



**City of Saint John**  
Community Energy Action Plan

November 2023

# ActSJ

**Pathway to Net-Zero**  
Climate Action Plan Summary

## Land Acknowledgement

The City of Saint John/Menaquesk is situated in the traditional territory of the Wolastoqiyik/Maliseet. The Wolastoqiyik/Maliseet, along with their Indigenous neighbours, the Mi'kmaq/Mi'kmaw and Passamaquoddy/Peskotomuhkati signed Peace and Friendship Treaties with the British Crown in the 1700s that protected their rights to lands and resources.

## Acknowledgements

**ActSJ: Pathway to Net Zero** is Saint John's response to the climate crisis and its commitment to transition to a net-zero emissions city by 2050.

The Plan was developed with the following participants:

- City Council and administration, which recognized that Saint John needs a clear path to achieve the necessary emission reductions and that this path will need to articulate clear funding, planning, and resourcing requirements.
- Saint John Energy, which partnered with the City on the development of ActSJ and will play a critical role in implementation.
- Province of New Brunswick Environmental Trust Fund, which partially funded this project.
- City administration led the development of ActSJ, supported by Sustainability Solutions Group.
- City staff provided and interpreted data, coordinated on-site engagement activities, and reviewed recommendations to ensure best fit with the local context.
- Members of the Community Working Group, who generously shared their expertise and time to provide input and offer contextual guidance.
- Saint John residents and businesses, who took part in the public engagement activities and provided feedback to create the best possible plan for the community.

Without these efforts, this Plan could not have been developed. Thank you.

## Message From the Mayor

We come together to work on a matter of great significance—the Community Energy Action Plan. This plan represents a collective effort that transcends boundaries, encompassing both our dedicated staff and our valued stakeholders. It is a testament to our determination to face the challenges of energy consumption and environmental impacts head-on.

Our city has always been defined by its resilience and strong sense of community. The Community Energy Action Plan embodies these qualities and signifies our determination to innovate, adapt, and thrive. It is a roadmap that will lead us towards a brighter and greener City of Saint John.

To our esteemed staff and stakeholders, I want to express my deep appreciation for your tireless work in developing and implementing this plan. Your expertise and devotion are the driving forces behind our progress, and I am profoundly grateful for your commitment.

To our citizens, I want to emphasize the crucial role you play in this endeavor. Your input, ideas, and engagement are invaluable as we work towards our goal. This plan is not just a vision; it is a promise to you, our children, and our future generations.

We are all in this together. By working hand in hand, we can create meaningful change and set an example for others to follow. Our collective efforts will make our city a shining example of sustainable environmental living and a beacon of hope for a better, greener world.

Your sincerity, proficiency, and enthusiasm are the cornerstones of our success. Thank you to everyone involved, for your commitment to our city and its future. Let us embark on this important journey with our best foot forward as we work together for a greener tomorrow.



With deepest appreciation,

A handwritten signature in black ink, which appears to read "D. Noade Reardon". The signature is fluid and cursive.

Mayor Donna Noade Reardon

# ActSJ is Saint John's Response to the Climate Crisis.

**ActSJ: Pathway to Net Zero** is Saint John's strategy for achieving net-zero emissions by 2050.

Communities worldwide must take immediate action to minimize the most catastrophic impacts of the climate crisis. ActSJ details how Saint John will act while creating jobs, growing sustainable local industries, and improving quality of life.

This strategy was developed through public meetings and a public survey and with technical analysis and input from city staff, experts, a community working group and community members who participated in public meetings and a public survey. For more details on the technical analysis and engagement process, please see the full report.



# Saint John's Emissions

In **2021**, the Saint John community consumed 83 million gigajoules of energy to:

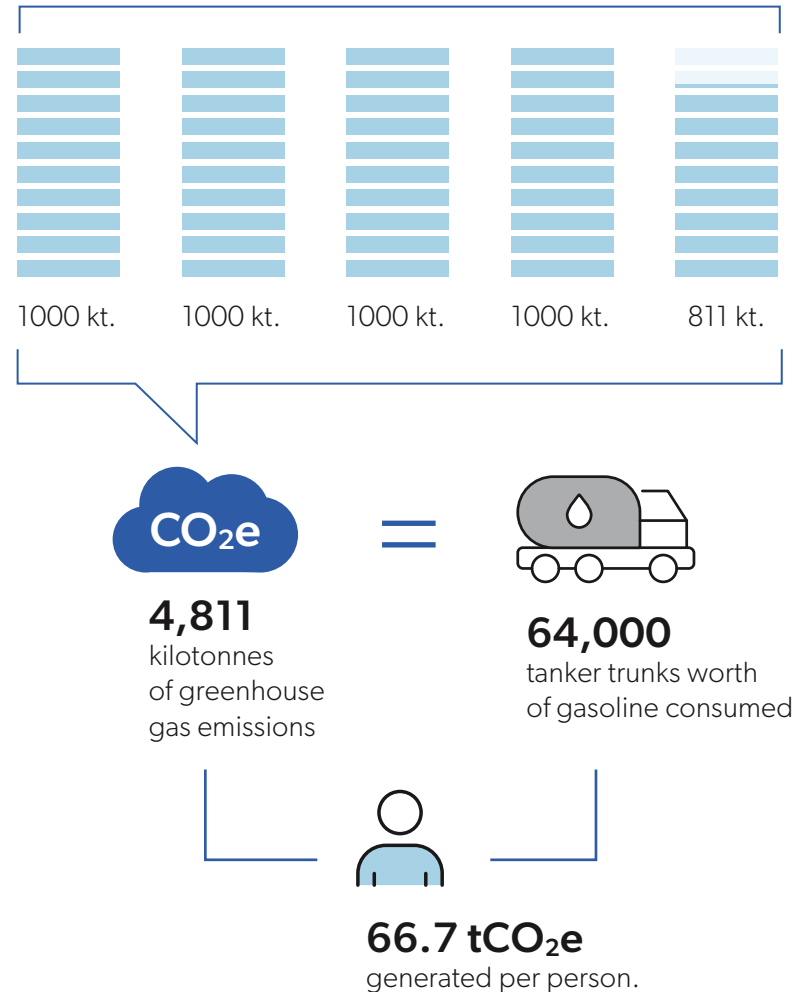
- Heat and cool space;
- Run appliances and equipment;
- Fuel vehicles;
- Operate machinery inside all types of building—from homes to schools to office towers and industrial facilities;
- Provide municipal services like water and waste and move people and goods around; and
- Power industry.

These processes, as well as emissions from waste, created **4,811 kilotonnes of greenhouse gas (GHG) emissions**—equivalent to consuming about **64,000 tanker trucks worth of gasoline**.

Based on Saint John's 2021 population, this translates to **66.7 tCO<sub>2</sub>e generated per person**. This is high compared to Canada's average GHG emissions per capita (17.7 tCO<sub>2</sub>e in 2020); however, it is comparable to other fossil-fuel-producing communities.<sup>1</sup>

