

Urgent Times, **URGENT ACTION**

The Annual Progress Report on the Environmental
Goals and Climate Change Reduction Act and
Nova Scotia's Climate Change Plan

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The Annual Progress Report on the Environmental Goals and
***Climate Change Reduction Act* and Nova Scotia's Climate Change Plan**

Department of Environment and Climate Change
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Minister's Message

I am pleased to present the second annual progress report on the Environmental Goals and Climate Change Reduction Act, along with the first annual report on Our Climate, Our Future: Nova Scotia's Climate Change Plan for Clean Growth.

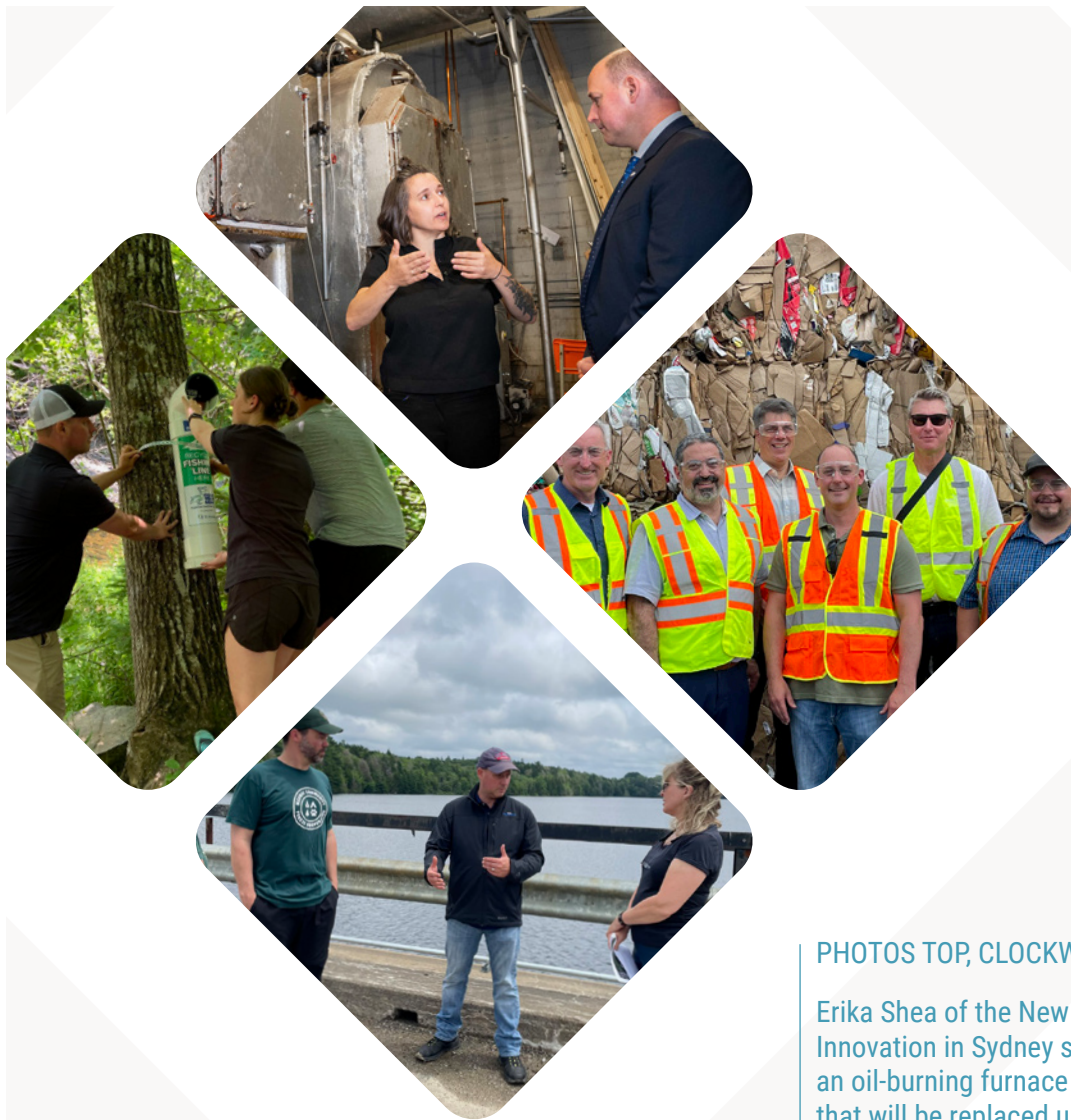
As the Minister of Environment and Climate Change, my mandate is to lead our province's response to climate change, to support the growth of our clean economy, to protect our environment, and to chart our course to achieve net-zero by 2050. It's a big lift and a significant responsibility, and government cannot achieve success on our own.

The response to climate change requires an all-hands-on-deck approach and this report shows that Nova Scotians in every part of the province are leading the way towards a better tomorrow!

- They own and operate businesses that employ fellow Nova Scotians and help grow our clean economy.
- They are rolling out projects to reduce greenhouse gas emissions and make our homes and buildings energy efficient and resilient.
- They are transforming how we produce and use energy. Across our province, clean, renewable energy is taking hold. It is notable to highlight that since January of 2023 eight new onshore wind energy projects are now underway. These are new sources of green energy—some of which are part of our government's rate-base procurement process led by the Department of Natural Resources and Renewables—that will help to green our grid and create enough clean energy to power the equivalent of 248,000 homes. There are also two green hydrogen facilities underway which will create clean energy to benefit people here in our province and set Nova Scotia up to be a global leader in the export of green hydrogen to help other countries meet their clean energy needs. This is the kind of action being led by Mi'kmaq communities, the private sector and communities that is going to transform our province and help get us off coal-fired electricity and fossil fuels to heat our homes.



PHOTO: In the Blue Mountain-Birch Cove Lakes Wilderness Area, set to become Canada's first national urban park.



PHOTOS TOP, CLOCKWISE:

Erika Shea of the New Dawn Centre for Social Innovation in Sydney shows Minister Halman an oil-burning furnace (formerly coal-burning) that will be replaced using funding received from the Sustainable Communities Challenge Fund, reducing the building's GHG emissions by a minimum 130 tonnes of carbon dioxide per year. This is equivalent to the CO₂ sequestered by 155 acres of trees in a year.

