



Resource Guide to Community Net-Zero Action

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Governance

Changing Climate, Changing Communities: Guide and Workbook for Municipal Climate Adaptation

This Guide and Workbook is a milestone-based framework to assist local governments in the creation of adaptation plans to address the relevant climate change impacts associated with their communities. [Learn more.](#)

CLIMAtlantic: Enhancing Atlantic Climate Resilience

CLIMAtlantic facilitates access to data and information that supports adaptation to climate change in Atlantic Canada through collaboration, networking, and partnerships. [Learn more.](#)

Community Energy Planning: A Primer for New Brunswick Municipalities

This primer was developed in 2016 as a resource for communities interested in developing a community energy plan in New Brunswick. It provides information on the value and benefits of community energy planning, how to get started, how to engage local partners, steps for developing and implementing a plan, and concrete municipal actions and approaches to realizing a community energy plan. [Learn more](#)

Global Covenant of Mayors Canada Companion Guide

A simple guide for Canadian municipalities using the PCP and/or BARC frameworks who want to join the Global Covenant of Mayors, the world's largest alliance of cities and local governments in the fight against climate change. [Learn more.](#)

Guide: How to Develop an Asset Management Policy, Strategy and Governance Framework

This guide will show you how to develop an asset management policy, strategy and governance framework for your Canadian municipality. Download the guide [here](#).

Local Governments for Sustainability Canada (ICLEI)

ICLEI provides a wide range of services for local, provincial and federal governments in support of developing sustainable, climate-ready communities. Services include adaptation and resilience planning, energy and emissions planning, capacity building and more. [Learn more](#)

Municipal Energy Roadmap by Green Municipal Fund (GMF)

A detailed report that offers timely and specific guidance in identifying the best solutions for Canadian communities to achieve significant greenhouse gas emissions reductions in their municipal and community buildings and meet their long-term sustainability

objectives. Download the roadmap report [here](#). Learn more about the Municipal Energy Roadmap [here](#).

The Relationship Agreement & Memorandum of Understanding Toolkit

This is one of many toolkits developed by Future Cities Canada and Evergreen. The toolkit explains and provides a guideline for those who are collaborating with Indigenous communities and/or organizations to create MOUs and relationship agreements that symbolize and put into action the importance of establishing and maintaining respectful, equitable, and reciprocal relationships. [Learn more](#).

Staff

Municipal Climate Change Staff Guide

Just as no two communities are alike, neither is their approach to tackling climate challenges. This resource was created to aid municipal staff in establishing themselves as leaders on climate through practical information, resources, checklists and templates. Download the PDF guide [here](#). Learn more about the guide [here](#).

New Brunswick & PEI (NB-PEI) Municipal Working Group

Launched in 2016, the New Brunswick & Prince Edward Island (NB-PEI) Municipal Working Group is a resource for municipalities engaged in community energy planning, partnership-building, and Smart Energy projects to share their experiences, lessons learned, and transfer knowledge about best practices. [Learn more](#).

Data

The Climate Atlas of Canada

The Climate Atlas of Canada combines climate science, mapping and storytelling to bring the global issue of climate change closer to home for Canadians. It is designed to inspire local, regional, and national action that will let us move from risk to resilience. [Learn more](#).

Climate Data for a Resilient Canada

Climate Data provides high-resolution climate data to help decision-makers build a more resilient Canada. [Learn more](#).

Federal Flood Mapping Guidelines Series

In consultation with provincial and territorial partners and key stakeholders, the federal government has developed new documents in the Federal Flood Mapping Guidelines Series. The documents contained in the Federal Floodplain Mapping Guidelines Series are a resource for floodplain mapping projects and activities undertaken across Canada. These guidelines are meant to advance and standardize flood mapping activities. [Learn more.](#)

Flood Mapping Types and Process

Flood maps are tools used to help prepare for floods and reduce their impacts. They outline potential flood hazards that help decision-makers with flood preparedness and mitigation, land use planning, emergency management and public awareness of flood risk. The Government of Canada provides resources about the importance of flood mapping, types of flood maps, and the flood mapping process. [Learn more.](#)

An Introduction to Climate Change: A Canadian Perspective

This report discusses the earth's natural climate, the greenhouse effect, and climate prediction, a warmer World and a warmer Canada. It also discusses ways in which we can respond to climate change, and the need for action at a global-political, Canadian and citizen level. Download the full report [here](#).

