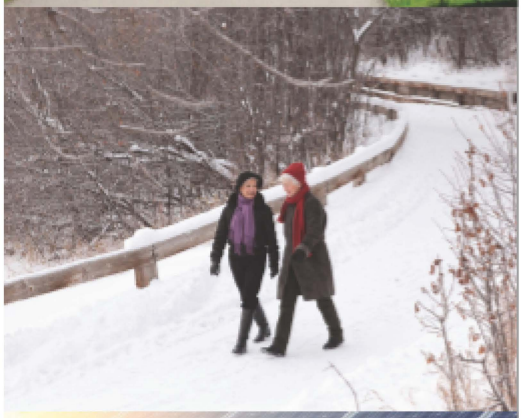

City of Edmonton
Office of the City Auditor

Environmental Strategies Audit

May 31, 2021

1200 Scotia Place, Tower 1
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Edmonton, AB T5J 3R8
780-496-8300
edmonton.ca/auditor

OCA00656 – Attachment 1

Report Highlights

Audit Objectives

This audit had four objectives:

1. To determine if the programs to support the City's environmental strategies are performing as intended.
2. To determine if program funding is secure and adequate.
3. To determine if the performance measures accurately reflect the performance of the programs.
4. To determine if the City's environmental strategies and programs are positioned to be effective.

Scope

The scope of programs reviewed was limited to the five, City funded, public-facing community programs managed by the City Environmental Strategies section with the exception of the review of performance measures. This review included a selection of additional program and corporate measures.

The time period under review was 2015 to 2021.

Enviso (the City's environmental management system) and operational work related to utility management was out of scope.

Internal-facing environmental programs, such as LED streetlight replacement or electric bus operations, were out of scope for this audit, but have been suggested for consideration in a future audit.

Statement of Professional Practice

This project was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing

Executive Summary

Summary

In 2015, City Council adopted Policy C585 Edmonton's Community Energy Transition Strategy, which outlines the goal to be an energy sustainable city. The City Environmental Strategy section developed and implemented five community programs to help achieve that goal.

This audit examined the operation of those five programs by reviewing program strategy and information, program performance, program funding, and program alignment and implementation. In addition, we looked at program and corporate performance measures.

The results of this audit indicate that the programs are performing as intended and that funding is secure and adequate. Performance measures may not accurately reflect program performance and can be improved. The City is implementing a business planning process that can improve how environmental strategies are implemented in the future.

Conclusions

Are the programs performing as intended?

Four of five community programs to support the City's environmental strategies are performing as intended. There is clear alignment between the programs and the City's approved Community Energy Transition Strategy. Individual program costs and participation are aligned to program budgets and outputs. Program outcomes are aligned to the Community Energy Transition Strategy and available evidence suggests they are being achieved.

Is program funding secure and adequate?

Program funding is secure and adequate. Program funding is sourced from the tax levy. As a result, changes to Council priorities is the key risk to funding security. Funding budgeted for specific programs is adequate to satisfy program demand.

Do performance measures accurately reflect the performance of the programs?

Program performance measures may not accurately reflect the performance of the programs. Although the City's Environmental Strategies section has measures to assess program performance, issues when recalculating the results raises concerns about the accuracy and reliability of the performance measure results.

Are the programs and strategies positioned to be effective?

The City's environmental strategies and programs are positioned to be effective. Ongoing changes to business planning approaches are improving the ability of the City organization to implement complex, organization-wide strategies. The ongoing shift towards a top-down business planning process in the organization will increase the effectiveness of implementing these strategies by ensuring a more structured, corporate approach is in place.

Recommendation

This audit includes one recommendation to improve performance measurement.

Strategy and Program Information

Community Energy Transition Strategy and Environmental Strategies Section

In 2015, City Council adopted Policy C585 *Edmonton's Community Energy Transition Strategy*. This policy describes the City of Edmonton's goal to be an energy sustainable city and outlines the approaches and principles to encourage the transition.

The *Community Energy Transition Strategy* (a detailed strategy document with the same name as policy C585) expands on that policy to develop strategic courses of action and an eight-year plan to advance the policy goals. It describes the "market transformation approach[1] that the City is taking to achieve changes as identified in policy C585 and models the effects of potential community programs.

The City identifies the Community Energy Transition Strategy as a 'Big City Move: Greener as we Grow' in the City Plan approved by City Council in 2020.

The City Environmental Strategies section of the Urban Form and Corporate Strategic Development department oversees the five community facing programs examined during this audit.

