"> <li>• An initial advocacy letter has been drafted.</li> <li>• Rebates for a variety of residential ground source heat pump systems are currently available through the GreenON program.</li> </ul>
Action 16: Advocate to provincial government for a low-temperature design standard as part of the Building Code amendments	Not Initiated	
Action 17: Hook up cooling in City Hall to the district energy network in the short term and make plans for a heating hook-up.	Initiated	<ul style="list-style-type: none"> <li>• Planning for this action is currently taking place within the broader discussions surrounding the signing of a Memorandum of Understanding on district energy between the City and the federal government.</li> </ul>
Action 18: Develop a Memorandum of Understanding (MOU) between the City and the federal government to explore and encourage district energy connections in both new and existing City facilities	Initiated	<ul style="list-style-type: none"> <li>• Staff are currently in discussions with Public Services and Procurement Canada and the Treasury Board of Canada.</li> </ul>
Action 19: Develop a low-carbon district energy system that can be promoted as a	Initiated	<ul style="list-style-type: none"> <li>• Staff are working with Ottawa Community Housing to determine the feasibility of</li> </ul>

Action	Status	Notes
high-priority economic impact project. This will generally be in a high growth node or corridor which includes district energy system installation and connections		establishing a district energy system for the Gladstone Village, one of Ottawa's major growth nodes.
Action 21: Investigate the requirements for access to the City's road right-of-ways for the purposes of district energy infrastructure	Not Initiated	
Action 23: Advocate for Building Code amendments that require buildings of a certain size and location to be built to be compatible for future district energy connections	Not Initiated	
Action 25: Establish an Electric Vehicle Discovery Centre in Ottawa	Initiated	<ul style="list-style-type: none"> <li>• Plug 'N Drive is making progress on sponsorship. Staff and community partners are exploring opportunities to operationalize a centre for Ottawa.</li> </ul>
Action 26: Continue to host Ottawa EV Day events and educational sessions to engage residents	Ongoing	<ul style="list-style-type: none"> <li>• Three EV Day events were coordinated by EnviroCentre using Energy Evolution Catalyst Project program funding in 2017. EnviroCentre is currently exploring opportunities to host a single, larger EV Day event in the outer Ottawa area in fall 2018.</li> </ul>

Action	Status	Notes
Action 27: Install a 150 kW EV charging station in Ottawa as a pilot/demo project	Initiated	<ul style="list-style-type: none"> <li>Approximately \$40,000 of external partner funding has been secured, with an additional \$50,000 in federal grant funding pending. A final decision on project funding is expected in June. With recent technology developments, the actual capacity of the charger will be greater than 160 kW.</li> </ul>
Action 30: Establish a Community Energy Innovation Fund	Complete	<ul style="list-style-type: none"> <li>Terms of Reference for the Community Energy Innovation Fund were approved by City Council on April 11, 2018 and the Fund was subsequently launched on April 13<sup>th</sup>, with applications received until May 31, 2018.</li> </ul>
Action 32: Develop Phase 2 Energy Evolution in collaboration with community partners, including the development of a long term governance model.	Initiated	<ul style="list-style-type: none"> <li>Development of the Phase 2 Strategy is currently on schedule, as outlined in the preceding Committee Report.</li> </ul>
Action 33: Work with community partners to establish a Low Carbon Innovation Centre for Ottawa as part of the Low Carbon Cities Canada (LC3) initiative being led by The Atmospheric Fund (TAF)	Initiated	<ul style="list-style-type: none"> <li>A list of candidate projects for a federal government funding application is being drafted.</li> </ul>