Municipal Energy Emissions Database (MEED)

MEED is an open data platform that builds GHG inventories using downscaled national and regional data sources. The inventories are free. Any local government can use MEED to report on emissions and get started with climate action. [Learn more.](#)

Photovoltaic Potential and Solar Resource Maps of Canada

This web-based mapping application gives estimates of photovoltaic potential (in kWh/kWp) and of the mean daily global insolation (in MJ/m² and in kWh/m²) for any location in Canada on a 60 arc seconds ~2 km grid. [Learn more.](#)

PIEVC Engineering Protocol

This free protocol systematically reviews historical climate information and projects the nature, severity and probability of future climate changes and events. It also establishes the adaptive capacity of an individual infrastructure as determined by its design, operation and maintenance. [Learn more.](#)

Smart Energy Communities Benchmark

The Smart Energy Communities Benchmark paints a picture of what a Smart Energy Community looks like, and provides a powerful benchmark that Canadian communities can use to track their progress on their energy-smart journey. [Learn more.](#)

Financials

Financing Tools for Local Climate Action Toolkit

This toolkit explains how your municipality can leverage private and community investors to help you take action on climate change in your community. Download the toolkit [here](#). Learn more about the toolkit [here](#).

System Advisor Model (SAM) Tool

The System Advisor Model (SAM) is a free techno-economic software model that facilitates decision-making for people in the renewable energy industry. SAM can create financial models as well as renewable energy models for a variety of projects. [Learn more](#).

Strategy

Accelerating the Implementation of Renewable Energy (AIRE) Protocol

Provided by QUEST Canada, the Accelerating the Implementation of Renewable Energy (AIRE) Protocol provides municipalities with the means to establish and deploy more collaborative planning processes for local renewable energy development. [Learn more](#).

Accessing Indigenous Traditional Knowledge: A Toolkit

The Toolkit outlines how to use storytelling and talking circles to facilitate the sharing of Traditional Knowledge (TK) about Indigenous resilience among TK holders, their communities and local emergency management practitioners. Download the toolkit [here](#).

All Hazards Risk Assessment Methodology Guidelines

This document has been developed by Public Safety Canada, in close partnership with Defense Research and Development Canada - Center for Security Science, as part of the federal All Hazards Risk Assessment initiative (2012-2013). Download [here](#).

Building Community Resilience Through Asset Management: A Handbook & Toolkit For Alberta Municipalities

This handbook introduces asset management concepts with a focus on implementation to small and mid-sized communities. [Learn more.](#)

Climate Resilience and Asset Management Video Series

The Federation of Canadian Municipalities (FCM) created this video series to share how municipalities and practitioners across Canada are making climate action a part of their municipal asset management practices and decision-making. [Learn more.](#)

Community Disaster Resilience Planning

Building community disaster resilience is an ongoing, year-round process aimed at strengthening a community's ability to respond to a disaster. This site guides you and your community team through the Community Disaster Resilience Planning (CDRP) process. [Learn more.](#)

The Community Energy Implementation Framework

A guide to help communities move Community Energy Plans from a vision to implementation. It includes ten strategies that provide insights, advice and a proposed path forward to foster widespread political, staff and stakeholder support, build staff and financial capacity, and embed energy into local plans, policies and processes to support implementation. [Learn more.](#)

Community Energy Planning Toolkit

Created by the Community Energy Association (CEA), this toolkit is written primarily for local elected officials, municipal and regional planners and engineers, real estate developers, as well as anyone interested in community sustainability and energy opportunities. [Learn more.](#)

The Cost of Doing Nothing (CODN) Toolbox

Developed by ICLEI - Local Government for Sustainability, this toolbox provides a jumping-off point for municipalities to assess the costs of doing nothing within their own local context, and support their own climate adaptation planning process. It provides municipal decision-makers with guidance on collecting locally-relevant data and weighing the costs of action versus inaction. [Learn more.](#)

Economic Impact of New Brunswick Community Energy Plans: Primer & Workbook

Developed by QUEST, this workbook is aimed at articulating the local economic benefits of the development and implementation of CEPs with the goal of improving understanding of the value of implementing CEPs among municipalities and their stakeholders in New Brunswick. Download the full workbook [here](#).