A visit to Scotia Recycling in Kentville—one of Nova Scotia's leaders in waste diversion and recycling.

Meeting with the Medway Community Forestry Cooperative in Sissaboo Falls.

Clean Leadership Summer Internship Program interns and Minister Halman installing fish line recycling bins on the West River, Pictou County.

- Together, we are protecting more of our land and water, holding large industry accountable for reducing their emissions and accelerating clean economic growth that is creating new business opportunities and good-paying jobs throughout the province.
- We are taking action to address historic environmental racism and modernizing our environmental regulations so that businesses who want to work in Nova Scotia know and understand the rules they must follow.

These are just a few examples of the actions Nova Scotians and Government are taking in response to climate change and to ensure the long-term health and sustainability of our environment. This report showcases this work for the August 1, 2022 to July 31, 2023 period.

Climate change is the most pressing global emergency, and we are feeling its impacts here. There is no doubt. This has been a difficult year for many Nova Scotians -- Hurricane Fiona caused widespread damage across the province, followed by unprecedented wildfires and flooding this summer. Our most recent climate risk assessment, *Weathering What's Ahead*, tells us that we can expect more climate-related events if action is not taken. However, Nova Scotians are taking action – across this great province, communities, academia, municipalities, citizens, the private sector, my colleagues across government and others are showing the leadership our province and our planet need. This report helps tell this story and shows that all of us should have confidence and optimism that Nova Scotia is adapting to, and mitigating the impacts of, climate change. I want to thank the Nova Scotians who are leading our province forward to this sustainable prosperity.

Tackling climate change presents some big and complex challenges, but early and ongoing action to reduce our greenhouse gas emissions and adapt to climate impacts will lead to opportunities and benefits for Nova Scotians today and for generations to come, contribute to a healthier planet and create a more prosperous and inclusive economy both here in Nova Scotia and globally.

In closing, I want to thank the team at Environment and Climate Change. I have the privilege and honour of working with this passionate group of experts every day – people who have dedicated their careers to creating a better tomorrow. Nova Scotians can have confidence and hope that with their future in this team's hands, we have the best chance of tackling climate change, ensuring the health and sustainability of our environment, and achieving sustainable prosperity.

Sincerely,



The Honourable Timothy Halman
Minister of Environment and Climate Change



PHOTO: From left, Karla MacFarlane, Minister of L'nu Affairs; Wagmatcook Chief Norman Bernard; Eskasoni Chief Leroy Denny; and Timothy Halman, Minister of Environment and Climate Change, sign A Shared Understanding for Kluskap Wilderness Area between the Unama'ki Institute of Natural Resources and the Nova Scotia Department of Environment and Climate Change in Wagmatcook on Wednesday, January 25.

Introduction

The world is changing and so is Nova Scotia. The climate change crisis and biodiversity crisis are connected, and they are hurting the health of Nova Scotians and people globally. These crises threaten

- our health and our homes
- our communities and the ways we work, play, and live
- our ecosystems and the species that live here
- the economy and our ability to afford what we need

To protect our planet, we need to make big changes and be willing to do things differently. This means looking closer at

- how we make electricity and build our homes
- what we throw in the garbage
- what youth learn in school and what jobs are available for them
- how we treat the water and forests
- how we support biodiversity and ecosystems
- how we prepare for and respond to extreme weather and other natural disasters

Nature and biodiversity are our allies in the fight against climate change. They are also important for our own health as they provide us with the clean air, water, and food we need to survive.

We love Nova Scotia, and we want future generations to love it too. The actions we take today are important. Action today will help us create healthy communities and a healthy and clean economy for us and future generations.

Nova Scotia is taking action. We are doing our part.

In 2021, the Government passed the [Environmental Goals and Climate Change Reduction Act](#).

Nova Scotia is doing its part

to address the climate crisis and improve sustainability by contributing to global efforts, like the [United Nations Conference of the Parties \(COP26\) Race to Zero campaign](#) and the [United Nations Sustainable Development Goals](#).



This act is guiding us through the changes we are experiencing. It is helping us create a clean and healthy place for all Nova Scotians to live, work, and play. It does this by putting six principles and 28 goals into law. The government must meet these goals.

In December 2022, the government met two important goals:

- Publishing Nova Scotia's new climate change risk assessment, called [Weathering What's Ahead](#)
- Publishing Nova Scotia's new climate change plan, called [Our Climate, Our Future](#).

The climate change risk assessment describes where and how we are vulnerable to the impacts of climate change. The information in the risk assessment was used to create Nova Scotia's climate change plan.

The information and actions in the Environmental Goals and Climate Change Reduction Act, climate change risk assessment, and the climate change plan work together. They recognize that healthy communities depend on a healthy economy, a healthy environment, and more climate action. They recognize the connections between

- addressing climate change
- increasing Nova Scotia's population
- fixing the health-care crisis
- making life more affordable
- growing the clean economy

This is the progress report for both the Environmental Goals and Climate Change Reduction Act and the climate change plan. It includes updates on the actions happening on both. This report is published every year.

The updates and stories below involve many sectors across the province because we're all in this together.

The Environmental Goals and Climate Change Reduction Act

The Environmental Goals and Climate Change Reduction Act says the government must report on the work it is doing under the act each year. This also includes reporting on the health of the environment, economy, and communities, as well as progress on the actions in the climate change plan.

We cannot know

how far we have come,
if we do not know where
we are now.

Every decision we make influences the health of our environment, economy, and communities. Understanding how healthy Nova Scotia's environment, economy, and communities are is complicated because there are many types of information that can help paint the story of what is happening. Below are some key pieces of information that help to tell a story about what Nova Scotia is like right now.

Some of these factors we can control (for example, how much land is protected), while others we cannot control (for example, inflation), because of what's happening around the country and the world. The work we are doing as part of the Environmental Goals and Climate Change Reduction Act and the climate change plan will impact our province. In each year's report, these key pieces of information will tell the story of the change we are creating together.