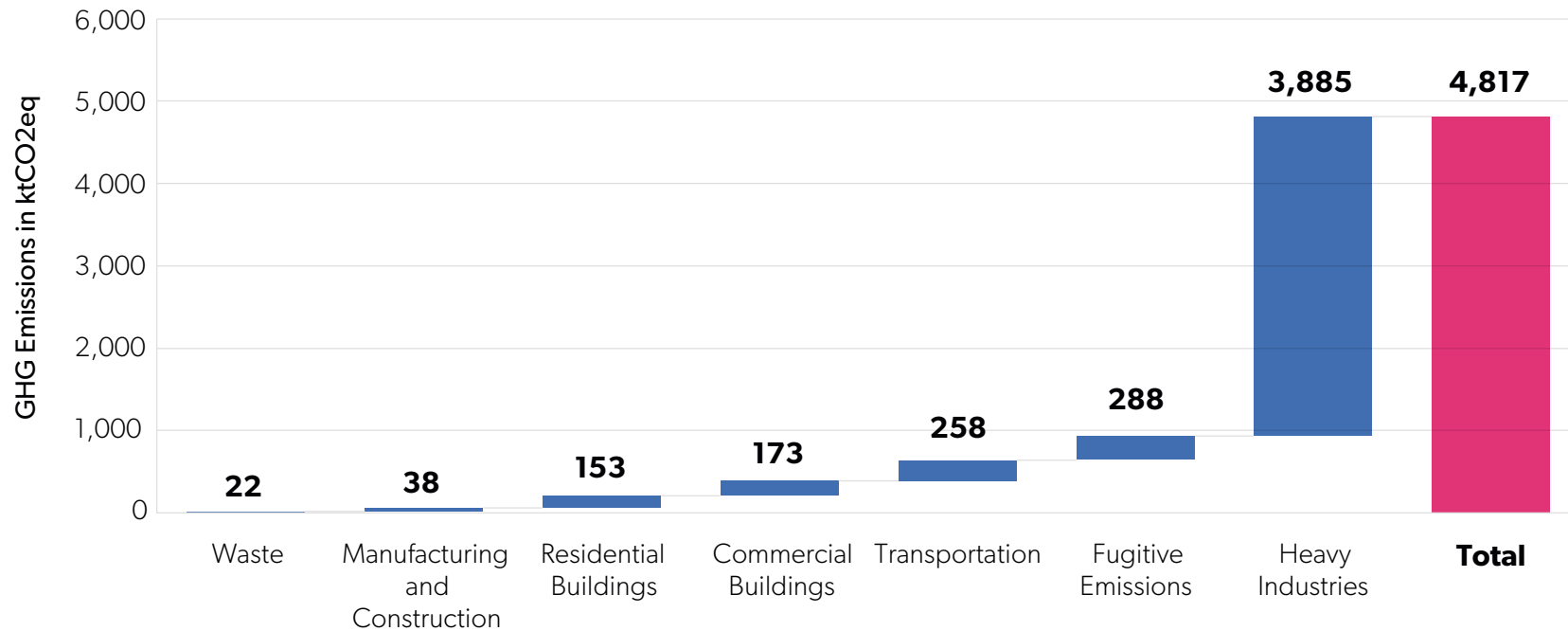
<sup>1</sup> Many fossil-fuel-producing communities in Canada have much higher per capita emissions than the national average. For example: Athabasca County, AB, at 73.4 tCO<sub>2</sub>e/capita; Medicine Hat, AB, at 62.8 tCO<sub>2</sub>e/capita; and Sarnia, ON, at 60.7 tCO<sub>2</sub>e/capita. Per capita emissions data is from the Municipal Energy and Emissions Database, available at meed.info.

Kilotonnes (kt) of greenhouse gas (GHG) emissions



**Figure 1** Diagram illustrating Saint John's GHG emissions in 2021.

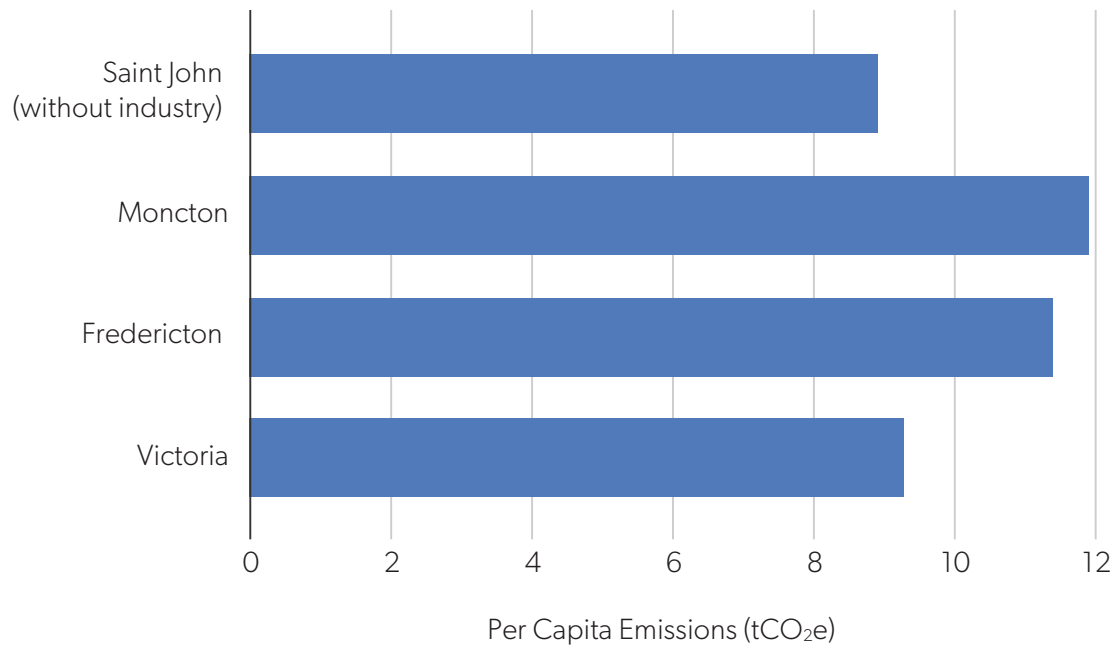
The bulk of these emissions are from heavy industry. Buildings and transportation are the second- and third-largest sources of emissions, respectively. Composting waste, manufacturing and construction, and fugitive emissions<sup>2</sup> account for the remaining emissions.



**Figure 2** Saint John's GHG emissions by sector in 2021.

<sup>2</sup> Fugitive emissions are greenhouse gas emissions leaked into the atmosphere accidentally or intentionally, usually during the production, processing, handling, and distribution of fossil fuels.

The scale of industrial emissions may make it tempting to discount the remaining community emissions. However, Saint John's per capita emissions without heavy industries (8.9 tCO<sub>2</sub>e) are comparable to other small Canadian cities, such as Moncton (11.871 tCO<sub>2</sub>e), Fredericton (11.352 tCO<sub>2</sub>e), and Victoria (9.256 tCO<sub>2</sub>e), that are working to reduce community emissions to net zero.<sup>3</sup> Cutting these emissions is important to limit the catastrophic impacts of the climate crisis and enable Canada to achieve its goal of net zero by 2050. These emissions are from everyday energy use, like running vehicles and warming buildings. Everyone in Saint John contributes to them and can play a role in helping the community reach net zero.