Energy Poverty and Equity Explorer

The Energy Poverty and Equity Explorer tool, developed by Canadian Urban Sustainability Practitioners (CUSP), offers municipalities access to relevant data so they can better understand energy poverty and other equity and affordability challenges in their communities. The resource is designed to help municipal staff develop equitable and inclusive clean energy programs to meet residents' needs. [Learn more](#).

Enhancing the Resilience of Canadian Electricity Systems for a Net Zero Future

This scoping paper examines the expected climate-induced risks to Canadian electricity systems and discusses opportunities to enhance their resilience on the path to net zero. [Read more](#).

Guide: Building Sustainable and Resilient Communities with Asset Management

Read this guide to learn why you should build sustainable practices into your asset management approach, and how you can get started. Download the guide [here](#).

Guide: Community Resilience Mini Guide

Actionable strategies to build community climate resilience. Download the full guide [here](#).

Guide: Integrating Climate Change Considerations into Municipal Asset Management

Integrating climate change into asset management is not easy. Climate change and its implications for municipal services and infrastructure are complex. Using this guide you will help your municipality establish a clear process and framework. Download the guide [here](#). Learn more about climate resilience and asset management [here](#).

Indigenous Clean Energy Leadership for Canada's Clean, Electric Future

This paper traces the rising waves of Indigenous participation in clean energy over the past two decades. It looks at how to catalyze exponential growth in Indigenous clean energy opportunities, proposing specific actions and initiatives that can materially contribute to Canada's clean electricity future. [Read more](#).

Integrating Equity, Diversity and Inclusion into Municipal Climate Action

To help communities across Canada better understand and employ the concepts of equity, diversity and inclusion (EDI) into each stage of their climate action planning, the Partners for Climate Protection (PCP) program, from ICLEI Canada and the Federation of Canadian Municipalities (FCM), has developed the Integrating equity, diversity and inclusion into municipal climate action resource. This introductory resource was created to help your municipality take the first step on their EDI journey. [Read more.](#)

The Lily Pad Network: A Natural Analogy to Advance Resiliency

The Lily Pad Network is a conceptual framework that takes the concept of resiliency hubs and applies it to the experience of Hurricane Harvey. The lily pad analogy came from the idea that resiliency hubs are like the elements that float above danger when disaster strikes. [Learn more.](#)

Municipal Climate Action Hub (MCA Hub)

The Municipal Climate Action Hub is one of the resources provided to the Community of Practice across Canada. It focuses on providing municipal staff with curated resources on climate change mitigation and adaptation, tailored to the municipality's current progress and institutional readiness in the respective areas. [Learn more.](#)

Partners for Climate Protection (PCP)

The Partners for Climate Protection (PCP) program is a national network of over 400 municipalities with the shared goal of taking action against climate change and reducing local greenhouse gas emissions. [Learn more.](#)

Report: Building Community Resilience: Key Considerations and Lessons Learned from 12 Canadian Communities

This report presents lessons learned from participating municipalities and energy utilities and leverages them into a guide for communities interested in starting or reviewing their climate adaptation and climate planning strategy and their emergency responses, with a specific lens on energy infrastructure. Download the full report [here.](#)

Toolkit: Develop and Implement Community Resiliency Plan

The Justice Institute of British Columbia offers a full suite of digital tools to help communities develop and implement a Community Resiliency Plan. [Learn more.](#)