The State of Nova Scotia

- ▶ In the last year, Nova Scotia has experienced three extreme events made worse by climate change: **Hurricane Fiona, significant wildfires, and significant flooding events.**
- ▶ **13.2 per cent** of land is protected.
- ▶ Greenhouse gas emissions have been reduced by **36 per cent** from 2005 levels.
 - 14.6 megatonnes of greenhouse gas emissions were emitted in 2021.
- ▶ About **36.1 per cent** of electricity is renewable.
- ▶ In the last year, government approved **ten clean energy projects**:
 - **two green hydrogen projects**
 - **eight wind projects**
- ▶ **There are over 3,200** electric vehicles being driven by Nova Scotians¹.
- ▶ Nova Scotians created **417 kilograms** of waste per person this year.
- ▶ Nova Scotia met the [Canadian Ambient Air Quality Standards](#).
 - As we move off coal, and as more vehicles become electric, our air quality will get even better.
- ▶ **92.4 per cent** of Nova Scotians are satisfied or very satisfied with their life at the moment².
- ▶ Annual inflation in Nova Scotia was **2.0 per cent** in May 2023³.
 - This is lower than the average rate of inflation across Canada (3.4 per cent).
- ▶ In 2021, the poverty rate in Nova Scotia⁴ was **8.6 per cent** of the population.
- ▶ Nova Scotia's population was **1,047,232** as of April 1, 2023⁵, **an increase of 3.9 per cent** from the previous year.
 - A growing population is a good thing for Nova Scotia.
- ▶ In 2021, the GDP generated by clean technology in Nova Scotia **increased by 20 per cent to \$539 million** (the highest increase of any province).⁶
 - Statistics Canada defines "clean technology" as manufactured clean technology goods, as well as services related to construction, support, and scientific research and development.
- ▶ In 2021, approximately **5,500 Nova Scotians**⁷ were employed in clean jobs in the environmental and clean technology sector (for example, wind turbine technicians). This is an **8.5 per cent increase** from 2020, and the third highest increase across provinces.
- ▶ In 2021, the environmental and clean technology products sector⁸ in Nova Scotia was worth **\$889 million**.⁹ **This is an increase of 15 per cent** compared to 2020. An example of a product in this sector would be the software, system, and sensors used to measure and control water use.

Progress on the Environmental Goals and Climate Change Reduction Act

We have been hard at work since last year's report on the Environmental Goals and Climate Change Reduction Act. Government met all our goals for the year 2022. These include the following:

Completing and publishing a provincewide climate change risk assessment

The risk assessment, [Weathering What's Ahead](#), provides reliable information that everyone can use to make smart decisions and adapt to a changing climate.

Creating a climate change plan for clean growth

The climate change plan, [Our Climate, Our Future](#), includes 68 actions that will help us reduce our greenhouse gas emissions, help create jobs and opportunities for businesses in a clean economy, and will protect the well-being of Nova Scotians.



Creating a panel to address environmental racism



Launching the Sustainable Communities Challenge Fund

The government [appointed eight experienced community leaders](#) to the Environmental Racism Panel, including Agassou (Augy) Jones, who was appointed as the first panel member in December 2022. After his appointment, Mr. Jones's first duties were to make recommendations on the panel's work through the development of draft terms of reference, and to recommend other panel members. In June 2023, Mr. Jones was appointed as chair of the panel and eight individuals were appointed as members of the panel. These individuals have a diversity of significant expertise and are connected to their communities. By December 31, 2023, they will bring forth recommendations for concrete actions government can implement to address environmental racism within provincial jurisdiction, including recommendations for the wellness and healing of harmed communities. These recommendations will reflect the experiences, knowledge, and community-based solutions put forth by the people whose voices they are representing.

This is the first time a panel of this nature has been formed to address historic environmental racism in Canada.

In April 2022, the Province announced its partnership with the [Nova Scotia Federation of Municipalities](#) to design and deliver the Sustainable Communities Challenge Fund. Over 100 applications from municipalities, non-profits, post-secondary institutions, and First Nation bands from around the province were received during the first call for applications in November 2022. Projects that have been awarded funding will be announced throughout the summer. Learn more about the fund [here](#).

Initiating work with racialized and marginalized communities to create a sustained funding opportunity for climate change action, and to support community-based solutions and policy engagement



Government has been supporting this goal by:

- ensuring a minimum of 15 per cent of funds awarded under the Sustainable Communities Challenge Fund are for projects serving Indigenous and African Nova Scotian communities
- supporting the [Clean Foundation's Climate Change Leadership Program](#), which supported 124 interns in 2022. Of these interns:
 - » 27 per cent were Indigenous
 - » 10 per cent were African Nova Scotia
 - » 11 per cent were persons living with a disability
- retrofitting 244 homes through the [Mi'kmaw Home Energy Efficiency Project](#)
- establishing a [youth climate change council](#) to raise climate change concerns from youth across the province
- supporting renewable energy projects (through [Rate Base Procurement](#)) with Mi'kmaw communities and other underrepresented groups
 - » This ensures these communities gain the social and economic benefits from the transition to renewable energy.

In addition to these achievements, other highlights from this past year that contribute to goals in the Environmental Goals and Climate Change Reduction Act include the following:

- ✓ Creating six new nature reserves, expanding seven wilderness areas, and protecting an additional 9,300 hectares of Crown land.
 - » This includes creating the new Sackville River Wilderness Area, which will help
 - » protect the Pockwock watershed, which people use for their drinking water
 - » conserve the Sackville River
 - » restore Atlantic salmon habitats

- ✓ Providing \$20 million to [Nova Scotia Crown Share Land Legacy Trust](#) to help protect more of Nova Scotia's land and water.
 - » Nova Scotia Crown Share Land Legacy Trust will flow this funding to conservation organizations that are working to acquire and protect private land with interested landowners.

- ✓ Completing public engagement on updated ambient air quality standards, which will support clean air and the health of Nova Scotians.
 - » [Ambient air quality](#) is the quality of outdoor air and air pollution emissions from many sources, such as industrial facilities (for example, electrical power plants and pulp and paper mills), exhaust from vehicles, natural sources (such as forest fires and trees), and emissions generated in Nova Scotia, neighbouring provinces and states, and globally.