During this audit, the City Environmental Strategies section was working on an update of the 2015 Community Energy Transition Strategy in recognition of significant changes that have occurred since it was first adopted. This includes the impacts of COVID-19, adoption of the Paris agreement, and the approval of ConnectEdmonton and the City Plan. The revised strategy was approved by City Council on April 19, 2021. As a result of the timing, all references to the Community Energy Transition Strategy discussed in this audit refer to the original 2015 document.

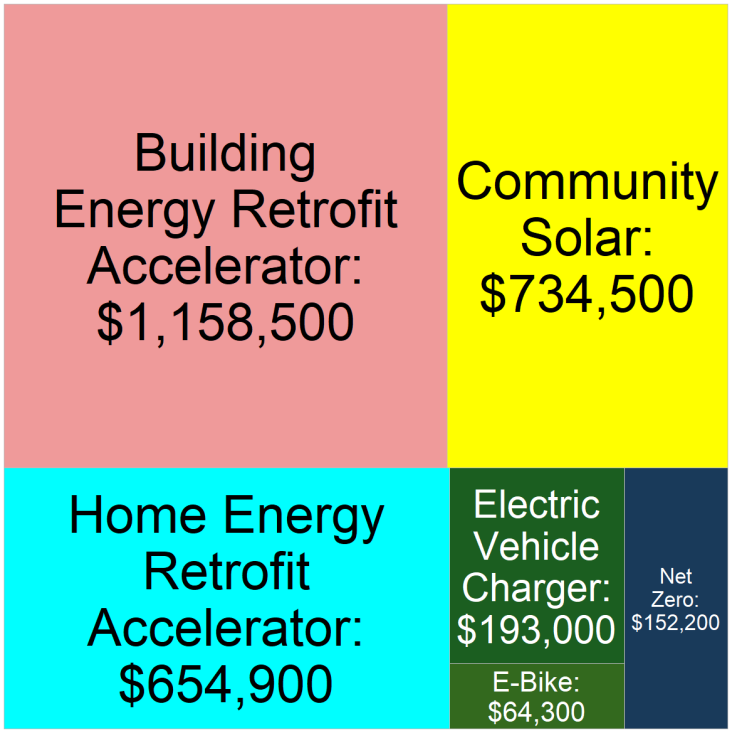
[1] The Market Transformation Approach takes the position that specific efforts are needed by government to encourage investments in energy efficiency, energy conservation and clean energy solutions. It consists of four stages: Education and Outreach, Capacity Building, Incentives, and Regulations and/or Normal Market Forces.

Community Programs

The City Environmental Strategies section has developed, implemented, and is responsible for all five of the community programs being audited that are currently City-funded. These programs offer financial incentives to citizens, homeowners, business owners, and service providers to adopt technology, retrofit, or build in ways that advance the goal of the Community Energy Transition Strategy to reduce greenhouse gas emissions.

Community Programs with Annual Budget

(rebates and administration included)



Commercial Energy Efficiency Rebate (Building Energy Retrofit Accelerator) Program

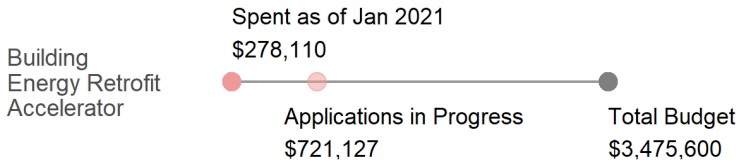
The Commercial Energy Efficiency Rebate Program is more commonly known as the Building Energy Retrofit Accelerator Program. This program was launched in June 2020. It includes a two step process with rebate funds committed and funds spent with a timeline of up to 9 months between application and rebate payment.

By addressing the emissions resulting from the operation of commercial and institutional buildings, this program aims to reduce building energy intensity. The program offers financial rebates on the purchase and installation of select energy-efficient equipment.

Through this program, commercial and institutional buildings can upgrade building lighting and lighting controls, HVAC equipment used for heating and cooling buildings, hot water equipment, building controls, the building envelope and green building certifications.

The total budget for rebates for this program is $3.15 million for the 3-year period from June 2020 to May 2023.

The total budget for administration of the program is $325,600.



Home Energy Retrofit Accelerator

The Home Energy Retrofit Accelerator is a rebate program which provides financial incentives to Edmonton homeowners who invest in improving the energy efficiency of their homes. These actions result in energy savings and help transform the market by making energy efficiency more visible through homeowner participation on Edmonton's Home Energy Map.

