

Climate Change Unit

Nova Scotia Environment focuses on climate change, protecting our environment and advancing ambitious environmental goals in the province. They protect the environment, human and animal health through regulatory excellence, conservation, partnership and promotion. The goal is to educate, inspect and enforce to ensure compliance with regulations and legislation.

The Climate Change Unit strives to develop and enforce regulations and policies based on scientific knowledge and expertise that helps Nova Scotia mitigate and adapt to the effects of a changing climate.

Climate Change in Nova Scotia

The effects of climate change are already visible in Canada and around the world. In Nova Scotia, climate change is expected to bring warmer average temperatures, higher sea levels, more extreme rainfalls, flooding, and more frequent and extreme storms. These changes will have many impacts in Nova Scotia, affecting fresh water resources, coastline infrastructure and businesses throughout the province.

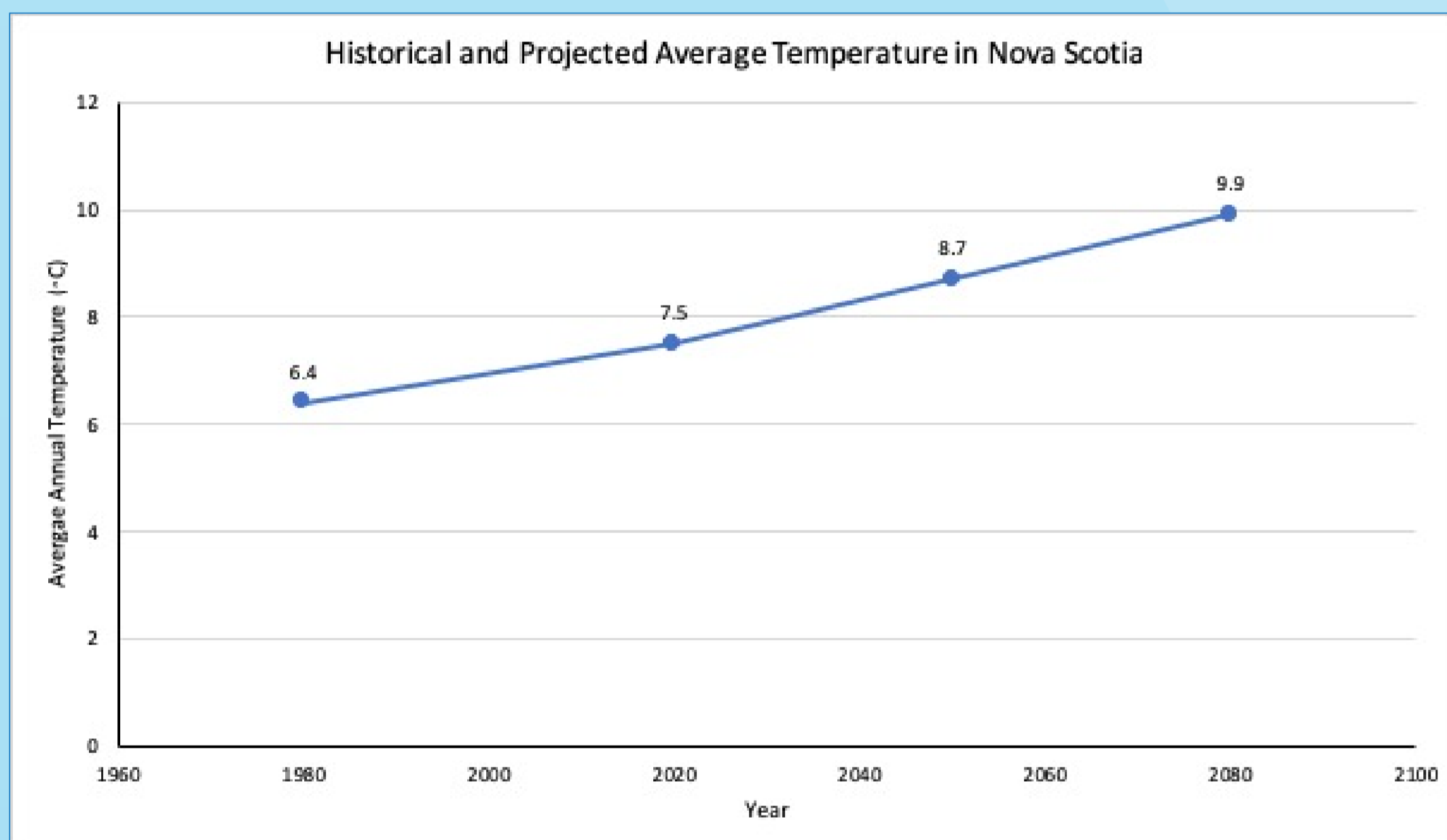


Figure 1: Trends in annual temperatures across Canada from 1980 to 2080

Nova Scotia is expected to be disproportionately affected by sea level rise then in other parts of Canada.