- ✓ Supporting [ecological forestry](#) by organizing Crown land into three zones that different activities can happen in, as recommended in the forest practices review. The three zones are 1) conservation zone, 2) mixed forest or matrix zone, and 3) high-production forest zone.
 - » By doing this, protecting biodiversity is now the priority on 90 per cent of Crown land.

- ✓ Clarifying the rules for the green hydrogen sector so that project developers have clear, easy-to-understand information about the environmental regulations they must follow in Nova Scotia.
 - » This will help us shift to more sources of renewable energy.
- ✓ Approving ten clean energy projects in Nova Scotia.
 - » Two green hydrogen facilities
 - » Eight wind projects
- ✓ Changing the Electricity Act to create more storage solutions for renewable electricity.
 - » This will
 - » speed up the use of energy storage in Nova Scotia
 - » help get us off coal
 - » help us meet our renewable electricity targets
- ✓ [Invest Nova Scotia](#) supported 22 innovative and green companies through the GreenShoots and AscendBio programs.
 - » These companies will help us use our resources in a smarter way, reduce greenhouse gas emissions, and create good jobs.
- ✓ Publishing a [final report with recommendations](#) on how aquaculture regulations can be improved in Nova Scotia.
- ✓ Nova Scotia completed its largest ever procurement of five large wind projects. Each is majority-owned by one or more Mi'kmaw communities.
 - » When the projects are complete in 2025–26, it is anticipated the province will be generating about 70 per cent of its electricity from renewable sources.
- ✓ Investing \$223 million, since September 2021, in energy efficiency.
 - » These investments make life more affordable for Nova Scotians, and act on climate change.

- ✓ Working with and receiving funding from the federal government this year to protect nature, including
 - » \$2 million through the [Nature Smart Climate Solutions Fund](#) for the Hemlock Woolly Adelgid-Old Growth Forest project
 - » Hemlock Woolly Adelgid is an invasive pest that can destroy hemlock trees
 - » \$4.2 million for the [Target 1 Challenge](#), and
 - » \$587,045 (for 2022–24) for the national urban park project and candidate Blue Mountain-Birch Cove Lakes National Urban Park.

More details

on these, as well as progress under each of the 28 legislated goals in the Environmental Goals and Climate Change Reduction Act, can be found in [Appendix A](#).

In addition to the work happening on the Environmental Goals and Climate Change Reduction Act's 28 goals, work is also happening across the province to help build healthy communities, a clean economy, and a healthy environment.

These efforts also contribute to the principles of the Environmental Goals and Climate Change Reduction Act:

- Netukulimk
- Equity
- Sustainable development
- Circular economy
- Shared responsibility
- Climate action

The following snapshot gives a taste of this work. More examples can be found in [Appendix B](#).



Netukulimk

What it is:

As defined by the Mi'kmaq, in the Environmental Goals and Climate Change Reduction Act Netukulimk is “the use of the natural bounty provided by the Creator for the self-support and well-being of the individual and the community by achieving adequate standards of community nutrition and economic well-being without jeopardizing the integrity, diversity, or productivity of the environment.”

Learn more
about Netukulimk [here](#).

In January 2023, the province and Mi'kmaq of Nova Scotia took the first step toward shared governance of Kluskap Wilderness Area. It is nearly 2,800 hectares of land and includes the sacred Mi'kmaw site Kluskap's Cave. The new working relationship and shared commitments are to conserve, maintain, and celebrate the ecological, cultural, and spiritual significance of Kluskap Wilderness Area. The work the province and Mi'kmaq of Nova Scotia are doing together is guided by key principles and values identified by Mi'kmaw communities for the creation and long-term care of Indigenous protected and conserved areas in Unama'ki (Cape Breton). This is the first agreement of this type between Nova Scotia and the Mi'kmaq.



Equity

What it is:

Equity means recognizing people's differences and attempting to counteract unequal opportunities by considering fairness and justice.

Renters in an affordable housing community in Sydney will soon have lower energy bills thanks to a new community solar garden.

Combined with other upgrades, the solar panels will make Pine Tree Park Estates the province's first net-zero, affordable housing community. The province is contributing \$475,000 to help New Dawn Enterprises, which owns Pine Tree Park Estates, install the solar garden. It is expected to meet the community's electricity needs and eliminate 680 tonnes of greenhouse gas emissions per year.

New Dawn has already made other energy efficiency upgrades to the community's homes and buildings, including switching from oil heat to heat pumps, with electric heat as backup.



Sustainable Development

What is it?

Sustainable development is ensuring the needs of the present generation are met without preventing future generations from being able to meet their own needs.

This means shifting the economy in a meaningful way so that it

- is cleaner and more innovative
- leaves no one behind

It also means understanding that climate action helps create a clean and healthy economy, which supports healthy communities. Healthy communities and healthier people mean less demand on the health-care system.

Invest Nova Scotia is a provincial economic development agency. Its GreenShoots program provides funding and mentorship to companies developing technologies that support agriculture and green innovation. All GreenShoots companies are developing solutions that will improve the environment.

Did you know?

The five companies that are currently in Invest Nova Scotia's GreenShoots program are:

Aruna Revolution

- Innovating compostable menstrual pads from locally sourced materials.

Lite-1

- Transforming the dye industry.

Novobind

- Disarming dangerous pathogens with targeted antimicrobials.

Pividl Bioscience

- Using nanotechnology for health, consumer packaged goods, agri-food, and pharmaceutical industries.

RFINE Biomass Solutions

- Turning used coffee grinds into new products.

These companies are receiving a combined \$170,000 in grants and are coming up with new ways of thinking and doing things. Their innovation will help us all use resources more effectively and grow the clean economy.



Circular Economy

What is it?

Circular economy means keeping resources and products in use for as long as possible before throwing them out. This involves making something that could be “waste” into other resources and products as many times as possible. Using resources and products as many times as possible is important because we live on a planet with a limited amount of resources.