The What Works Toolkit

An online toolkit, designed for Canadian organizations looking to adopt equity and diversity initiatives within their organizations. It includes tangible actions organizations and individuals can take, resources designed to set out policies and approaches for

recruitment, mentorship, promotion, and retention of board members and employees, as well as anti-racism, anti-harassment, and inclusive workplace strategies, and other related relevant activities and initiatives. The toolkit also features examples from Canadian organizations, profiling diversity successes. [Learn more.](#)

Land Use

Report: Combatting Canada's Rising Flood Costs: Natural Infrastructure is an Underutilized Option

Prepared by the Insurance Bureau of Canada (2018), this report provides guidance to those considering or opting for a natural infrastructure solution using the Natural Infrastructure Implementation Framework. [Learn more.](#)

Energy Networks

Canadian BioEnergy Center (CBEC)

Canadian BioEnergy Center (CBEC) provides technological support to the forest and agriculture sectors to work cooperatively towards the common goal of developing an ecologically sustainable and economically viable bioenergy sector in Canada and the world. [Learn more.](#)

The Canadian Renewable Energy Association (CanREA)

CanREA is the voice for wind energy, solar energy and energy storage solutions that will power Canada's energy future. They work to create the conditions for a modern energy system through stakeholder advocacy and public engagement. [Learn more.](#)

Energy Affordability Program Roundtable

The roundtable meets quarterly and focuses on aligning industry efforts in promoting awareness of energy-efficiency opportunities and broadening participation opportunities for low-income consumers. [Learn more.](#)

Maturity Scale for Greenhouse Gas Emission Reduction

An evaluation tool that helps your municipality identify areas to improve your capacity to achieve emissions reductions. Download the scale [here](#). Learn more about the scale [here](#).

New Brunswick Renewable Energy Case Studies

Renewables New Brunswick is an online center that aims to promote energy efficiency, sustainability best practices, and renewable projects and technologies throughout the province of New Brunswick. [Learn more.](#)

PVWatts® Calculator

Estimates the energy production and cost of energy of grid-connected photovoltaic (PV) energy systems throughout the world. It allows homeowners, small building owners, installers and manufacturers to easily develop estimates of the performance of potential PV installations. [Learn more.](#)

RETScreen® Clean Energy Management Software

The RETScreen® Clean Energy Management Software platform enables low-carbon planning, implementation, monitoring and reporting. [Learn more.](#)

Smart Grid Innovation Network

The Smart Grid Innovation Network supports Canada's clean energy transition by advocating for the smart energy sector. Through education, vendor support, business model innovation and smart grid technology, they leverage their position in the Canadian energy sector to create an impact. [Learn more.](#)

Wind Energy Development: Best Practices for Indigenous & Public Engagement

This best practice guide outlines practices and procedures to facilitate the responsible and sustainable development of wind energy in Canada. Download the full guide [here.](#)

Water & Waste

Biomass Solutions Biomasse (BSB)

Biomass Solutions Biomasse (BSB) is a leading biomass energy provider, offering the sale of BTUs through contract and biomass heating equipment. BSB provides a profitable solution to replace fossil fuels while supporting the growth of the local economy. [Learn more.](#)

The Gaia Project

The Gaia Project nurtures the natural curiosity and intelligence of New Brunswick students through inquiry-based projects about energy, waste, water, transportation and sustainability. [Learn more.](#)

Transportation

CUTA's On-Demand Transit Toolkit

CUTA, Metrolinx, and Leading Mobility Consulting have partnered to develop the On-Demand Transit Toolkit to help advise service design objectives, implementation strategies, and considerations for on-demand transit projects. Transit planners and decision-makers can benefit from using this toolkit to gain key insights about implementing On-Demand Transit. The toolkit covers five themes and includes considerations at each step of implementing on-demand transit and case studies for on-demand transit deployments. [Learn more.](#)

The Gaia Project

The Gaia Project nurtures the natural curiosity and intelligence of New Brunswick students through inquiry-based projects about energy, waste, water, transportation and sustainability. [Learn more.](#)

Reimagining Public Spaces: New Shared Mobility Solutions - A Practitioner's Toolkit