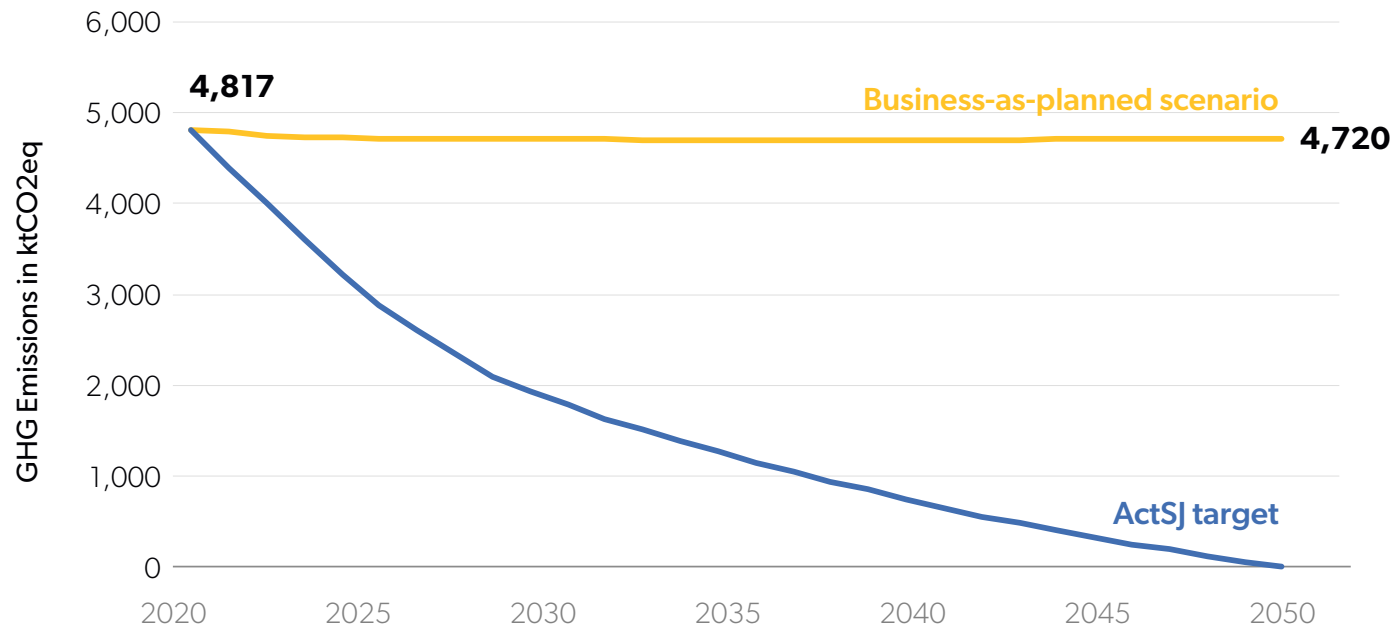


**Figure 3** Saint John's per capita emissions without industry relative to per capita emissions in other small Canadian cities.

<sup>3</sup> Per capita emissions data is from the Municipal Energy and Emissions Database, available at meed.info.

# The Challenge

**Saint John needs to reduce emissions in all sectors** to achieve net-zero greenhouse gas emissions by 2050. Industry must decarbonize. At the same time, everyone in Saint John can take steps to reduce emissions related to transportation, buildings, and waste. The challenge is daunting, but it is not impossible.



**Figure 4** The size of the challenge. The business-as-planned scenario is a projection of emissions out to 2050, based on current demographic, market, and technological trends and approved policies, regulations, plans, and programs. The ActSJ target illustrates the steep decline in emissions required to reach net-zero emissions by 2050.



Saint John must overcome three key challenges to achieve net-zero emissions. Each of these challenges is also an opportunity to improve life in Saint John.

## Challenge 1: Emissions From Industry

A small group of heavy industrial facilities are responsible for 81% of Saint John's emissions. Decarbonizing these industries is an opportunity to bring in investments and local jobs while shifting away from fossil fuels. The City will support and encourage this transition, but heavy industries are regulated at the federal level, and ultimately, the industrial sector is responsible for reducing emissions.

## Challenge 2: Reliance on Fossil Fuels

Fossil fuels are the main source of energy in Saint John—at a huge cost to the community. Gas and fuel oil prices are higher in New Brunswick compared to the national average.<sup>4</sup> Saint John must replace fossil fuels with renewable electricity to eliminate greenhouse gas emissions, while making the community less vulnerable to volatile oil prices.

## Challenge 3: Local Inequities

Almost one-fourth of households (22%) in Saint John fall below the poverty line—8% more than in Canada in general (14%) and 5% more than in New Brunswick as a whole.<sup>5</sup> Additionally, Saint John's population is aging, and the city has a high number of renters. Saint John must address each of these issues to ensure everyone can participate in and benefit from decarbonization.

<sup>4</sup> Statistics Canada. "Table 18-10-0001-01 Monthly average retail prices for gasoline and fuel oil, by geography." Accessed September 27, 2023. <https://doi.org/10.25318/1810000101-eng>

<sup>5</sup> University of New Brunswick. "Poverty 101: Looking for Answers." Accessed June 30, 2023. [https://www.unb.ca/saintjohn/\\_assets/documents/promise/poverty101.pdf](https://www.unb.ca/saintjohn/_assets/documents/promise/poverty101.pdf)

### Equity Lens

An equity lens is a tool to assess how different groups in the community could be affected by a greenhouse gas reduction initiative so that steps can be taken to increase positive impacts and avoid negative ones.

The City can incorporate an equity lens into its decision-making processes to ensure intergenerational equity, income inequality, housing affordability, and climate resilience are considered during the development of ActSJ initiatives.



# The Big Moves

ActSJ is centred around six main action areas called “Big Moves.” The Big Moves will create jobs and improve quality of life in Saint John. ActSJ will be updated every three to five years as circumstances change and technologies improve.





## Big Move 1: Decarbonizing Industry

Cutting industry emissions depends on the industry type and its processes. Industries relying on petroleum and natural gas can transition to alternative, bio-based feedstocks from urban waste, livestock manure, and crop residue. Industries that rely on fossil fuels to generate high temperatures can switch to low-carbon fuels like electricity and green hydrogen. The City must collaborate with local industries and other levels of government to deploy decarbonization technologies and avoid stranded investments.

### Stranded Investments

Industrial production facilities have long lifetimes. If facility upgrades and new facilities are not designed as close to net-zero standards as possible, high emissions will be locked in for decades. Alternatively, these facilities may become stranded investments if they can no longer be used in a low-carbon future.

## Action Plan

ActSJ Goals	Metrics
<ul style="list-style-type: none"> <li>Improve industrial efficiency by 50% overall by 2040 with more efficient processes and equipment.</li> </ul>	<ul style="list-style-type: none"> <li># of industrial facilities retrofitted</li> </ul>
<ul style="list-style-type: none"> <li>Heavy industries meet their goal to reduce emissions by 30% by 2030 and reach net-zero by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>Electricity and gas consumption</li> <li>GHG emissions from heavy industry</li> </ul>

### Strategy 1: Improve Industrial Efficiency

- The City will advocate for funding and other forms of support from other levels of government for decarbonizing Saint John's industries.
- The City will create working groups to coordinate industry efforts on decarbonization.
- The City will support utilities and industry in detecting and reducing leaks in the natural gas distribution network.
- The City will support industry in developing opportunities for transforming waste heat into heating and electricity and channelling it through district energy systems.

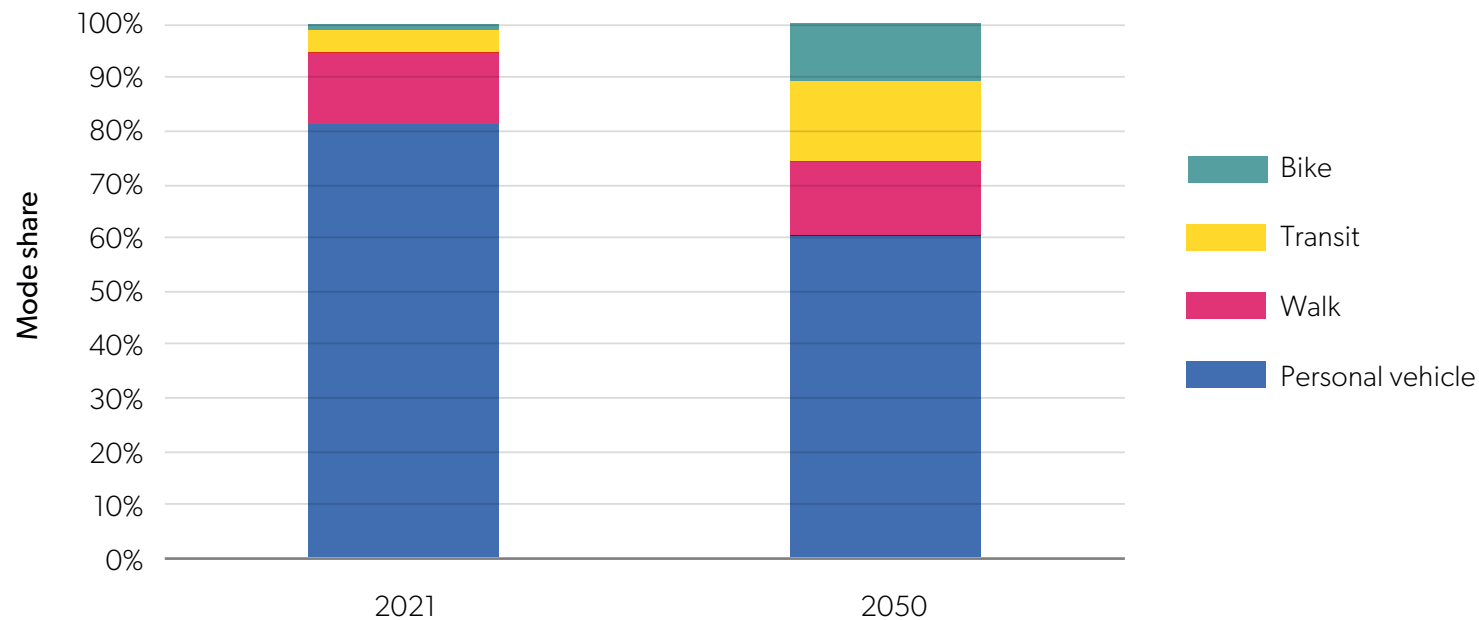
### Strategy 2: Decarbonize Heavy Industry