Based in Halifax, Nova Scotia, [Oberland Agriscience Inc.](#) works to enable a future with enough food for our food. The company produces a protein ingredient with the lowest carbon footprint in the world. Oberland uses advanced technology that combines machine learning and predictive analytics with existing manufacturing methods to quickly and efficiently produce the ingredient. This allows the company to offer an affordable, responsible protein ingredient for animal feed without causing harm to oceans and natural ecosystems.

Oberland is dedicated to closing the loop in our food system and making a positive impact on the environment. The company believes that food should be natural and healthy for people, pets, and our planet.



Shared Responsibility

What is it?

Creating a healthy economy, healthy communities, and a healthy environment is a shared responsibility—the work belongs to us all. It requires an all-hands-on-deck approach because sustainability is built on relationship and finding solutions together.

In April 2022, the government launched [Action for Health](#), a strategic four-year plan to transform health care in Nova Scotia. The government recognizes that healthy communities depend on a healthy environment and action on climate change. This is why Solution Six of the plan specifically focuses on addressing non-medical factors that affect health and well-being. This includes

- food security,
- housing,
- inequity, racism, and discrimination.

Food security depends on a healthy environment. Resilient housing needs to consider the impacts of climate change. Sustainable prosperity cannot be achieved without equity. Research also shows that improving factors like health, education, housing, income, and social supports can help reduce vulnerability to climate change.

To make progress on Solution Six, the government will support and empower collaboration and partnerships between people, communities, governments, and organizations. Together, through the Action for Health Plan, we will work to achieve good health and overall well-being.



Climate Action

What is it?

Climate action is urgently responding to the global climate emergency. It includes reducing greenhouse gas emissions, creating resilience, and responding to the impacts of climate change. Climate impacts have negative impacts on our personal health, public health, ecosystems, food systems, our infrastructure, transportation networks, and more.

The province is contributing \$3 million toward Woodman's Grove Residences, a POLYCORP housing project in Annapolis Valley. Woodman's Grove Residences will create rental accommodations that provide the comforts of home for tenants and demonstrate some of the leading green technology designed to reduce building emissions. Rainwater recycling and water conservation, triple-glazed windows, building envelope air tightness and R50 equivalent exterior wall insulation, heat pumps, and high-efficiency appliances are just a few of the features of this planned development. Of the 72 units, 60 will be at various levels of affordability, making Woodman's Grove Residences a win for people and the environment.

Climate action supports a clean and healthy province

that all Nova Scotians can enjoy. Climate action is a part of sustainability. This is why the actions in Nova Scotia's climate change plan build on some of the goals in the Environmental Goals and Climate Change Reduction Act. Together, these goals and actions will address climate change, support healthy communities, grow the clean economy, and protect the environment.

More details on the climate change plan and work that has happened since its release can be found below.

Nova Scotia's Climate Change Plan:

In December 2022, the government published Nova Scotia's climate change plan, Our Climate, Our Future. The plan has 68 actions that build on many of the pieces of work that support the goals within the Environmental Goals and Climate Change Reduction Act.

The climate change plan is divided into **three action areas**:

1. **Responding to Climate Impacts**
2. **Reducing our Emissions**
3. **Seizing Opportunities for a Cleaner Sustainable Economy**

Some highlights of action happening so far include

- supporting communities in their response to climate change
- increasing access to clean renewable energy so we can stop using coal and oil for electricity
- expanding access to energy efficiency programs
- increasing access to more sustainable and active transportation

Below is a summary of the work that has happened in the six months since the plan was released. More details on the 68 actions and progress on each can be found in [Appendix A](#).

Government Spending on Climate Action

Last year, the government invested \$50.5 million on climate plan actions. This is in addition to a \$140 million provincial investment in energy efficiency programs over four years. This funding will help low- and middle-income homeowners end their use of heating oil and reduce their energy bills. The funding will also offer low-income households free heat pumps and other home upgrades.

ACTION AREA ONE:

Responding to Climate Impacts

Nova Scotians continue to demonstrate that they are Nova Scotia Strong. They have proven through Hurricane Fiona and the 2023 wildfires and flooding events that they know what needs to be done to respond and adapt to climate change. The climate change plan helps us respond to climate impacts by

- building off the findings of the provincial climate change risk assessment and **increasing access to climate data and information**
- supporting government and industry sectors to develop and implement **climate adaptation plans**
- **helping communities and businesses build capacity** for climate change adaptation planning and implementation
- investing in our protected areas to support the **restoration of natural areas and ecosystems** to help minimize climate impacts