The Reimagining Public Spaces toolkit provides a simple starting point for communities to explore innovative approaches for public spaces, accelerate their potential to meet the unique challenges of their own context, and better address the diverse needs of all. [Learn more.](#)

Buildings

The Canadian Passive House Institute (CanPHI)

The Canadian Passive House Institute (CanPHI) is a registered non-profit educational organization providing Canadians with the knowledge, tools and confidence to design and construct buildings that meet the world's most radical and verified energy standard, the international Passive House Standard. [Learn more.](#)

Climate Resilient Home (CRH)

The Climate Resilient Home (CRH) provides a road map to help homeowners, builders, municipal staff and elected officials in the Greater Edmonton Region make investment and policy decisions to improve the climate resiliency of homes. [Learn more.](#)

Shift Energy - Energy Optimization Software (EOS)

Energy Optimization Software (EOS) is a highly secure cloud-based software that works with your existing building systems to reduce energy costs in commercial buildings.

[Learn more.](#)

The Municipal Guide to Net Zero Energy Ready Building Codes

Municipalities across Canada have set ambitious climate targets. The path to meeting these climate commitments must include finding ways to optimize building energy efficiency. This guide contains everything you need to understand tiered codes, the advantages of adopting an ambitious tier, and how municipalities can use the new codes to achieve net-zero emissions by 2050. [Download the guide.](#)

Funding

Arctic Energy Alliance (AEA) (NT)

Arctic Energy Alliance (AEA) has energy experts and funding available to help NWT businesses, non-profits, or community governments conserve energy and improve its energy efficiency. [Learn more.](#)

Canada Greener Homes Grant (Canada-wide)

The Canada Greener Homes Grant will help homeowners make their homes more energy-efficient, create new jobs across Canada for energy advisors, grow our domestic green supply chains, and fight climate change. [Learn more.](#)

Clean Energy Improvement Program (AB)

Receive support to develop Property Assessed Clean Energy (PACE) financing solutions for residential and commercial property owners in your municipality. [Learn more.](#)

Community Efficiency Financing (Canada-wide)

Administered by the Federation of Canadian Municipalities (FCM), provides funding to municipalities to support the planning, implementation and scaling up of home-energy upgrade financing programs for residential energy projects. [Learn more.](#)

Community Energy Solutions (PE)

Funding is available for expanding energy efficiency solutions to businesses, community centers, agricultural operations and more. These incentives help with energy efficiency advice and rebates so these organizations can be efficiency leaders in their community.

[Learn more.](#)

Community Opportunity Readiness (Canada-wide)

The Community Opportunity Readiness Program addresses the financial needs of Indigenous communities when they are in pursuit of, and wish to participate in, an economic opportunity. [Learn more.](#)

Community Readiness and Opportunities Planning (CROP)

CROP works to improve the economic development capacity of Indigenous communities and increase economic development in the three territories. It achieves this by providing financial support to First Nations, Inuit, Métis and non-status Indigenous communities so they can improve their capacity and prepare to plan for, pursue, and participate in economic opportunities. [Learn more.](#)

Disaster Mitigation and Adaptation Fund (Canada-wide)

The purpose of this fund is to invest in structural and natural infrastructure projects to increase the resilience of communities that are impacted by natural disasters triggered by climate change. [Learn more.](#)

The Environmental Trust Fund (NB)

Exclusive to the province of New Brunswick, the Environmental Trust Fund provides assistance for action-oriented projects with tangible, measurable results aimed at protecting, preserving and enhancing the Province's natural environment. [Learn more.](#)

First Nations Home EnergySave (BC)

The Fraser Basin Council is working with First Nations communities and support organizations to reduce energy use, share success stories, and build local capacity and economic development. [Learn more.](#)

First Nations Infrastructure Fund (Canada-wide)

The First Nation Infrastructure Fund (FNIF) helps First Nations communities upgrade and increase public infrastructure to improve the quality of life and the environment in First Nations communities. [Learn more.](#)

GHG Program for Buildings and Industry (NT)

The Government of the Northwest Territories' (GNWT) GHG Grant Program for Buildings and Industry is an application-based non-repayable grant program designed to support greenhouse gas (GHG) emissions reduction projects and initiatives for NWT businesses, industry and non-profit organizations. [Learn more.](#)

GHG Program for Governments (NT)

The Government of the Northwest Territories' (GNWT) GHG Grant Program for Government is an application based non-repayable grant program designed to support greenhouse gas (GHG) emissions reduction projects and initiatives for NWT community governments, municipalities, GNWT departments, and Indigenous governments (which includes band or tribal councils, land-claim organizations, development corporations and self-governments). [Learn more](#).