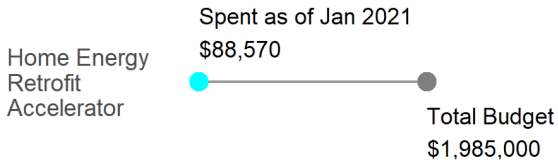
This program was originally launched in 2017and was relaunched in 2021 as a result of changes to provincial programs and service providers.

If a home meets all eligibility criteria, the homeowner may be eligible for rebates for home energy retrofits including:

- EnerGuide Evaluations
- Insulation Upgrades
- Air Sealing Improvements
- Window Upgrades
- Water Heating Upgrades
- Space Heating Upgrades
- Renovating to Net Zero

The total budget for rebates for this program is $1.8 million for the 3-year period from January 2021 to December 2023.

The total budget for administration of this program is $185,000.



Community Solar Program

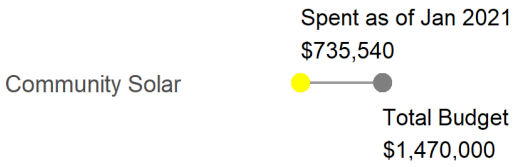
In 2018, the City launched the Community Solar Program. This program includes a financial incentive to install solar energy generation systems for residential buildings and a solar potential map.

The solar potential map component of this program was meant to be an information resource to home and business owners, and drive behaviour change through increased energy literacy.

In recognition of the cost of installing solar systems, the financial incentive component of this program was meant to complement existing financing resources offered by other orders of government.

The total budget for rebates for this program is $1.4 million for the 4-year period from July 2019 to June 2023.

The total budget for administration of this program is $70,000.



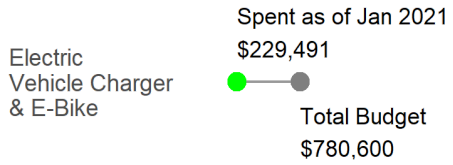
Electric Vehicle Charger and E-Bike Program

The Electric Vehicle Charger and E-Bike Program launched in June 2020. The purpose of the program was to increase electric vehicle and E-bike adoption in Edmonton by providing financial incentives in the form of rebates for electric vehicle charging stations or new E-bikes. By reducing the financial barriers of ownership, the City expected to initiate a shift in consumer behavior and accelerate adoption of this new technology.

In June and November 2020, City Council voted to limit the funding for this program to one year instead of three as initially planned, due to municipal economic constraints and to some opposition from the public towards providing rebates during the COVID-19 pandemic.

The original total budget for rebates for this program was $600,000 for both E-bike rebates and electric vehicle charger rebates over a three year period from June 2020 to May 2023. However, when the length of this program was reduced to one year it resulted in a budget of $200,000. $50,000 of this amount was earmarked for E-bike rebates.

The total budget for administration for this program over the three years was $180,600.



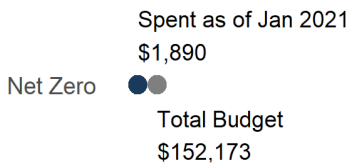
Green Building Grant Program (Net Zero Rebate)

The Green Building Grant Program is more commonly known as the Net Zero Rebate Program. It was a pilot program that evolved through collaboration with the City Environmental Strategies section and the Real Estate and Housing sections in the City.

The purpose of the program was to test the market readiness for an emerging net zero building requirement in the future. Operating between June 24, 2020 and August 30, 2020, a rebate of up to $25,000 was offered to qualified builders in the Meadows of Laurel development.

The total budget for rebates for this program was $150,000.

The total budget for administration costs for this program was $2,173.



Other Environmental Programs

These five community programs are a subset of the City's environmental programs. There are also internal-facing environmental programs that are focused on the environmental performance of City operations - such as the LED Street Light Replacement program.

Additionally, there are external programs in which the City may participate or facilitate, but does not fund or administer - such as the Municipal Climate Change Action Centre (MCCAC) Solar Granting program funded by Alberta Urban Municipalities Association (AUMA). We assessed a sample of performance measures for this report that included some of these other programs, however, a detailed review of these programs was beyond the scope of this audit.

Program Performance

Key Findings

Four of five community programs to support the City's environmental strategies are performing as intended.

There is clear alignment between the programs and the City's approved Energy Transition Strategy.

Program costs and participation are aligned to program budgets and expected participation for three of five programs.