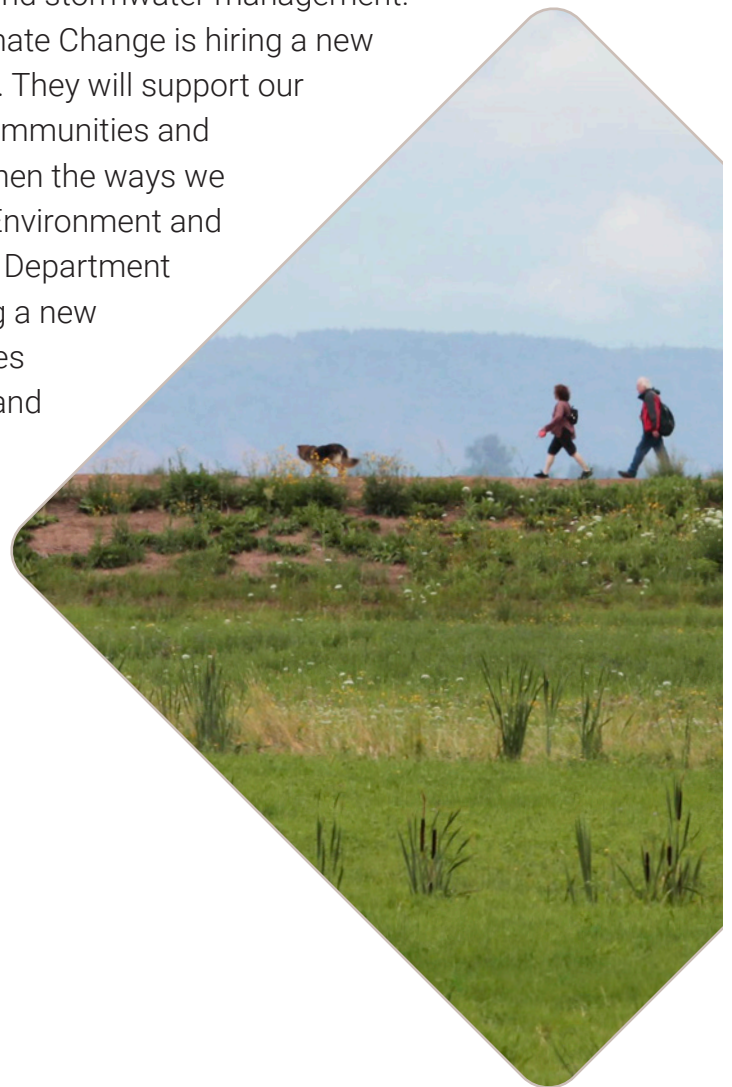
2022–23 Highlights

- Nova Scotia now has an updated climate change risk assessment that outlines how the climate is changing and what that means for risks and opportunities for Nova Scotians and their well-being. It also describes how climate risks will change over time until the year 2100.
- The Department of Education and Early Childhood Development is making sure youth have the information they need to understand and take action on climate change impacts. This year, the department completed a review of what is taught from grades primary to 10. This review showed how social studies and science courses can include the principle of Netukulimk and topics of climate change and sustainability. A new course for high school, Netukulimk 12, is in development and will be piloted in the 2023–24 school year.

Adaptive capacity is the potential or ability of natural systems, institutions, and communities to respond to the effects or impacts of climate change

- Communities and businesses are at the forefront of the fight against climate change and government is working to increase coordination, provide support, and build the capacity needed to anticipate and respond to climate impacts. Cape Sable Historical Society has received funding resources to develop a climate change adaptation coordinator position to help their organization implement their unique adaptation strategy. This will help increase organizational capacity to address climate impacts.
- Government is supporting how we adapt to climate change by hiring two new positions related to flood response and stormwater management. The Department of Environment and Climate Change is hiring a new Flood Management and Adaptation Lead. They will support our understanding of flood-related risks to communities and infrastructure. They will also help strengthen the ways we respond to flooding. The Department of Environment and Climate Change, in collaboration with the Department of Municipal Affairs and Housing, is hiring a new Stormwater Engineer to help municipalities prepare stormwater management plans and design guidelines. The guidelines will leverage community knowledge and will help with flood prevention.

For more information on work responding to climate impacts, see [Appendix A](#).

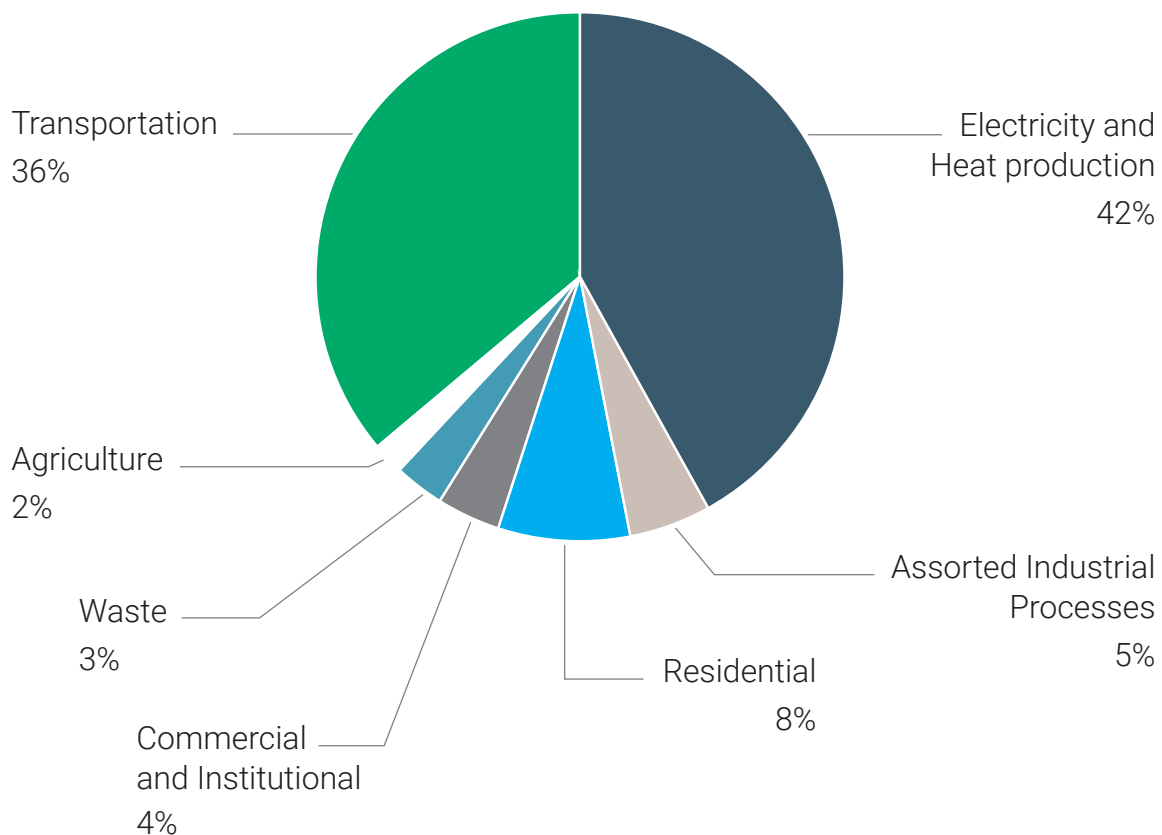


ACTION AREA TWO: Reducing Our Emissions

Reducing greenhouse gas emissions is an important part of the global effort to slow climate change. Here in Nova Scotia, greenhouse gas emissions mainly come from the use of fossil fuels for electricity generation, transportation, and heating buildings.

