# MUNICIPAL CLIMATE ACTION LANDSCAPE

The Municipal Climate Action Landscape helps Alberta municipalities locate relevant climate change mitigation and adaptation resources.

# **FUNDING**

# **☆ MUNICIPAL**

### **Change Homes For Climate**

City of Edmonton education, resources, and residential rebates for installing solar PV and energy efficiency upgrades.

#### City of Edmonton - Environmental Financial Incentives

City of Edmonton financial incentives for building owners, businesses, and communities.

### **Town of Banff Environmental Rebates**

Commercial and residential rebates for energy efficiency and solar PV.

# A PROVINCIAL & REGIONAL

### Adaptation Resilience Training (ART) Program

Work placements for post-secondary students and recent graduates in climate adaptation.

# **Alberta Ecotrust Foundation**

Grants for work on protecting Alberta's natural environment; water, land use, & climate change. Centre for LC3 in Alberta.

### **Alberta Emerald Foundation**

Funding and awards for environmental excellence.

#### **Alberta Innovates**

Agency supporting research and business innovation, including commercialization.

# Clean Energy Improvement Program

Affordable residential and commercial financing for clean energy upgrades.

## **Community Conserve**

Funding for municipal environmental concerns.

#### **Emissions Reduction Alberta**

Funding for innovative technology solutions that reduce GHG emissions and home of the Energy Savings for Business funding program.

# Forest Resource Improvement Association of Alberta

Funding opportunities through the Forest Resource Improvement Association of Alberta.

#### Mobilizing Alberta Climate Action Grants

Grants for University of Calgary-affiliated awareness and climate action in Southern Alberta.

## Municipal Climate Change Action Centre

Funding for municipalities to save on energy costs, reduce emissions, and increase resilience.

# S NATIONAL & GLOBAL

# Agricultural Clean Technology Program

Supports the development and adoption of clean technology in agri-food.

Canada Community-Building Fund Funding for capital costs on public infrastructure

### Clean Energy for Rural and Remote Communities Program

Funding for renewable energy, energy efficiency measures, and capacity building in Indigenous, rural, and remote communities across Canada.

#### **Environment and Climate Change Canada**

Funding for climate action, green infrastructure, public transit, clean technology.

#### **Federation of Canadian Municipalities**

Funding opportunities for Canadian municipalities through the Green Municipal Fund.

### **Natural Climate Solutions Fund**

Supports nature-based climate solutions, including the 2 Billion Trees program.

#### **Natural Resources Canada**

Funding for innovation in the clean economy, including the Canada Greener Homes Initiative.

#### **Tree Canada**

Grants for carbon offsetting opportunities related to tree planting.

# TOOLS

# 1 MUNICIPAL

#### **Climate Resilient Home**

Helps homeowners understand their home's climate risks and invest in climate resiliency.

#### **Edmonton's Home Energy Map**

Interactive map of Edmonton shows EnerGuide ratings of homes.

#### Solar Potential Map – Calgary

Interactive map of Calgary shows solar potential of buildings.

#### **The Home Energy Toolkit**

Edmonton Public Library toolkit enables homeowners to improve energy efficiency and save on energy costs.

# A PROVINCIAL & REGIONAL

# **Alberta Climate Information Services**

Weather forecasts and climate data for producers, farm consultants, and researchers.

#### **Alberta Climate Records**

Historical climate data, indices, and projections of climate change.

#### Alberta Energy Policy Simulator (Pembina Institute)

Visualize the effect of policies on Alberta's carbon pollution and energy trajectory.

#### **Alberta Narratives Project**

How to have bridge-building conversations about climate change and energy.

#### Alberta Solar Calculator

Evaluate cost implications of developing gridconnected solar PV projects.

#### **Alberta Utilities Commission**

Map of proposed, approved and in-service wind and solar facilities.

# TOOLS

# A PROVINCIAL & REGIONAL cont.

#### **Climate Resilience Express**

How to prepare a municipal climate action plan.

Design Our Climate Simulation (King's University)

Explore ways to reduce GHG emissions.

# **Electric Vehicles Savings Calculator**

Compare costs and emissions of gasolinepowered passenger vehicles with electric vehicles.

#### **Energy Efficiency Building Codes (Alberta)**

Requirements for energy efficiency in buildings and housing.

#### Carbon Offset Emissions Factors Handbook (Alberta)

List of emissions factors used for GHG reduction quantifications.

#### **MyHeat**

Maps of Alberta cities, showing actual heat loss from homes, to encourage energy efficiency.

#### **Solar Friendly Municipalities Toolkit**

Learn about installing solar PV on municipal facilities, solar PV investment, and engagement.

# **INDUSTRY ASSOCIATIONS**

# **MUNICIPAL**

#### **Young Professionals in Energy**

Forums for networking and career development in Calgary and Edmonton.