- The City will convene an Industry Decarbonization Working Group including city staff, representatives from major industries, and community members to support industry decarbonization in alignment with ActSJ.
- The City will work on an equitable transition plan to retrain workers for new opportunities in the green economy.



## Big Move 2: Increasing Active and Public Transportation

Transportation is the third-largest emission source in Saint John. The city has extensive urban sprawl with thousands commuting into the city for work. ActSJ envisions that by 2050, 35% of trips will be taken by foot, bicycle, or transit. Saint John is already taking action to improve and expand walking, cycling, and public transportation infrastructure through existing plans, such as PlanSJ, MoveSJ, and the Public Transit and Fleet Low-Carbon Mitigation Strategy. The City must expand these initiatives and create additional programs to achieve net zero.



**Figure 5** Mode share of trips taken within Saint John under full implementation of the ActSJ decarbonization pathway, 2021 and 2050.

## Action Plan

ActSJ Goals	Metrics
<ul style="list-style-type: none"> <li>Invest in active transportation infrastructure to increase the share of active trips to 20% of all trips by 2040.</li> </ul>	<ul style="list-style-type: none"> <li>% of trips taken by walking or cycling</li> </ul>
<ul style="list-style-type: none"> <li>Expand on-demand transit program to increase ridership to 15% by 2050.</li> </ul>	<ul style="list-style-type: none"> <li>% of trips taken by transit</li> </ul>
<ul style="list-style-type: none"> <li>Reduce personal vehicle ownership by 5% by 2030.</li> </ul>	<ul style="list-style-type: none"> <li># of vehicles registered in Saint John</li> </ul>

### Strategy 1: Increase Trips Taken by Foot and Cycle (Active Transportation)

- The City will update the Municipal Development Plan and MoveSJ, Saint John’s active transportation plan, to align with ActSJ’s targets.
- The City will develop a biking strategy to achieve ActSJ’s targets by addressing issues related to biking infrastructure, accessibility, access to bike ownership, and maintenance.
- The City will implement a Safe Routes to School Program to make it easier for children to walk and bike to school.
- The City will work with Saint John Energy to design and develop mobility hubs with transit stops or transfer stations, electric vehicle (EV) charging, e-bike and e-scooter rentals and charging, a car-share pick-up and drop-off location, and a carpooling lot.
- The City will develop an e-bike subsidy program.
- The City will support the development of a local bikeshare program.

### Strategy 2: Expand Public Transit Services

- The City will expand transit services to provide more on-demand, door-to-door options.
- The City will introduce multi-use transit passes for frequent riders.
- The City will advocate for regional, intercity transit services to nearby cities like Moncton and Fredericton.

### Strategy 3: Reduce Personal Vehicle Ownership

- The City will accelerate plans (Plan SJ, Central Peninsula Plan) to intensify development of vacant or unused lots in existing neighbourhoods.
- The City will update the Municipal Development Plan and zoning bylaws to centre around the 15-minute city concept.

#### 15-Minute Cities

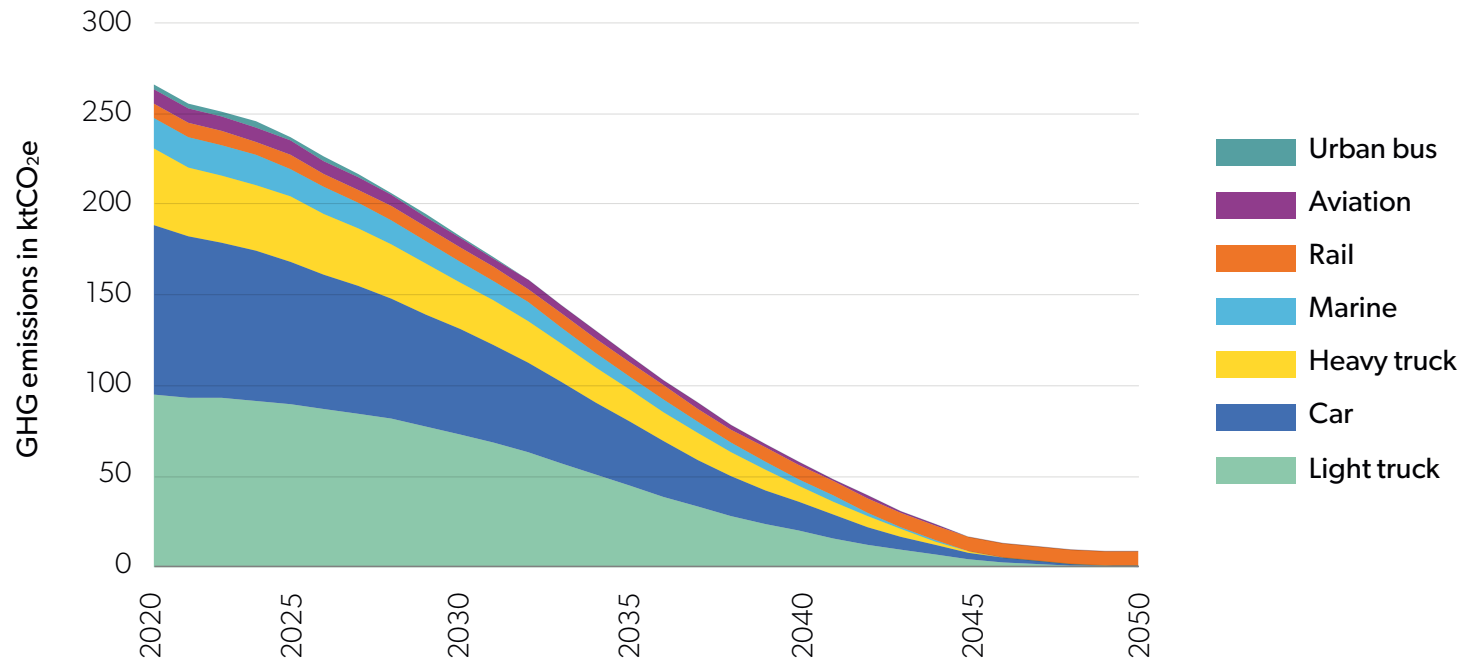
Saint John’s 10-Year Strategic Plan recommends updating PlanSJ to integrate the 15-minute city concept. A 15-minute city is made of neighbourhoods in which basic daily necessities and services, such as work, school, shopping, and healthcare, are within a 15-minute walk or bike ride.

- The City will increase car parking fees to disincentivize driving in core urban areas.
- The City will partner with a car-sharing company to launch a car-sharing service in Saint John.