Program outcomes are aligned to the Energy Transition Strategy, and available evidence suggests outcomes are being achieved for three of five programs where measures are available.

Program and Strategy Alignment

Having a clear alignment between the environmental programs and strategies helps to ensure that program outcomes will advance the organization's strategic objectives. If environmental programs are not aligned to a strategy, there is a risk that City resources would not be used effectively.

All five programs were clearly aligned to the Community Energy Transition Strategy. This alignment was explicit in the documentation for each program. Additionally, the Community Energy Transition Strategy identifies and describes conceptual programs that are very similar to the programs that have been implemented. This strongly suggests that the implemented programs were based on the Community Energy Transition Strategy, further supporting their alignment.

Program Budgets and Operation

The community programs are funded through the tax levy. To appropriately steward these funds, it is important that the programs stay within their budget. Additionally, the budget for each program can reflect the anticipated participation in the program by the public. A program that is significantly under or over budget may have design or process issues that impact applications and participation.

Program rebates were awarded in compliance with the respective program guidelines and practices related to processing applications were well controlled.

For the five community programs, program costs were reasonably aligned to their applicable program budgets when the length of time the program has been operating was considered. Program uptake was also reasonably aligned to anticipated demand with some exceptions - the most significant being the demand for E-bike rebates. Of the $200,000 annual budget for rebates for the Electric Vehicle Charger & E-Bikes program, $50,000 was earmarked for E-Bike rebates. The entire amount was allocated within days of program launch.

High E-Bike Rebate Program Demand

The E-Bike Rebate program was launched in June 2020 and was intended to run for three years. Its purpose was to encourage E-bike adoption in Edmonton in alignment with the Community Energy Transition Strategy goal to reduce greenhouse gas emissions from transportation.

In recognition of the City's financial challenges with COVID-19, City Council cancelled this program after one year. However, this program had effectively ended within a week of launch when the first year's allocated funds were fully disbursed.

This program was capped at a budget of $50,000 to disburse as rebates to successful applicants in the first year. Within the first 5 days of launch, the City received 701 applications.


85 applicants received a rebate.


The remaining 616 applicants did not receive a rebate due to lack of funds, criteria not met, incomplete applications, or withdrawal of their application.

In contrast with the other community programs, the requirements to apply for and receive an E-bike rebate were simple and not as time-consuming. This was identified by the business area as a key reason for the high demand.

Program Outcomes

The documentation for each program showed clear alignment between the programs and the Community Energy Transition Strategy. The primary outcome for each of the programs is a reduction in greenhouse gases and this is the key goal of the Community Energy Transition Strategy.

Three of the five programs had direct or indirect performance measures that suggest the programs are achieving their greenhouse gas reduction outcomes. However, there were some issues with the measures that limited our ability to definitively conclude.

Program Outcome Measure Assessment Results & Limitations

Building Energy Retrofit Accelerator
No direct greenhouse gas reduction outcome measure was identified for this program.

Home Energy Retrofit Accelerator
Prior year measures show targets were reached. Current year measure has no updated target identified.

Community Solar
The outcome measure could not be recalculated accurately. However based on the poorest recalculation results, this program is still meeting its outcome target.

Electric Vehicle Charger and E-Bikes
This program does not have a direct greenhouse gas reduction measure being calculated and tracked. However, there was a direct measure identified in the program development documents. Based on the number of rebates provided, the outcomes are likely being achieved on a prorated basis given the program length was reduced to one year.

Net Zero
Pilot program was cancelled with no participants. No outcome measures were provided.

Achieving Outcomes: The Home Energy Retrofit Accelerator Program

The key outcome of the Home Energy Retrofit Accelerator Program is to help reduce greenhouse gas emissions. A performance measure that models greenhouse gas reduction from all completed upgrades relative to the associated annual targets had been developed for this program.

The program was revised and relaunched in 2021; however revised targets for this measure were not provided to align to the revisions. Without targets, it is difficult to determine if the program is achieving its intended outcome.

Establishing direct measures when possible, targets, and having a calculation approach that ensures accuracy would provide greater assurance that these programs are achieving their intended outcomes.

See Recommendation 1

Program Funding

Key Findings

Program funding is secure and adequate.

Program funding is sourced from the tax levy. As such, changes to Council priorities is the key risk to funding security for environmental programs.

Funding budgeted for individual programs is adequate to satisfy program demand with the exception of the cancelled E-Bike rebate program.