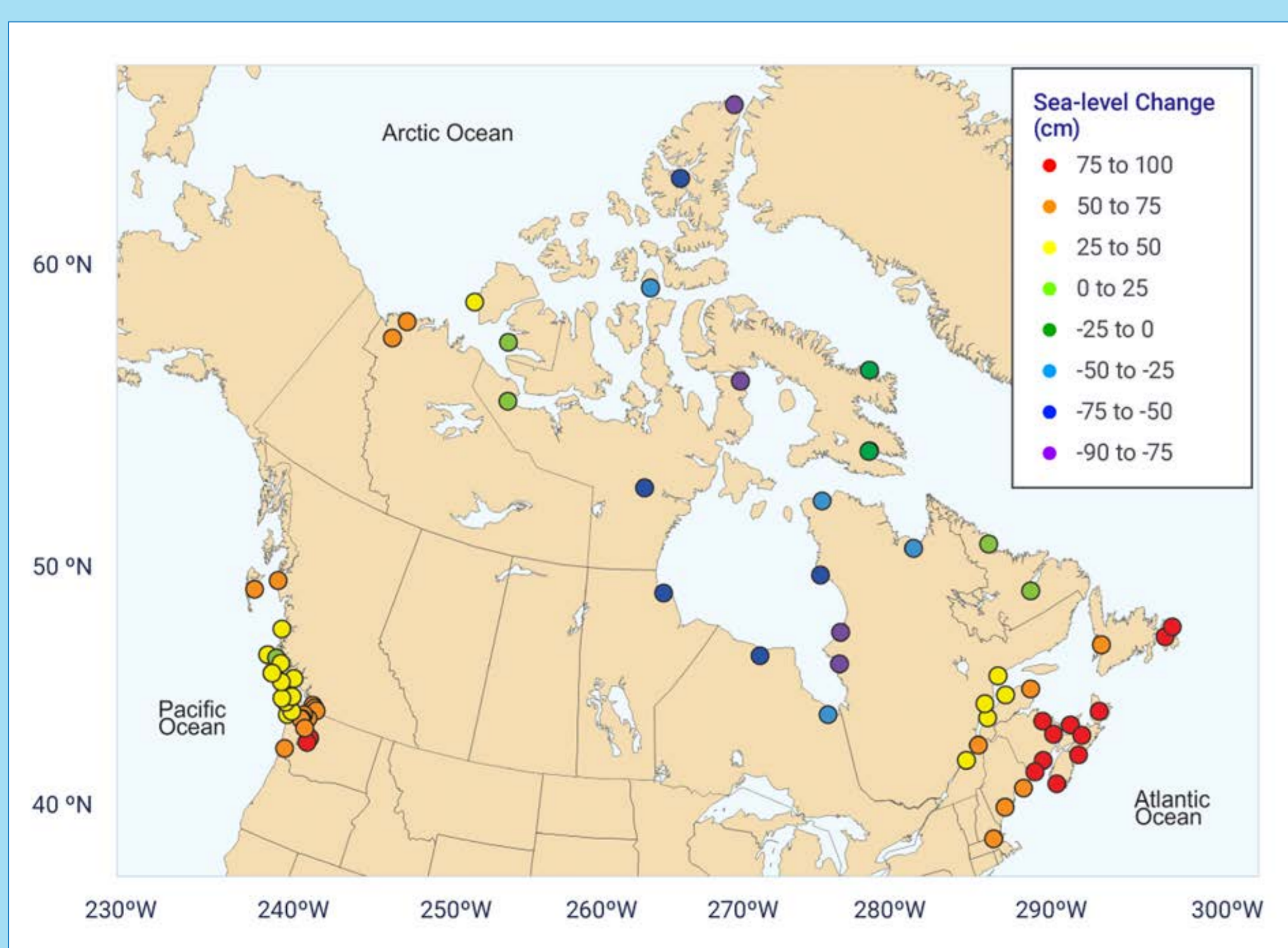


Figure 2: Projected relative sea-level change along Canadian coastlines by 2100.

Nova Scotia Emissions

Nova Scotia is a national leader in climate change action. Emissions reductions in the province reached 31% below 2005 levels in 2017, surpassing the 2030 30% federal target. As a result, Nova Scotia released a new emission target of 45-50% below 2005 levels by 2030.