## Big Move 3: Shifting to Low-Emission Vehicles and Transport Fuels

Vehicle electrification is accelerating as EV prices drop and more models suited for northern climates and various commercial and private needs become available. The City can accelerate EV uptake through interventions like informing the public about EVs and creating a taskforce to help businesses electrify their fleets. As a major logistics hub, Saint John can also help reduce emissions in the marine and aviation sectors by supporting the deployment of low-emission fuels and providing renewable shore power for ships when in dock.



**Figure 6** GHG emissions from transportation, by vehicle type, under full implementation of the ActSj decarbonization pathway, 2021–2050.

## Action Plan

ActSJ Goals	Metrics
<ul style="list-style-type: none"> <li>100% electric bus fleet by 2032.</li> </ul>	<ul style="list-style-type: none"> <li># of electric buses</li> </ul>
<ul style="list-style-type: none"> <li>100% of new light-vehicle sales are zero emissions by 2035.</li> <li>100% of new mid-to-heavy-vehicle sales are zero emissions by 2040.</li> </ul>	<ul style="list-style-type: none"> <li># of EVs registered in Saint John</li> <li># of EV chargers in Saint John and frequency of use</li> </ul>
<ul style="list-style-type: none"> <li>Aviation and marine fuel converted to low-emission fuel like biofuels, green hydrogen, renewable jet fuel by 2045.</li> </ul>	<ul style="list-style-type: none"> <li>% of marine fuel sold that is low emissions</li> <li>% of aviation fuel sold that is low emissions</li> </ul>
<ul style="list-style-type: none"> <li>Offer renewable shore power for ships when in dock.</li> </ul>	<ul style="list-style-type: none"> <li>kWh of renewable shore power consumption</li> </ul>

### Strategy 1: Electrify Transit

- Saint John is on track to fully electrify its fleet by 2032 by implementing the Public Transit and Fleet Low-Carbon Mitigation Strategy (2022).
- The City plans to share success stories on the fleet transition with Council and the general public.

### Strategy 2: Switch to Zero-Emission Personal and Commercial Vehicles

- The City will require EV charging stations in apartments and other multi-use residential areas, as well as in commercial buildings and parking lots. The City will require charging rough-ins in new homes.
- The City will partner with EV service providers and use federal funding to install EV chargers throughout Saint John.
- The City will work with dealerships and manufacturers to increase awareness of EVs.
- The City will coordinate a task force to help businesses electrify their fleets and deploy e-cargo bikes.

### Strategy 3: Switch to Low-Emission Marine and Aviation Fuel

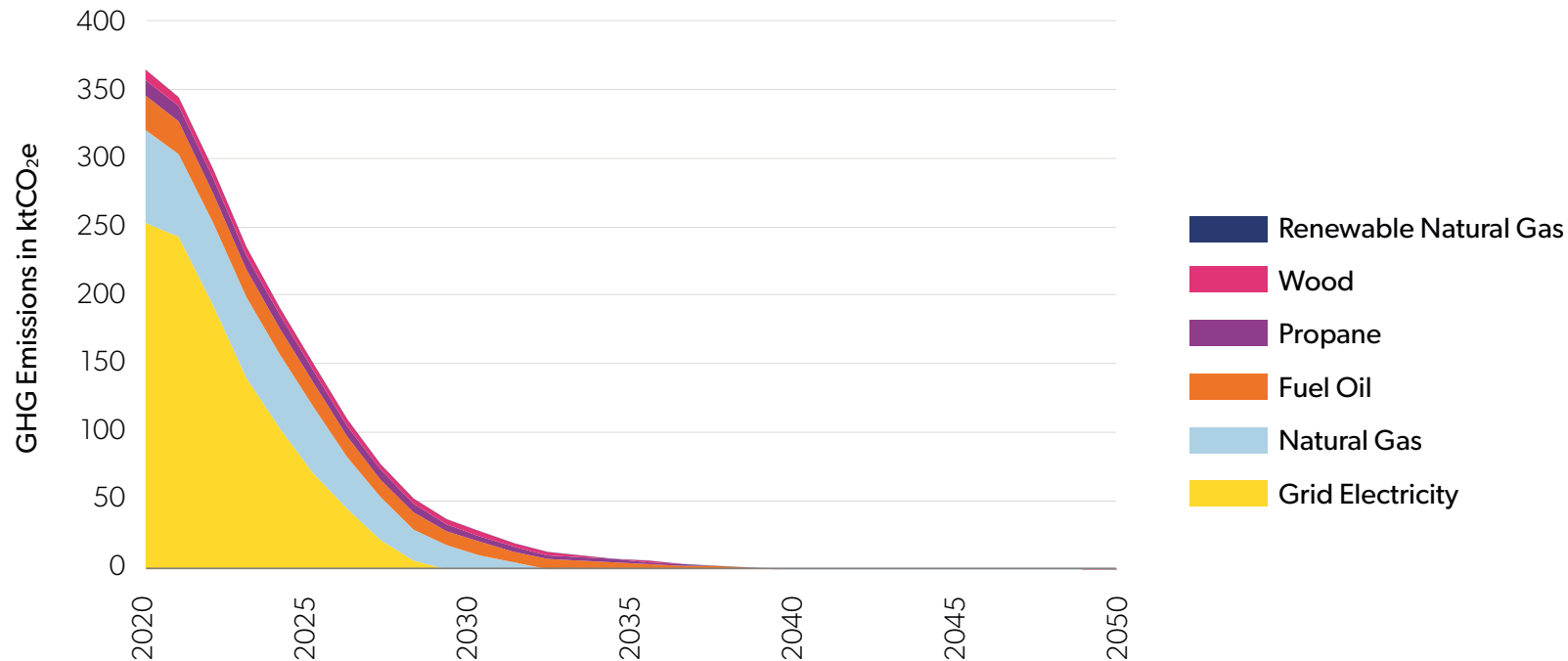
- The City will support Port Saint John with deploying electric or alternative fuel vessels.
- The City will support Port Saint John and Saint John Energy to develop renewable shore power installations at the port.
- The City will assist the Saint John Airport with supporting electric and low-carbon fuel options for aviation.





## Big Move 4: Electrifying and Improving Energy Efficiency in Buildings

Buildings are the second-largest source of emissions in Saint John. Most buildings are heated with natural gas, which was responsible for half of building emissions in 2021. To reduce these emissions, ActSj calls for increasing energy efficiency in buildings, as well as electrification and greening the grid. These strategies can rapidly decrease building emissions.



**Figure 7** GHG emissions for buildings, by fuel type, under full implementation of ActSj, 2021–2050.

## Action Plan

ActSJ Goals	Metrics
<ul style="list-style-type: none"> <li>100% of new residential and commercial buildings are net-zero ready from 2030.</li> </ul>	<ul style="list-style-type: none"> <li># of net-zero-ready buildings</li> </ul>
<ul style="list-style-type: none"> <li>100% of existing buildings are retrofitted by 2040 to achieve 50% thermal savings and 20% electricity savings.</li> </ul>	<ul style="list-style-type: none"> <li># of buildings retrofitted</li> </ul>
<ul style="list-style-type: none"> <li>100% of buildings switched to heat pumps and electric water heaters by 2040.</li> </ul>	<ul style="list-style-type: none"> <li>% of buildings with heat pumps</li> <li>% of buildings with electric water heater</li> <li>% of buildings heating with oil or wood</li> </ul>

### Net-Zero-Ready Buildings

A net-zero building is an energy-efficient building that uses as much energy as it produces through on-site renewable energy, such as solar panels. A net-zero-ready building is designed to the same standards as a net-zero building, but lacks a renewable energy system. These buildings are designed and wired for solar panels.