The Good Energy Program (YT)

The Good Energy Program offers rebates for energy-efficient upgrades done in commercial, institutional, and community buildings. [Learn more](#).

Green and Inclusive Community Buildings (Canada-wide)

The Green and Inclusive Community Buildings (GICB) program is a five-year program of \$1.5 billion that will support green and accessible retrofits, repairs or upgrades of existing public community buildings and the construction of new publicly-accessible community buildings that serve high-needs, underserved communities across Canada. [Learn more](#).

Green Municipal Fund (GMF) (Canada-wide)

The GMF helps local governments switch to sustainable practices faster. Their unique mix of funding, resources and training gives municipalities the tools they need to build resiliency — and create better lives for Canadians. [Learn more](#).

Inclusive Diversification and Economic Advancement in the North (IDEANorth) (Northern)

IDEANorth is administered by the Canadian Northern Economic Development Agency (CanNor), and promotes economic development in the North in order to strengthen territorial economies and increase economic participation by Northerners. [Learn more](#).

Indigenous Community Infrastructure Initiative (Canada-wide)

The Indigenous Community Infrastructure Initiative (ICII) is a new lending solution to accelerate Indigenous community infrastructure investments by providing low-cost and long-term loans to Indigenous projects across the CIB's priority sectors of: clean power, green infrastructure, public transit, broadband, and trade and transportation. [Learn more](#).

Innovative Communities Fund (Atlantic)

Through the ICF, the Atlantic Canada Opportunities Agency (ACOA) works with communities to find opportunities for growth. We invest in initiatives that lead to long-term employment and a stronger local economy. [Learn more](#).

Municipal Climate Resilience grant by INTACT (Canada-wide)

Intact Public Entities and the Intact Foundation have launched the Municipal Climate Resiliency Grant to help municipalities adapt to climate change and keep people safe. They have invested \$1 million in cities and towns across Canada that are developing practical and effective solutions to protect communities from floods or wildfires. [Learn more.](#)

Natural Infrastructure Fund (Canada-wide)

The Natural Infrastructure Fund will support projects that use natural or hybrid approaches to protect the natural environment, support healthy and resilient communities, contribute to economic growth, and improve access to nature for Canadians. [Learn more.](#)

Nova Scotia Power Net Metering Program (NS)

Nova Scotia Power customers can install a variety of renewable energy sourced generators such as a wind turbine or set of solar panels – or even a small hydro or biomass generator – to help power their home or business. [Learn more.](#)

Rental Construction Financing Initiative (Canada-wide)

CMHC rental construction financing provides low-cost funding to eligible borrowers during the riskiest phases of product development of rental apartments (construction through to stabilized operations). The minimum loan is \$1,000,000, and a maximum of up to 100% of the Loan to Cost (for the residential loan component). [Learn more.](#)

Reserve Lands and Environment Management Program (Northern)

The Reserve Land and Environmental Management Program provides funding to First Nations to develop the capacity to manage reserve land, resources and the environment. [Learn more.](#)

Residential Rehabilitation Assistance Program (RRAP) (Canada-wide)

Funding for major repairs to improve the health and safety of on-reserve affordable housing. [Learn more.](#)

The Seed Fund Program (Canada-wide)

The Seed Funding program of the Canadian Mortgage and Housing Corporation (CMHC) supports affordable housing through interest-free loans and/or non-repayable contributions. There are two funding streams: one for new construction/conversions, and one to preserve existing community housing projects. [Learn more.](#)