Security of Funding

Funding for environmental initiatives can come from many sources including philanthropic organizations, special interest groups, and other orders of government. Although there are programs, in which the City has a key role, that are funded through these types of sources, the five community programs examined in this audit are all fully funded by the City from tax levy revenue.

Tax levy revenue is within the control of City Council which makes it secure in contrast with third-party funding sources. As a result, the key risk to the funding for these community programs is a shift in City Council priorities resulting in the reduction or removal of program budgets. This could result in significant changes or cancellation of programs.

Four of the five community programs have contracted the administration of their program to vendors outside of the City. The funds available to provide rebates or awards are held in trust by the service provider. By limiting this fund provision to a yearly amount for multi-year programs, the City has limited the risk of committing funds that may not be available if the program is defunded in future years.

None of the programs had committed to funding applications where adequate program funding was not currently available.

Adequacy of Program Funding

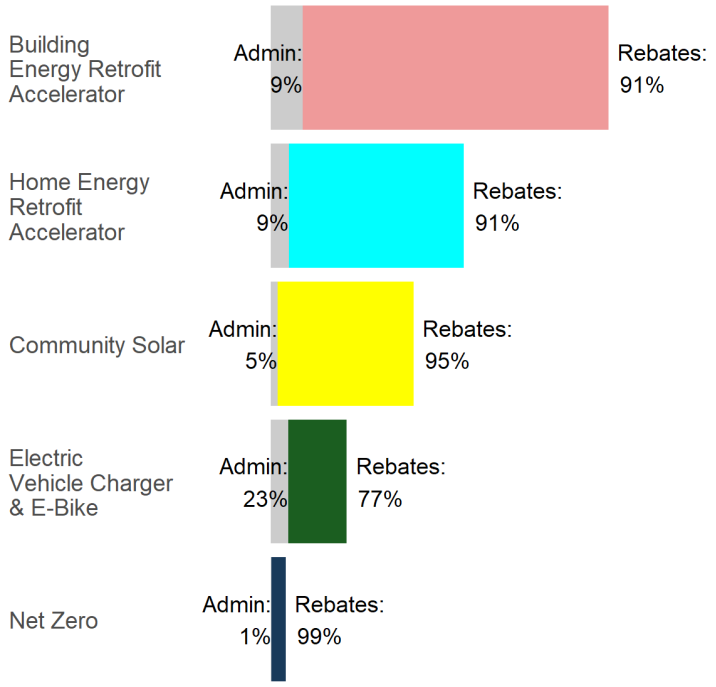
The community programs examined in this audit all provide rebates or monetary incentives to applicants engaged in implementing products, services, or technology that advances the City's goal of greenhouse gas emission reduction. If adequate funding for applicants is not available, the program is at risk of not achieving its goals.

The City Environmental Strategies section indicated that they chose and designed these programs to get the most value for the money available. None of the five programs examined has exceeded its annual budget when providing rebates or awards to applicants, and the funding budgeted for rebates and awards to applicants was generally consistent with program demand - E-bike rebates being the primary exception.

Program Administration Costs

The adequacy of administration funding can also be a risk for programs. When administration funding is inadequate it can result in poor response times.

The percentage of administration costs for the three largest programs is under 10% of the total program budget. The administration costs for the Electric Vehicle Charger & E-Bike program is higher. This is not unexpected as the total program budget is lower and consists of two programs rather than one.

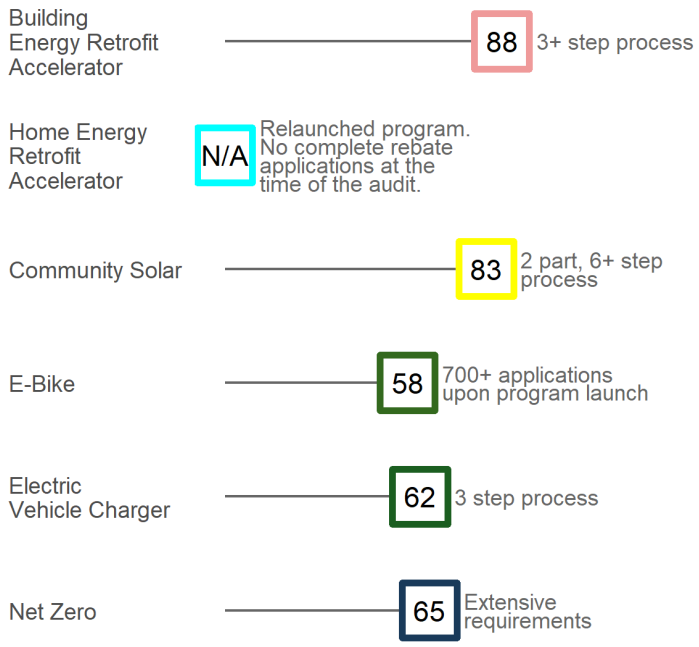


Application Turn-Around Times

For the five programs examined in this audit, the response and turn-around times for applications were reasonable when accounting for the complexity of the program requirements.