### Strategy 1: All New Construction is Net Zero

- The City will support commercial and residential developers in identifying and addressing barriers to net-zero construction in Saint John.
- The City will advocate for training and micro-credential programs for skilled tradespeople to increase their knowledge and skills around energy efficiency building practices.
- The City will establish a net-zero building code for all new developments to be net-zero by 2030.
- The City will provide incentives, such as expedited approval processes and awards programs, to support developers and buildings to build to net-zero building code.

### Retrofitting Heritage Buildings

Approximately 80% of dwellings in Saint John were built before the 1990s. These buildings typically consume 67% more energy than those built today.<sup>6</sup> Standard deep retrofit packages cannot be easily applied to heritage buildings while preserving their historic value. The City could leverage its status as Canada's first incorporated city to garner financial support from the federal and provincial governments to bring custom renovation solutions to its heritage buildings.

<sup>6</sup> Carmichael, Bradley T. "Energy Codes: Challenges with Existing Buildings." *Hoffman Architects Journal* 31, no. 4/2014 (2014).

## Strategy 2: Deep Retrofits for Existing Buildings

- The City will advocate for provincial regulations to enable Property Assessed Clean Energy (PACE) programs.

### PACE Programs

Property Assessed Clean Energy programs provide property owners with access to low-interest loans for energy efficiency and renewable energy upgrades to their properties. The loans are repaid over time through additional charges on property tax or utility bills.

- The City will create a benchmarking program that recognizes the most efficient buildings in Saint John.
- The City will require energy use disclosure prior to all building purchase or rental agreements.
- The City will request that Saint John Energy offer retrofit services or partnerships with retrofit service companies.
- The City will offer energy savings workshops for residents and businesses. The workshops can be tailored to specific groups, such as low-income households, renters, seniors, and young parents.

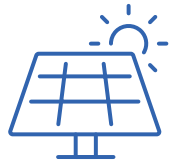
### Equitable Retrofits

About 19% of households in Saint John are low income; Saint John's incidence of energy poverty is even higher at over 34%. Households living in energy poverty may have to choose between heating or other necessities like food or medications.

Deep energy retrofits are costly. Those that could benefit the most from energy efficiency retrofits, which would lower their energy bills, cannot afford them. The City must design initiatives to address this equity issue to ensure that no households are left out of the net-zero transition.

## Strategy 3: Switch to Clean Fuels for Building Energy Use

- The City will support Saint John Energy in expanding its heat pump rental programs for commercial and industrial facilities and adding hot water heat pumps and solar photovoltaic (PV) systems to its programs.
- The City will partner with the construction industry to offer workers training on heat pump installation and maintenance.
- The City will partner with the Saint John Tool Library to develop citizen-led retrofit programs. The library can provide relevant tools and measurement equipment.



## Big Move 5: Generating Renewable Energy

Switching from fossil fuels to renewable energy is key to decarbonization. Electrical energy is supplied by the provincial power grid, which is greening under the Clean Energy Strategy, and from local renewable energy generation by NB Power and Saint John Energy. Alternative fuels, such as renewable natural gas and green hydrogen, can be used for systems that are difficult or impossible to electrify.

### Getting to Net-Zero Electricity

The Zero30 Roadmap is Saint John Energy's plan to achieve net-zero emissions by 2030. Visit <https://zero30.ca/> for more information.

The 2023 Integrated Resource Plan represents NB Power's long-term plan for New Brunswick's energy supply and demand, offering 16 different pathways for achieving a net-zero electricity system by 2035. The plan is available at <https://www.nbpower.com/en/about-us/our-energy/integrated-resource-plan>.

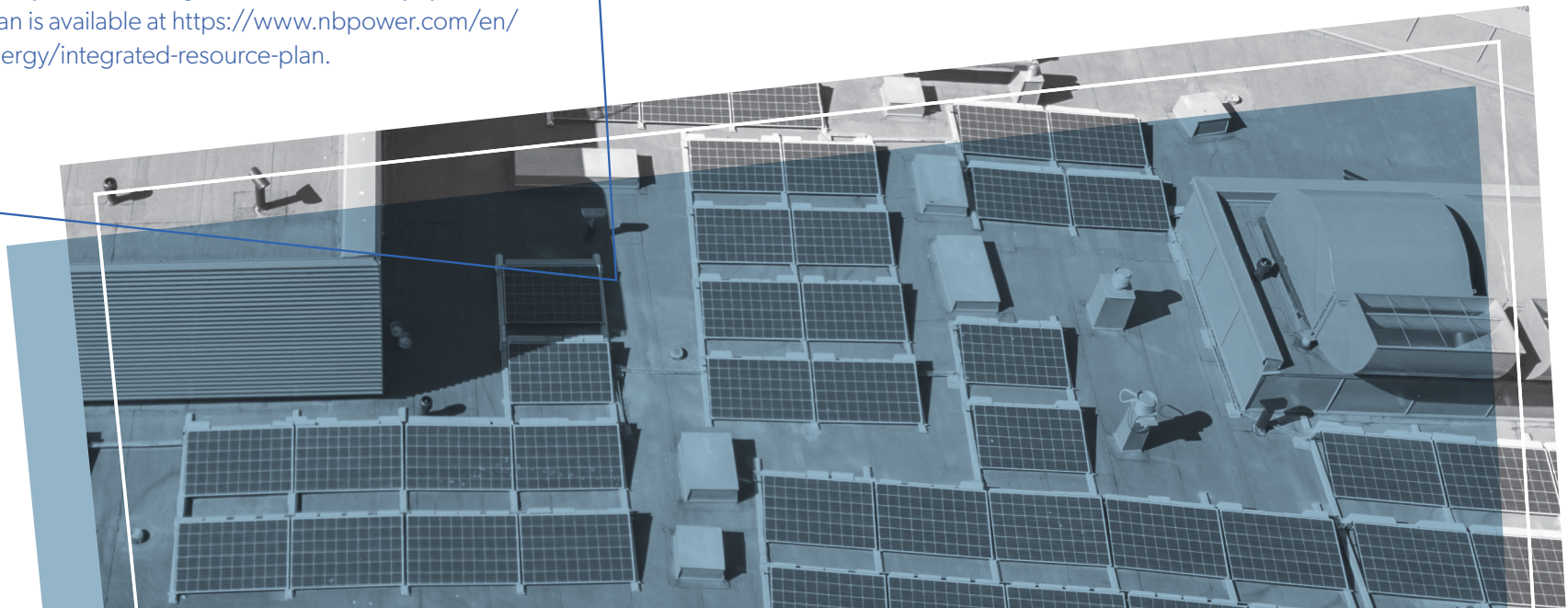
## Action Plan

### ActSj Goals

- Increase renewable energy supply:
  - 40 MW of rooftop solar by 2030, 160MW by 2050.
  - 148 MW of utility-scale solar by 2030.
  - Increase wind power capacity to reach 145 MW by 2030.

### Metrics

- # of renewable energy installations
  - kWh of renewable power energy generated
  - kWh of energy stored
- 
- Power grid is zero emissions by 2030.
  - Grid emissions factor



## Strategy 1: Meet Local Energy Needs Through Local, Renewable Energy Generation

- The City will work with Saint John Energy, NB Power, and the Province to deliver incentive programs for installing solar cells on rooftops.
- The City will support the creation of microgrids that provide distributed renewable energy and energy storage.

### Distributed Renewable Energy

Unlike centralized power plants, distributed renewable energy generation systems are located close to where the energy they produce is used. These systems may serve a single building—through solar cells on a rooftop—or be part of a microgrid, like district energy systems in hospitals, industrial complexes, or university campuses. Distributed energy systems are usually tied to the centralized power grid, but can be operated independently, making them more resilient to power outages and natural disasters.

- The City will implement a zero-emission district energy project in Uptown Saint John.
- The City will support Saint John Energy with the development of a solar group-buy program where one vendor provides bulk solar installations to residential and commercial building owners.
- The City will deploy solar projects on municipal buildings.