# A PROVINCIAL & REGIONAL

### Alberta Energy Efficiency Alliance

Resources, networking, & events to reduce barriers to energy efficiency adoption.

#### **Alberta Environmental Network**

Network for Albertans and organizations protecting Alberta's environment.

### Association of Energy Engineers Alberta Chapter

Networking, resources, certifications, technical journals for energy industry professionals.

#### **Electric Vehicle Association of Alberta**

Non-profit, citizen-lead group to promote adoption of EVs in Alberta.

#### **Environmental Services Association of Alberta**

Networking, member directory, and conferences for the environment industry.

#### **Recycling Council of Alberta**

Promoting, facilitating, and advocating for waste reduction and resource conservation.

### Smart Sustainable Resilient Infrastructure Association

Funding and support for technological innovation in reducing building GHG emissions.

# S NATIONAL & GLOBAL

### **BC Climate Action Toolkit**

Tools, best practices, and more for BC local governments.

#### **Energy Star**

Certification for energy efficiency in products, homes, buildings, and industrial operations.

**Energy Star Portfolio Manager (NRCan)** Monitor, rate, and optimize a building's energy use.

# Federation of Canadian Municipalities Climate Change Toolkits

Integrate climate considerations in municipal governance and operations.

# GoodWork.ca

Job board for environmental professionals, job seekers, and volunteers.

#### **Green Globes**

Online green building rating and certification tool for new construction and retrofits.

#### **Greenhouse Gas Equivalencies Calculator**

Translate abstract GHG or energy measurements into relatable metrics.

# Solar Alberta

Education, advocacy, events, and resources for the solar industry in Alberta.

### S NATIONAL & GLOBAL

Association of Energy Services Professionals Training, networking, and support for works in energy efficiency, demand-side management.

#### **Canada Green Building Council**

Advocacy for green building industry. License holder for LEED certification system in Canada.

#### Canadian Association of Consulting Energy Advisors

Association for EnerGuide Energy Advisors registered by Natural Resources Canada.

#### **Canadian Biogas Association**

Advocacy for the biogas industry in Canada.

### **Canadian Geothermal Energy Association**

Research, policy work, events, and the voice of the geothermal energy industry in Canada.

#### **Canadian Institute for Energy Training**

Energy management and energy efficiency training and certification programs.

#### **Canadian Renewable Energy Association**

Education, networking, research, advocacy, and public engagement in support of the wind energy, solar energy, and energy storage industries.

### **Map of Adadptation Actions**

An interactive map of communities and sectors across Canada adapting to climate change

#### **PVWatts Calculator**

Online tool to estimate the energy production and cost of grid-tied solar PV.

#### RETScreen

Software for energy efficiency, renewable energy, and cogeneration project feasibility and performance analysis.

#### System Advisor Model (SAM)

Free techno-economic modelling for renewable energy projects.

#### Working with Nature Toolkit (Miistakis Institute)

Catalogue natural infrastructure and develop land use plans for mitigating flood & drought.

To recommend an additional resource, please email contact@mccac.ca or visit mccac.ca/learning-centre.

#### **Canadian Urban Sustainability Practitioners**

Connects and supports sustainability practitioners from Canada's leading cities.

#### Climate Action Network / Réseau Action Climat

Coalition of Canadian climate, environmental and energy organizations providing advocacy, resources, and workshops for climate solutions.

### **Climate Caucus**

A non-partisan network of elected local officials organizing collectively for climate policy.

### **Climate Proof Canada**

Coalition of insurance, municipalities, Indigenous organizations, and environmental and research organizations calling for climate adaptation.

#### **Decentralized Energy Canada**

Programs, networking, training, and education on decentralized energy.

#### **Efficiency Canada**

Research and advocacy for energy efficiency. Writes the Canadian Energy Efficiency Scorecard.

#### **Energy Services Association of Canada**

Advocacy for energy efficiency, renewable energy, and infrastructure renewal.

#### **Passive House Canada**

Advocacy and education for the Passive House performance building standard.

#### Women in Renewable Energy

Capacity building, networking, events, and awards for women in the renewable energy sector.

# **EDUCATION AND RESOURCES**

# **MUNICIPAL**

#### **Biosphere Institute of the Bow Valley**

Education, research, resources, and community engagement for action on human-wildlife coexistence and climate change in the Bow Valley.

#### **Bow Valley Climate Action**

Education, resources, and advocacy to promote citizen engagement to reduce GHGs in the Bow Valley.

#### **Calgary's Climate Program**

Information, resources, and events for Calgary to minimize and prepare for risks from climate change.

#### **Change for Climate (Edmonton)**

Stories, actions, education, tools, and programs encouraging action on climate change.

#### **City of Edmonton Environmental Programs**

At a glance view of City of Edmonton programs, funding opportunities, and tools for homes, organizations and buildings, and public education.