Program Rebate Completion Times in Workdays

(with rationale for time length)



Turn-Around Time for the Building Energy Retrofit Accelerator Program

Since its launch in June 2020, the average number of workdays from when an application is submitted to a rebate being provided for qualified applicants in the Building Energy Retrofit Accelerator Program is 88 work days.

While this may seem like an excessive length of time, this is a multi-step process. The business needs time to hire a contractor, purchase the required materials, install the materials, and then submit documentation to show what was installed.

Environmental Performance Measures

Key Findings

The performance measures managed by the City Environmental Strategies section may not accurately reflect the performance of the programs. Although programs have measures identified to assess program performance, issues when recalculating the results raises concerns about the accuracy and reliability of the performance measure results.

Managing Performance Measurement

The City Environmental Strategies section has developed a spreadsheet identifying a comprehensive list of performance measures, methodologies, and results over time. There is clearly established accountability for the collection and consolidation of performance measure information and results.

Measuring the Right Things

Although there is an opportunity to improve program outcome measures as previously discussed, four of five programs have additional output or performance measures identified that are aligned to the programs.

	Building Energy Retrofit Accelerator Has operational measures identified. Does not have a direct outcome measure identified.
	Home Energy Retrofit Accelerator Measures are well-aligned.
	Community Solar Measures are well-aligned.
	Electric Vehicle Charger and E-Bikes Has operational measures identified. No direct outcome measure identified. Program cancelled as of June 2021.
	Net Zero No measures identified. Pilot program cancelled.

Accuracy of Measures

To be effective, performance measures need to accurately reflect the performance of the program. At minimum, this requires:

- ✓ Good quality raw data
- ✓ A consistent and accurate methodology for calculation
- ✓ Have a target level of performance

We reviewed a sample of twelve performance measures managed by the City Environmental Strategies section. This sample included measures from four of the five programs as well as measures from other programs and corporate measures as indicated in the audit scope.

Two of the twelve measures could be recalculated with no significant issues identified.

Performance Measures that were Recalculated with no Issues

Total # of EnerGuide D labels No issues
Modeled greenhouse gas reduction from residential energy efficiency programs No issues

Three of the twelve measures could be recalculated, but had opportunities to improve data capture and control, and disclosure of information when reporting.

Performance Measures that were Recalculated with Optimization Opportunities

Total number of buildings participating in the Building Energy Benchmark Program
Data is collected on a shared spreadsheet with edit access for both the 3rd party program administrator and select City employees. This may be an accountability risk if someone inappropriately changes data.

This measure requires the use of data from 2 years prior that should be disclosed when reporting.

Change in Energy Use Intensity for the participants in the Building Energy Benchmark Program
Data is collected on a shared spreadsheet with edit access for both the 3rd party program administrator and select City employees. This may be an accountability risk if someone inappropriately changes data.

This measure requires the use of data from 2 years prior that should be disclosed when reporting.

Number of electric vehicle charging stations installed with the Electric Vehicle Charging and E-Bike program
Key process activity dates are captured inconsistently and in a format that does not support easy analysis.

We were unable to recalculate the results for the remaining seven measures. Issues included inaccessible raw data to recalculate previously reported measures, a mismatch between results tracked or reported in different places, calculation errors, and a data source that is dynamic where historical results could not be recreated.

Performance Measures That Could Not Be Recalculated

Participation in the Corporate Climate Leaders Program
The data was missing a date field so did not allow reconciliation of participants across years and cohorts.

Reported greenhouse gas reductions from members of the Corporate Climate Leaders Program
Recalculation produced different results than previously reported.

Applications received for the Building Energy Retrofit Accelerator Program
Recalculation produced different results than identified by the business area.

Modelled catalyzed greenhouse gas reduction for residential solar programs
Recalculation produced different results than previously reported.

Greenhouse gas reduced from the corporate inventory due to Renewable Energy Certificate purchase
Recalculation produced different results than previously reported. This is a complex calculation with inputs that are not intuitive.
Disclose methodology when reporting.