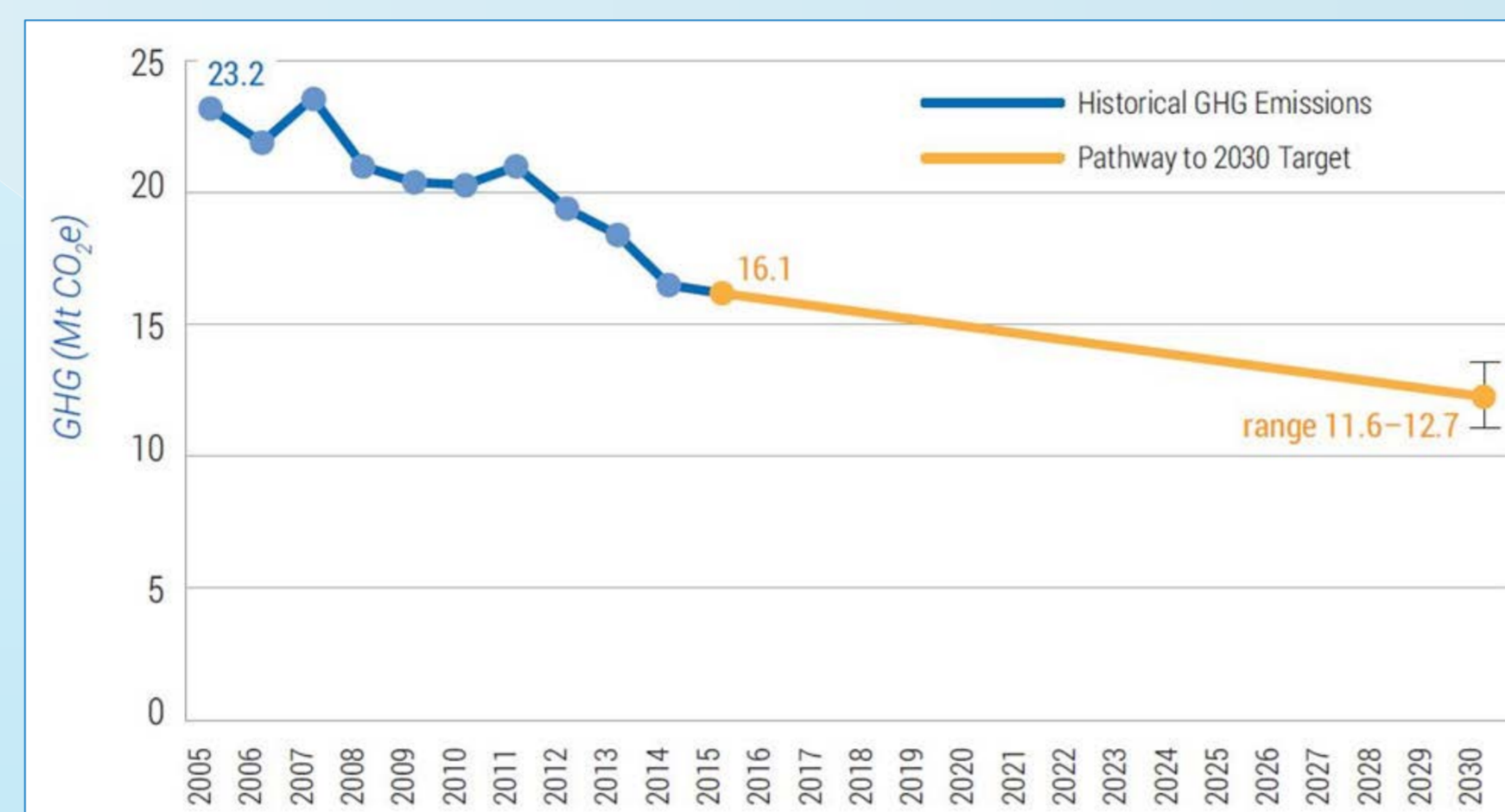


Figure 3: Nova Scotia historical and projected greenhouse gas emissions.