#### **Eco-Solar Home Tour Society**

Free annual tours in Calgary, Edmonton, & Lethbridge to solar-powered and net-zero homes and buildings.

#### **Environment Lethbridge**

Information, events, and programs encouraging local action on climate change.

#### **Green Leagues (Edmonton)**

Workshops, resources, and support for Edmonton Community Leagues to lead energy efficiency and renewable energy projects.

### Southern Alberta Alternative Energy Partnership

Research and advocacy to encourage investment and growth in alternative energy development in Southern Alberta.

# A PROVINCIAL & REGIONAL

#### Alberta Centre for Sustainable Rural Communities

Research, education, and outreach centred around resilient and sustainable rural communities and livelihoods

#### **Alberta Ecotrust Foundation**

Alberta Ecotrust is a long-standing and critical source of funding, training, and skill building for Alberta's environmental community.

#### Alberta's Climate Future: Final Report 2019

A 2019 report authored by Katharine Hayhoe and Anne Stoner discussing observed changes and long term climate trends for Alberta.

#### **All One Sky Foundation**

Education, research, and programs for vulnerable populations focusing on climate change and energy poverty.

#### Biodiversity Management & Climate Change Adaptation

Resources, projects, and tools to support the management of Alberta's biodiversity in a changing climate.

# Canadian Parks and Wilderness Society of Northern Alberta

Information, resources, and presentations focused on the protection of natural ecosystems as a means of climate change mitigation and adaptation.

#### **Carbon Copy**

ERA's podcast about the technology, engineering, and economics of a low carbon economy

#### ClimateWest

A central hub for climate services in Manitoba, Saskatchewan, and Alberta providing access to regionally relevant climate information and the support to use it effectively in planning and decision making.

#### **Ducks Unlimited**

Alberta Education, programs, research, and advocacy for wetland conservation and restoration.

#### **Energy Futures Lab**

Collaboration, workshops, education, and resources focused on building the future energy system of Alberta.

#### **Environmental Law Centre**

Education, legal research, analysis, advice, and services for protection of the environment.

#### **Green Energy Futures**

Multi-media storytelling project, including a podcast, documenting the clean energy transition in homes, businesses, and communities.

# Iron & Earth

Training, advocacy, support for oil & gas workers transitioning into renewable energy.

#### **Just Powers**

A University of Alberta research initiative with a catalogue of resources and research projects focused on climate justice and a just energy transition.

#### **Municipal Climate Change Action Centre**

Funding, education, and advisory services for Alberta municipalities working to save money by reducing their GHG emissions. Administrator of the Clean Energy Improvement Program.

#### **Pembina Institute**

Research, analysis, and recommendations to inform policies and practices related to energy.

#### **Prairie Adaptation Research Collaborative**

PARC is a climate change research centre at the University of Regina.

#### Prairie Provinces; Chapter 4 in Canada in a Changing Climate: Regional Perspectives Report

A report on climate adaptation and resiliency in Alberta, Saskatchewan, and Manitoba.

#### **Recycling Council of Alberta**

Promoting, facilitating, and advocating for waste reduction and resource conservation

# **Regeneration Learning Society**

Education and outreach for justice-centred climate action in Alberta. Home of the Climate Leadership Program and the Energy Depot.

#### **Rural Routes to Climate Solutions**

Workshops, events, podcast, and resources supporting rural action on climate change.

#### The Bow Valley Eco Directory

A directory of organizations in the Bow Valley advocating for conservation, green energy, and climate action.

#### **The Resilience Institute**

A registered charity sharing resouces and facilitating climate adaptation initiatives with partner communities.

#### University of Calgary School of Public Policy Paper Series

Latest research on trends in environment, energy, and policy from the University of Calgary

# S NATIONAL & GLOBAL

#### **Arena Guide**

Arena Guide's Ideas and Suggestions to Help Rinks Reduce Their Footprint.

#### **Biological Carbon Canada**

Focused on carbon reductions in farming, ranching, and forestry.

#### **Business Renewables Centre (Canada)**

Marketplace where corporations and institutions can learn how to buy renewable energy directly from developers.

#### **Canada's Changing Climate Report**

Canada in a Changing Climate: Advancing our Knowledge for Action is the national assessment of how and why Canada's climate is changing; the impacts of these changes on our communities, environment, and economy; and how we are adapting.

#### **Canada's National Adaptation Strategy**

Materials related to the development of Canada's first National Adaptation Strategy

#### **Canadian Centre for Climate Services**

Services, information, capacity building, and training to support the Pan-Canadian Framework on Clean Growth and Climate Change.

#### **Canadian Institute for Climate Choices**

Research, reports, and recommendations on best practice climate policies. Arm's length federal organization.

# **EDUCATION AND RESOURCES cont.**

# S NATIONAL & GLOBAL cont.

# Canadian Institute for Energy Training

Energy management and energy efficiency training and certification programs.