## Strategy 2: Decarbonize the Power Grid

- The City will partner with Saint John Energy to take advantage of funding opportunities to deploy emerging technologies for decarbonizing the power grid.



## Big Move 6: Reducing Waste

In 2021, the waste, water, and wastewater sector emitted about 22 ktCO<sub>2e</sub> of GHG emissions. This low level of emissions reflects the work of the City and the Fundy Regional Services Commission and the benefits of the landfill gas capture system at the Crane Mountain Landfill.

However, as Saint John’s population grows, waste and wastewater emissions will rise. To limit them, Saint John must reduce waste and divert more waste away from the landfill. A further challenge is that the GHG Protocol—a global standard for measuring emissions—counts emissions from all trash in the Crane Mountain Landfill as part of Saint John’s emissions, even if it is from other communities.

### Waste Emissions

When food waste, paper, sewage, yard trimmings, and other organic waste decomposes, it releases methane, a greenhouse gas that is 86 times more potent than carbon dioxide in warming the planet.

### Action Plan

ActSJ Goals	Metrics
• Decrease waste generation per capita by 20% by 2030 relative to business-as-planned projections.	• Volume of waste generated
• Increase the waste diversion rate to 80% by 2030.	• Volume of waste diverted
• Reduce water consumption per capita by 30% by 2040.	• Volume of water treated • Volume of wastewater generated

### Strategy 1: Reduce the Amount of Waste Entering the Landfill

- The City will work with the Fundy Regional Service Commission, Crane Mountain Enhancement Inc., and other municipalities in the region to implement waste reduction targets aligned with ActSJ.
- The City will partner with the Fundy Regional Service Commission to advocate that the province-wide Extended Producer Responsibility (EPR) Program integrate more products and materials like appliances, furniture, and construction and demolition materials.

### Making Polluters Pay

New Brunswick’s Extended Producer Responsibility Program makes producers, rather than municipalities and taxpayers, responsible for the cost and management of certain categories of waste. The goal is to encourage producers to make products that last longer, are recyclable, and have less packaging. New Brunswick has EPR programs for paint, oil and glycol, beverage containers, electronic products, pharmaceutical products and medical sharps, and packaging and paper products.

### Strategy 2: Reduce Water Consumption

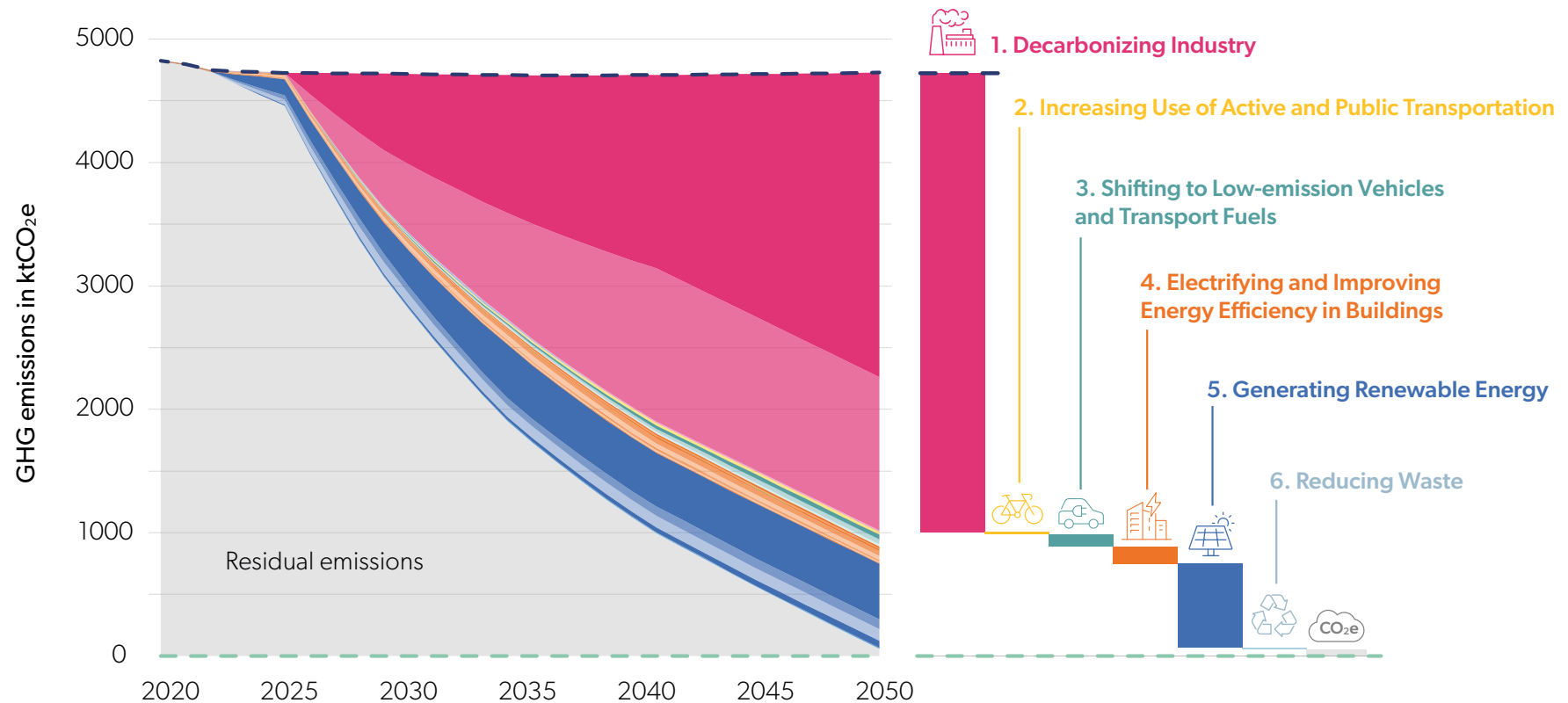
- The City will require that all buildings install a water meter.
- The City will use data from water meters to design a water conservation policy.

# The Big Picture

If ActSJ is implemented in full, GHG emissions in Saint John are projected to follow the trajectory illustrated in Figure 8. The top line represents projections under a business-as-planned scenario in which no additional emission reduction actions are taken. The line above the gray area represents projected emissions if ActSJ is implemented in full.

Each coloured wedge, or section, represents the emissions reduction from different ActSJ actions, which are interdependent.

In 2050, Saint John will have a small amount of residual emissions from the waste and transportation sectors. These emissions can be addressed with accelerated actions, new technologies, or carbon offsets.



**Figure 8** The ActSJ decarbonization pathway compared to a business-as-planned trajectory, 2021-2050.

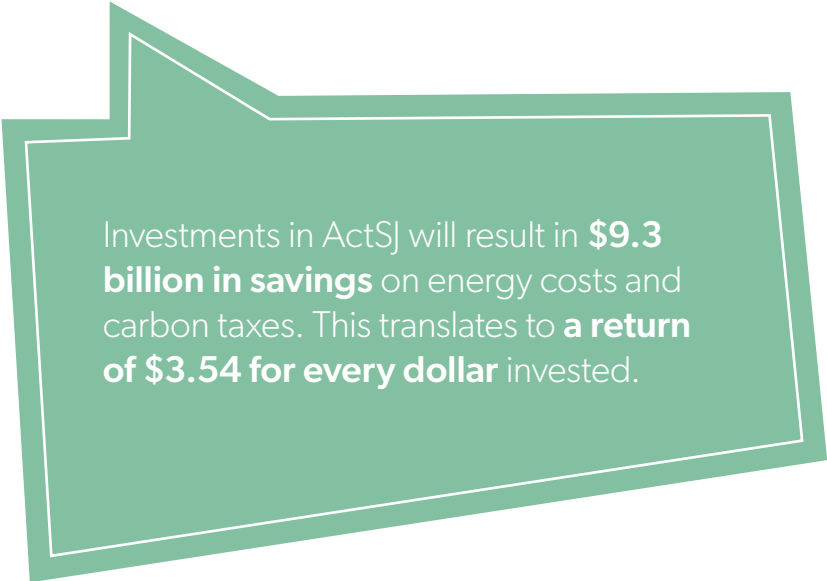
# The Economic Opportunity

## The Investment

Implementing ActSJ requires an **investment of \$2.6 billion between 2023 and 2050**, or an average of \$93 million annually.<sup>7</sup> This amounts to approximately 1.5% of Saint John's annual gross domestic product (GDP).