Visits to the Change for Climate blog and related webpages
Data is sourced from a dynamic website and can't be recreated. Results cannot be recalculated.*

Number of publicly accessible charging stations
Data is sourced from a dynamic website and can't be recreated. Results can not be recalculated.*
Measure calculation method did not match the documented calculation methodology.

** It is not uncommon to be missing historical data when the data source is dynamic - such as data from active websites. The cost/benefits of potentially retaining historical data in these situations should be assessed.*

As issues and opportunities were identified, the City Environmental Strategies section implemented changes or identified solutions for issues with these measures.

The results from our assessment of the 12 performance measures indicates there is a need to undertake a review of the larger set of performance measures and ensure that there are appropriate controls, procedures, and documentation in place.

Recommendation 1

Improve performance measurement

Recommendation

Review and revise performance measures to:

a. Ensure all programs have performance measures and targets to assess how well they are achieving their intended outcomes.

b. Improve transparency by disclosing information that may not be obvious from the measures themselves (i.e., reporting lags in the data).

c. Improve the data storage of the source data so it is clear what data was used to calculate the measures.

d. Improve the accountability for the data if an outside source can change the raw data without the City being aware.

e. Ensure the documented methodology for each measure accurately reflects how the measure is calculated for reporting.

Responsible Party

Branch Manager, Planning and Environment Services

Accepted by Management

Management Response

The team worked closely with the Auditors and appreciate their diligence, findings and suggestions to address the shortcomings.

a. Ensure all programs have performance measures and targets to assess how well they are achieving

their intended outcomes.

- Agreed, performance measures for all programs will be reevaluated for applicability, complexity and appropriateness for tracking the outcomes of each program. Where performance measures are absent we will ensure that measures are defined and methodologies documented to consistently track achievement of the Energy Transition Strategy and achievement of the goals therein.

b. Improve transparency by disclosing information that may not be obvious from the measures themselves (i.e., reporting lags in the data).

- Agreed, methodologies for consistent calculation of the performance measures will be defined and documented, and include 1) reporting / data collection timing, 2) key dates for consistent data aggregation 3) defined roles and responsibilities of all parties involved with data handling, 4) data storage and retention procedures, 5) data handling controls / permissions for stored data, and 6) all necessary references to other technical factors.This effort is already underway.

c. Improve the data storage of the source data so it is clear what data was used to calculate the measures.

- Agreed, ready access to raw data and assumptions for data adjustment will benefit all users of this data. Raw and final data analysis will be captured and stored as part of the methodological documentation. This effort is already underway.

d. Improve the accountability for the data if an outside source can change the raw data without the City being aware.

- Agreed, defined roles and responsibilities of all parties involved with data handling and management will be defined as part of the methodological documentation for each performance metric. This effort is already underway.

e. Ensure the documented methodology for each measure accurately reflects how the measure is calculated for reporting.

- Agreed. Methodological gaps that were identified will be addressed with the objective to ensure detailed and accessible documentation for each

of the metrics is in place.

Implementation Date

June 30, 2021

Alignment and Implementation

Key Findings

The City's environmental strategies and programs are positioned to be effective.

Programs are designed to align to the expectations and practices of industry, communities, and other orders of government.

Although the method of implementing city-wide strategies within the organization has not been optimal, there is an ongoing shift in the City towards a top-down business planning process. This will increase the effectiveness of implementing these strategies by ensuring a more structured, corporate approach is in place.

Community and Industry Alignment

There is strong alignment between the programs and the expectations and practices of the community and industry.

Community programs are less effective when they do not align to the expectations and practices of the community. This lack of alignment can appear as a lack of participation in offered programs or as poor satisfaction with the programs. Engagement with potential participants and stakeholders during program design can help ensure the program being offered meets the expectations of the community and related industries.

Participation in the programs has been as anticipated. With the exception of a limited-scope pilot program (Net Zero), there were no programs that were significantly undersubscribed. Under subscription would indicate misalignment with the expectations of intended participants.

Additionally, participation program satisfaction was strong for the programs where this has been measured. Poor satisfaction would have been an indicator of misalignment. Not all programs had a satisfaction measure due to the newness or timing of the program offering.

There was also a clear process for program design that engaged stakeholders and integrated their feedback. There was evidence of comments provided by vendors, potential participants, and community groups that resulted in changes to program design and eligibility.