#### **Canadian Parks and Wilderness Society**

Information, resources, and presentations focused on the protection of natural ecosystems as a means of climate change mitigation and adaptation.

#### **Canadian Passive House Institute**

Non-profit providing education and training in Passive House design and construction.

#### **City Climate Planner (International)**

Program to train municipal staff and partners in GHG inventories, climate action and adaptation planning.

### **Clean Energy Canada**

Research, stories, and funding focused on Canada's clean energy transition.

#### **Climate Action for Museums Toolkit**

A resource focused on the role of museums and the cultural sector in climate action and public education.

### Climate Atlas (Canada)

Data, maps, and resources about national, regional, and local climate impacts.

### **Climate Central (USA)**

Research and reporting on the science and impact of climate change.

### Climate Outreach (UK)

Bridging the gap between research and practice through communications & engagement.

### **Climate Registry**

Programs, tools, resources to assist in measuring, reporting, and verifying carbon and GHG emissions in operations.

# Climate Risk Institute (Canada)

Research, advisory services, planning, assessments, outreach, and project management focused on climate change adaptation.

### CLIMAtlantic

Local climate data and information to enhance climate adaptation in Atlantic Canada.

#### **Community Climate Hub (Canada)**

Tools, resources, data, and connection space for local Canadian climate initiatives.

### Community Energy Association (BC)

Support for local governments developing  $\&\$  implementing climate action plans.

The Municipal Climate Change Action Centre provides funding, technical expertise, and education to municipalities, schools, non-profits and community organizations.

#### **ECO Canada**

Training, certification, & job board for Canadian environmental professionals.

#### **Environment and Climate Change Canada**

Federal Government department - funding, policy, resources, and education.

#### Federation of Canadian Municipalities

Advocacy, resources, tools, funding (Green Municipal Fund), and awards for Canadian municipalities.

#### **FireSmart Canada**

Resources, funding, and programs to increase resilience to wildfire.

# **Global Covenant of Mayors for Climate & Energy**

Global network of mayors committed to local climate action.

# **Green Economy Canada**

A national non-profit dedicated to the transition towards net-zero.

#### **ICLEI - Local Governments for Sustainability**

Connects, funds, and advocates for local, regional, national, and global sustainable urban development.

#### **Insurance Bureau of Canada**

Studies, reports, and resources on the economic impacts of climate change.

### Intact Centre on Climate Adaptation

Research, resources, and initiatives to identify and reduce the impacts of climate change in Canada.

#### International Living Future Institute

Education, certification, and programs focused on ecologically minded buildings, products, and communities. Home to the Living Building Challenge & Zero Energy Certifications.

#### International Panel on Climate Change

United Nations body for assessing the science related to climate change - reports, information, working groups, task forces.

# Investing in Canada's future: The cost of climate adaptation

As part of the Federation of Canadian Municipalities' Resource LIbrary, this report outlines the cost of inaction of climate change adaptation.

#### LC3 - Low Carbon Cities Canada (partnership between cities and FCM, with seven regional Centres)

Investments, grants, and demonstration projects to lower regional emissions through energy efficiency, renewable energy, and transportation solutions.

A partnership of:

Alberta

Municipalities

Strength In Members

#### Miistakis Institute (Canada)

Research, analysis, tools, and resources to engage communities in conservation efforts.

#### **MIT Energy Initiative**

Hub for low and no carbon energy research, education, and outreach.

#### **Municipal Natural Assets Initiative**

Resources, tools, and support to identify, value, and account for natural assets in financial planning, asset management, and sustainable and climate resilient infrastructure.

# Pan-Canadian Framework on Clean Growth and Climate Change

A Canada-wide plan to meet 2030 emissions reduction targets.

# Partners for Climate Protection Program (ICLEI & FCM)

Network, support, and milestone framework to help Canadian municipalities take action on climate change.

#### Prairie Climate Centre (Canada)

Data, reports, maps, videos & other resources to inspire citizen participation in climate action.

#### **Project Drawdown**

Research, education, and action guides focusing on the most viable global climate solutions.

# **QUEST Canada**

A national non-profit that provides resources and advisory services in the areas of community energy and resilience to support communities on the path to net zero.

# Sendai Framework for Disaster Risk Reduction 2015-2030

A report from the United Nations Office for Disaster Risk Reduction outlining targets and priorities for preventing new and reducing existing disaster risks.

#### **Smart Prosperity Institute**

National research network and policy think-tank for practical policies and market solutions for a stronger, cleaner economy.

#### The Narwhal (Canada)

MA Alberta

Independent investigative journalism focused on stories about Canada's natural world.

#### University of Alberta - Future Energy Systems

Cross-faculty research, resources, and events focused on helping Canada transition to a low netcarbon energy economy.