The government put Nova Scotia's greenhouse gas emission reduction targets in law when they included them in the Environmental Goals and Climate Change Reduction Act. The targets are to reduce greenhouse gas emissions by at least 53 per cent below 2005 levels by 2030 and achieve net-zero greenhouse gas emissions by 2050.

Nova Scotia's Greenhouse Gas Emissions, 2021



Nova Scotia's greenhouse gas emissions in 2021 were 14.6 megatonnes, a 36 per cent reduction in emissions since 2005. Government is reducing greenhouse gas emissions by

- **creating a clean electricity system** to help us maximize our greenhouse gas emissions reductions as we electrify our buildings and transportation systems
- **reducing our demand for energy**, which helps Nova Scotians reduce their energy bills and create a more reliable electricity system
- reducing greenhouse gas emissions from buildings and lowering energy bills by helping more Nova Scotians **get off home heating oil**
- ensuring the buildings of tomorrow are **net-zero and climate resilient**
- developing more sustainable and accessible **transportation options** to increase access to local communities and keep our air clean

2022–23 Highlights

- The government committed to adding at least 500 megawatts of new, local renewable energy. As of this year, we are well on our way to exceeding this target, with 651 megawatts of wind projects being approved or proposed:
 - » 373 megawatts was awarded to five projects through the Rate Base Procurement program.
 - » 148.5 megawatts is proposed through the Renewable to Retail program.
 - » 130.6 megawatts is proposed from a private wind facility by Port Hawkesbury Paper Wind.
 - » 50 megawatts is proposed from a private wind facility by Natural Forces

Together, these projects will represent 20 per cent of electricity generation. This puts Nova Scotia on track to have 70 per cent of our electricity come from renewable sources by 2025–26, bringing us another step closer to our goal of 80 per cent renewable electricity by 2030.

- The government is committed to meeting the renewable energy targets in the electricity sector and holding large emitters accountable for their greenhouse gas emissions. This is why we have legislated our targets and developed a new output-based pricing system for large industrial emitters that requires them to reduce their greenhouse gas emissions. Nova Scotia has a real plan to reduce

greenhouse gas emissions, as outlined in the actions in the Environmental Goals and Climate Change Reduction Act and climate change plan.

- Nova Scotians are reducing greenhouse gas emissions by taking advantage of [efficiency programs available through Efficiency Nova Scotia](#). Efficiency upgrades also reduce energy bills for Nova Scotians. A total of 1,323 low-income homes benefitted from no-cost energy efficiency upgrades through the HomeWarming and [Affordable Multifamily Housing programs](#) this year. This represents 2,879 tonnes of annual greenhouse gas emission reductions and annual bill savings of \$2,154,189 (or about \$1,628 per home, per year).
- Meeting Nova Scotia's goal of having net-zero greenhouse gas emissions will require us to build and renovate buildings differently. The provincial Office of the Fire Marshal is reviewing the new 2020 National Energy Code for Buildings and the 2020 National Building Code in preparation to adopt them in Nova Scotia. New codes mean changes for the construction industry. The Building Advisory Committee has provided feedback on the proposed changes to the codes, including a suggested process and timeline for adoption.

Transforming Our Energy

We are transforming how we produce and use energy. Since January 2023, eight wind projects have been approved for environmental assessment. Four of them have been projects selected through government's rate base procurement process to green the grid. These rate base procurement projects include:

- Benjamins Mill Wind near Falmouth in Hants County, developed by Natural Forces Development and Wskijnu'k Mtmó'taquow Agency Ltd, an organization which represents the 13 Mi'kmaw Nations in the province.
- Higgins Mountain Wind Farm near Wentworth in Colchester and Cumberland counties, developed by Elemental Energy and Sipekne'katik First Nation
- WEB Weavers Mountain Wind near Marshy Hope in Pictou and Antigonish counties, developed by SWEB Development and Glooscap First Nation
- Wedgeport Wind Farm in Yarmouth County, developed by Elemental Energy and Sipekne'katik First Nation

Collectively, these 8 wind projects will generate enough clean energy to power the equivalent of about 248,400 homes.

Green Choice Program

The Green Choice Program will allow large industrial and institutional energy consumers to purchase 100 per cent renewable electricity once new renewable projects are ready. This helps to reduce greenhouse gas emissions as well as costs for industries operating in a competitive global market. The program is anticipated to start accepting applications by the end of 2023. For more information visit their website [here](#).

- The Department of Public Works is working to reduce greenhouse gas emissions and improve the health of Nova Scotians by developing an active transportation strategy, which is expected to be completed in fall 2023.
- There are currently 29 communities in Nova Scotia that have active transportation plans. The Department of Natural Resources and Renewables has supported Bicycle Nova Scotia to work with four more communities to develop core active transportation networks. Currently, 31 per cent of the communities with active transportation plans have been awarded funding to build their core active transportation network projects.
- The Department of Fisheries and Aquaculture continues its program to support energy-saving opportunities in the seafood processing sector and provincially owned fish hatcheries with the department's dedicated onsite energy manager, contracted through Efficiency Nova Scotia. The onsite energy manager has helped the seafood industry save an average of \$7 on energy costs for every \$1 invested in upgrades and has reduced greenhouse gas emissions by more than 3,900 metric tonnes since 2021.

Nova Scotia is recognized

nationally for work in energy efficiency programming. Efficiency Canada's 2022 [Canadian Energy Efficiency Scorecard](#) ranks Nova Scotia second in the country, one spot higher than in 2021.

For more information on work to reduce emissions, see [Appendix A](#).