The City has established the Energy Transition Climate Resilience Committee as an advisory committee to City Council. As a diverse group of professionals, this committee has the ability to be a significant resource to help ensure alignment of environmental programs and activities to community and industry expectations. Approximately 80 percent of the Energy Transition Climate Resilience Committee indicated that they are effective in their role as an advisory committee and are confident that their advice has an impact on City Council's decisions.

Net Zero Rebate Program Alignment

The Net Zero Rebate Program (Green Building Grant) was a pilot project to test the market readiness for a net zero requirement that may emerge in the future. The program offered a rebate of $25,000 to builders in the Meadows of Laurel who reached Net Zero certification.

One lot purchaser submitted an application to the program. Subsequently, the applicant identified that their lot, and all others in the Phase II of Meadows of Laurel were serviced to 100 amp only - the current requirement that the City of Edmonton imposes on EPCOR. An estimate provided by EPCOR to increase the service to the necessary 200 amp was $32,000. The application was withdrawn and the program has not expended any of its budgeted funds beyond the initial development and administration resources.

The process that the City Environmental Services section undertook to develop the other community programs included a comprehensive jurisdictional review and stakeholder engagement. This process helps to ensure that the programs are aligned to the expectations of the community and industry stakeholders - such as vendors, installers, builders, and utility providers.

The results of this pilot underscores the value of this existing review and consultation process for community program development. As a small, pilot initiative, this program did not

undergo a jurisdictional scan or comprehensive engagement process that may have identified the servicing issue.

The results of this pilot provided multiple business areas in the City with valuable insight related to the potential for net zero homes in Edmonton.

Alignment with Other Orders of Government

There is a consistent expectation in the City's strategic documents that the City will partner and collaborate with other stakeholders, including other orders of government, to achieve Edmonton's energy transition goals.

The predominant approach taken in City community program development has been to 'stack' incentives from the City onto other benefit programs offered by the provincial and federal governments. This approach provides the greatest benefit to applicants.

In documentation related to community program development, jurisdictional scans are conducted for each program. This strongly suggests that the City Environmental Strategies section has implemented a systematic approach to program alignment with existing provincial and federal programs.

Additionally, employees in the section maintain awareness of new or changing provincial and federal programs in order to adapt and revise City programs.

Adapt and Relaunch of the Community Solar Program

In 2017, Energy Efficient Alberta offered a rebate of $0.75 / watt for the installation of solar panels. In 2018, the City of Edmonton contracted Energy Efficient Alberta to administer the City's Community Solar Program that added an additional $0.15 / watt rebate. When Energy Efficiency Alberta was dissolved by the provincial government in 2019, the Community Solar Program was relaunched with a new service provider.

The rebate was increased to account for the loss of a stacked benefit with the provincial government. After the provincial rebate was cancelled, the City increased its offered rebate to $0.40 / watt.

Internal Governance and Implementation

The City of Edmonton has established visionary and ambitious goals related to greenhouse gas emission reductions, climate change, and sustainability. Implementing the governance, structures, programs, and activities to achieve these goals will require coordination of all City departments as well as external stakeholders.

The original Community Energy Transition Strategy was approved by City Council in 2015. At this time, the City of Edmonton was using a bottom-up approach to business planning. This approach can make it difficult to plan and implement strategies and programs that need to be integrated across departments and branches.

The City has been shifting away from this bottom-up business planning approach. With the approval of ConnectEdmonton and the City Plan, there are now guiding documents that can drive and influence business planning from a corporate perspective. Strategies with corporate goals that require collaboration across the organization structure can be more effectively integrated into a top-down planning process with appropriate governance, budgeting, and work plans to help support success using a structured, organized approach.

Conclusion

As the City of Edmonton moves forward with ambitious plans and targets to address climate change, it is important to ensure that strategies and programs can be effectively implemented and managed.

The results of this audit indicate that the community programs to support the City's environmental strategies are performing as intended, and available evidence suggests outcomes are being achieved.

Program funding is secure and adequate to satisfy program demand.

Program performance measures may not accurately reflect the performance of the programs. Although the City's Environmental Strategies section is generally measuring the right things to assess program performance, issues when recalculating the results raises concerns about the accuracy and reliability of the performance measure results.

The City's environmental strategies and programs are positioned to be effective and ongoing changes to business planning approaches are improving the ability of the organization to implement complex, organization-wide strategies.

This audit includes one recommendation to improve performance measurement.

The audit team would like to thank the staff in the City Environmental Strategies section and staff in other business areas of the City for sharing their knowledge with us throughout the audit. It was greatly appreciated.