This investment will come from the City of Saint John and other levels of government, as well as from businesses and community members who invest in electric vehicles, retrofits, community solar projects, and other initiatives to make their day-to-day lives more sustainable.

## The Returns



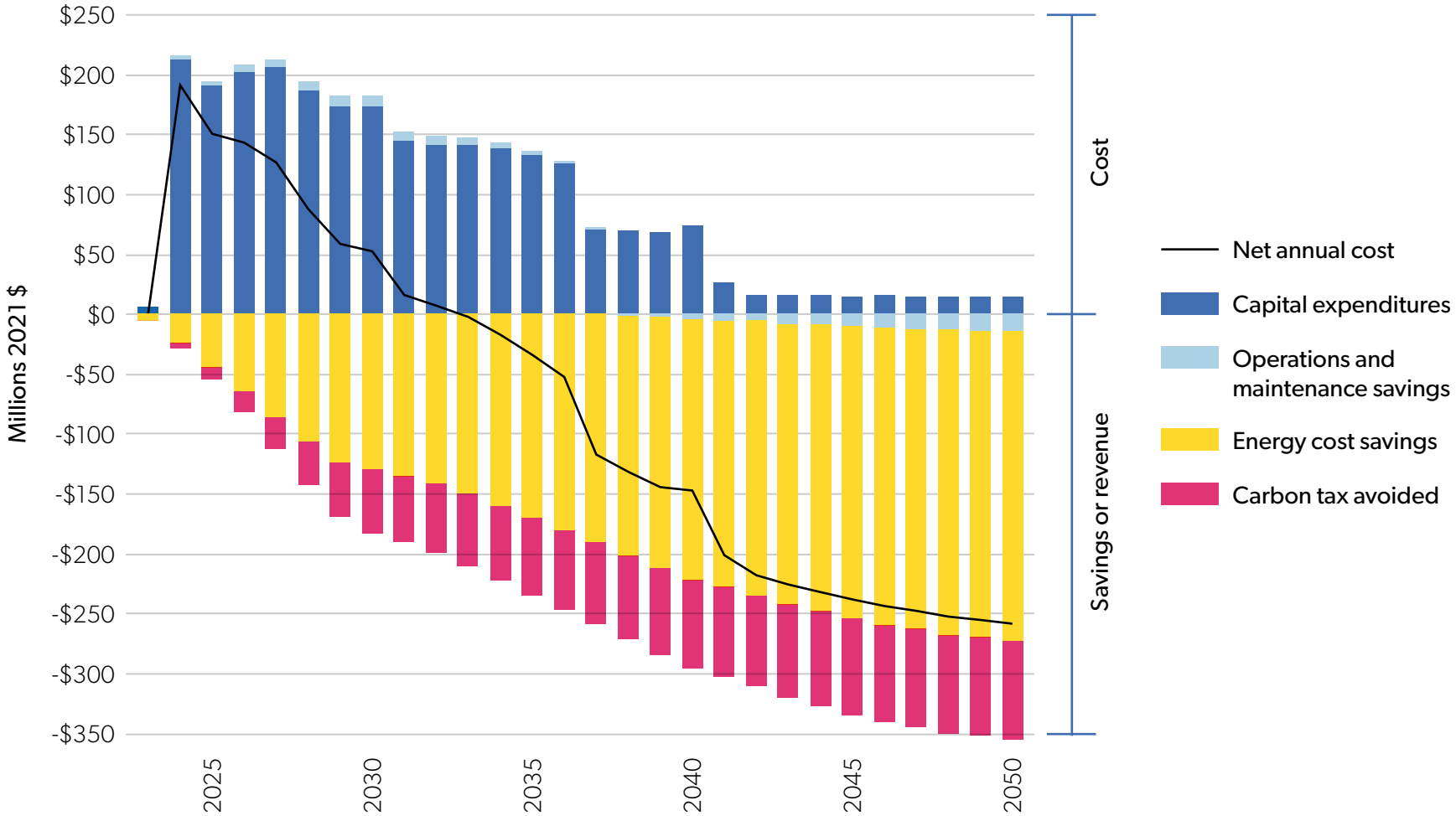
Investments in ActSJ will result in **\$9.3 billion in savings** on energy costs and carbon taxes. This translates to **a return of \$3.54 for every dollar** invested.

Additionally, ActSJ will create over 17,000 job years of employment, or an average of **627 full-time jobs per year**.

**Families in Saint John will pay \$900 less for energy in 2030** than they would if business continues as planned because they will use less energy and pay less for it. They will also use personal cars less often and spend less on maintaining EVs than on maintaining gas- and diesel-powered vehicles. These **savings rise to \$1,600 by 2050**.

<sup>7</sup>Note: Heavy industries were not included in the financial analysis due to limited data.





**Figure 9** Year-over-year investments and returns, undiscounted, under full implementation of ActSj, 2023–2050. The break-even point occurs in 2033. A positive number indicates a cost, while a negative number indicates savings or revenue.

# What Happens Next?

The entire Saint John community, including residents, businesses, and institutions, must work together to achieve ActSJ's ambitious target.

## What Will the City Do?

The City will lay the foundation for and facilitate action by bringing the community together. It will also advocate for resources from the federal and provincial governments and swift action by Saint John's largest emitter: heavy industry. The City's plans include the actions listed below.

- Develop a carbon budget to align municipal investments with Saint John's climate action goals.
- Establish a monitoring, evaluation, and reporting system to track progress on ActSJ.
- Dedicate staff and money to implementing ActSJ.
- Apply an equity checklist to climate change mitigation projects and programs.
- Develop financing strategies, such as revolving loan funds, grant funding, and public-private partnerships, for ActSJ actions led by the City.
- Establish an advisory committee that reports to the Mayor and Council and is charged with stewarding the implementation of ActSJ. The committee should include representation from diverse sectors, non-profit organizations, and residents.

### What is a Carbon Budget?

A carbon budget sets a cap on how much an organization or community can emit—ever. This overall budget can be divided into annual carbon budgets that can be integrated into asset management and financial decision-making processes to ensure emissions are considered.

## What Can Businesses and Institutions Do?

Businesses and institutions have a direct impact on a significant share of emissions. Actions they can take to support ActSJ include, but are not limited to, those listed below.

- Adopt and report on an emission reduction target aligned with ActSJ.
- Consider climate impacts when procuring goods and services.
- Retrofit buildings for energy efficiency and install solar panels on roofs.
- Right-size the vehicle fleet and switch to zero-emission vehicles.
- Provide vehicle charging stations on site.
- Offer remote or hybrid work options.
- Introduce initiatives to reduce waste in the workplace, including going paperless and setting up segregated waste bins for garbage, food waste, and recyclables.

## What Can Individuals Do?

Locals can support ActSJ by pressuring businesses and institutions to change and by implementing the following actions in their day-to-day lives.

- Walk, cycle, or use public transport instead of driving.
- Retrofit homes and install solar panels, along with energy storage.
- Participate in a community-owned solar garden.
- Purchase an electric car or electric bike when the time comes to replace an existing vehicle.
- Advocate for climate action.
- Reduce waste.
- Participate in ActSJ governance and implementation by bookmarking the project's webpage and signing up for any public engagement opportunities.



## City of Saint John

### Community Energy Action Plan

November 2023

# ActSJ

## Pathway to Net-Zero

Climate Action Plan Summary