ACTION AREA THREE:

Seizing Opportunities for a Cleaner Sustainable Economy

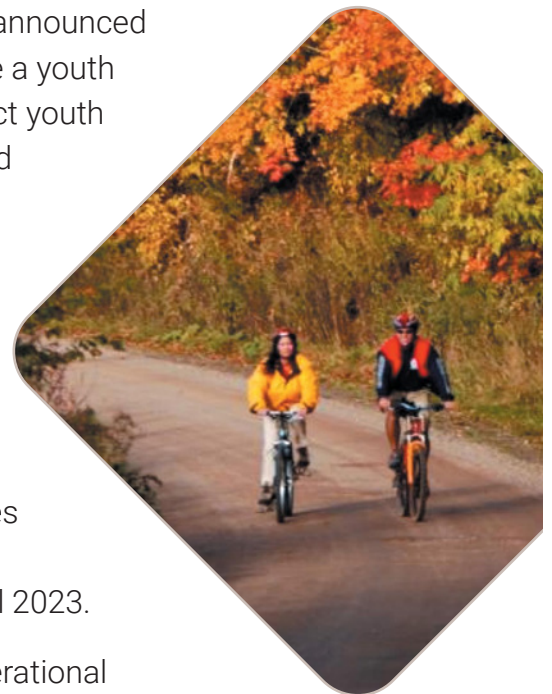
Industries, small businesses, researchers and communities across Nova Scotia are already investing in opportunities for success in the clean economy. Actions in the climate change plan are expanding on this work by:

- **partnering with experts** who can help advance the technologies needed to help us reach net-zero greenhouse gas emissions
- ensuring Nova Scotians can **develop the skills needed for the clean economy**
- responding to local priorities and **helping communities take action on climate change**
- positioning Nova Scotia as a global leader in the clean economy by **supporting a more competitive environment for clean investments**



2022–23 Highlights

- Ten African Nova Scotian and Indigenous trainees completed energy advisor training through the Clean Foundation’s Energy Advisor Training program in 2022–23, with funding continuing this year. This is supporting skill building and increasing access to clean energy training opportunities for racialized workers.
- The Department of Environment and Climate Change announced \$800,000 in funding for the Clean Foundation to create a youth climate council which will provide a platform to connect youth directly with the government on climate challenges and opportunities. The first cohort of the youth climate council will be in place fall 2023.
- The Department of Environment and Climate Change announced \$5 million in funding for the Clean Foundation to deliver a four-year program which will hire and train five new climate change coordinators. These coordinators will help communities across Nova Scotia to address their climate priorities. Community recruitment is expected to begin in late fall 2023.
- The offshore renewable energy sector presents a generational economic opportunity for Nova Scotia. The government worked with the federal government to set the legislative framework for offshore renewable energy which will allow Nova Scotia to accelerate offshore wind development. This also supports the development of the green hydrogen sector, which is proposing to use offshore wind to produce hydrogen. This supports Nova Scotia’s vision to become a national and international leader in the clean renewable energy sector, especially with green hydrogen production and export. A green hydrogen action plan will be released in 2023.



For more information on work to seize opportunities for a cleaner sustainable economy, see [Appendix A](#).

Solutions in Action: Looking Ahead to the Next Steps for Nova Scotia

Healthy communities depend on a healthy economy, a healthy environment, and more climate action. Over the past year, the government has invested in solutions and new actions that

- support the health of Nova Scotians
- grow the clean economy
- address both the biodiversity and climate change crises

In 2022, the government released the climate change risk assessment, which shows how Nova Scotia will be impacted by climate change over the next 80 years. The findings of this report informed the 68 actions in Nova Scotia's climate change plan. Together the climate change plan and the Environmental Goals and Climate Change Reduction Act map out the solutions we are working on to achieve sustainable prosperity within our province.

Sustainability is a shared responsibility. Many partners across Nova Scotia are featured in this report and in appendices [A](#) and [B](#). We celebrate their leadership, partnerships, and important contributions to this work. The government is committed to continuing to work with Nova Scotians and others to create a sustainable future.

In the next year Nova Scotians can expect the following:

- A protected areas strategy to be released by December 31, 2023.
 - » This will help to meet the goal to protect at least 20 per cent of Nova Scotia's total land and water mass by 2030 and minimize climate impacts by protecting natural areas.
- A plan to meet Nova Scotia's solid waste goal, including specific actions and interim targets.
 - » This will help to meet the goal that Nova Scotians will make 300 kilograms of waste (or less) per person, per year by the year 2030 and encourage businesses to create and use waste in different ways (for example, turning it into new products to sell).

- The launch of a community solar program.
- A pilot project and feasibility study on the use of electric school buses and further supports to expand net-zero affordable housing.
- More work to update Nova Scotia's air emissions targets and ambient air standards to support clean air and the health of Nova Scotians.
- Government support for the important work of the panel that is addressing environmental racism.
- Action, preparation, and response to climate impacts through government department adaptation strategies and the placement of climate change coordinators in Indigenous and African Nova Scotian communities.
 - » This will help communities across Nova Scotia to improve their well-being in the face of a changing climate.
- Improvements for businesses that contribute to our healthy environment and clean economy. This includes increased program incentives and the modernization of the environmental assessment process.



We will continue working together and building on our successes to

- protect the environment
- support healthy communities
- grow the clean economy
- take action on climate change

Our actions today will support our health and resilience now and for years to come. Nova Scotia will keep being a leader. Although the work continues, and there is much to be done, we are firmly on the right path to a cleaner, healthier, and more sustainable future for all Nova Scotians.



¹ <https://data.novascotia.ca/Permits-and-Licensing/Electric-Vehicle-Registration-Data/avxy-ifhs>

² https://www.novascotia.ca/finance/statistics/archive_news.asp?id=18106&dg=&df=&dto=0&dti=24

³ https://www.novascotia.ca/finance/statistics/archive_news.asp?id=18994&dg=&df=&dto=0&dti=3

⁴ https://www.novascotia.ca/finance/statistics/archive_news.asp?id=18823&dg=&df=&dto=0&dti=24

⁵ https://www.novascotia.ca/finance/statistics/archive_news.asp?id=18999&dg=&df=&dto=0&dti=3

⁶ <https://novascotia.ca/finance/statistics/news.asp?id=18488>

⁷ <https://novascotia.ca/finance/statistics/news.asp?id=18488>

⁸ Statistics Canada defines environmental and clean technology products as “any process, product or service that reduces environmental impacts through any of the following three strategies: environmental protection activities that prevent, reduce or eliminate pollution or any other degradation of the environment; resource management activities that result in the more efficient use of natural resources, thus safeguarding against their depletion; the use of goods that have been adapted to be significantly less energy or resource intensive than the industry standard.”

⁹ <https://novascotia.ca/finance/statistics/news.asp?id=18488>