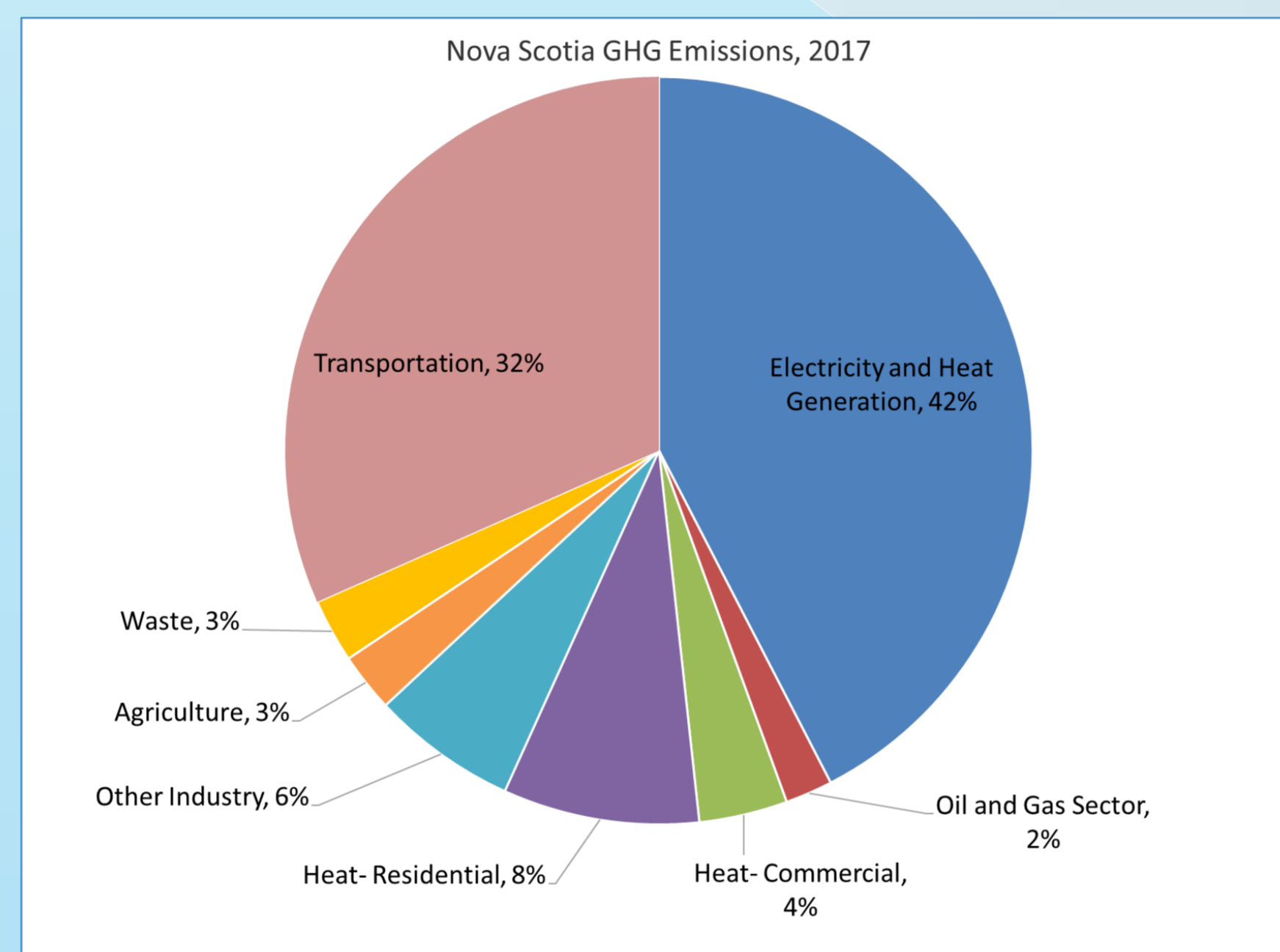


Figure 4: Nova Scotia greenhouse gas emissions inventory

Cap-and-Trade Program

Nova Scotia's cap-and-trade program establishes a total cap on provincial GHG emissions. The program launched in January 2019 and currently has 26 companies registered in the program, covering about 80% of all GHG emissions in the province.

The program is expected to reduce GHG emissions by at least 650,000 tonnes in first compliance period (2019-2022). Auction proceeds will be placed into the Green Fund starting with the first auction, planned for Spring 2020.



Internship Projects

Green Fund

Engaged with the majority of provincial government departments to gather information on programs and/or projects relating to climate change.

Developed survey template to be distributed across departments.

Coordinated and led meetings with each department to discuss survey components and responses.

Public Expenditure on Climate Change

Conducted preliminary research on methodology for quantifying government spending on provincial climate change initiatives. Research will be used to:

1. Assess the status of provincial responses to climate change and its linkages to public expenditures
2. Inform decision-makers by mapping the linkages between vulnerable areas and climate responses.

Climate Change Progress Update

Conducted jurisdictional scan to identify the climate reporting practices of other provinces in Canada.

Contributed to the development of Nova Scotia's next climate change progress update.

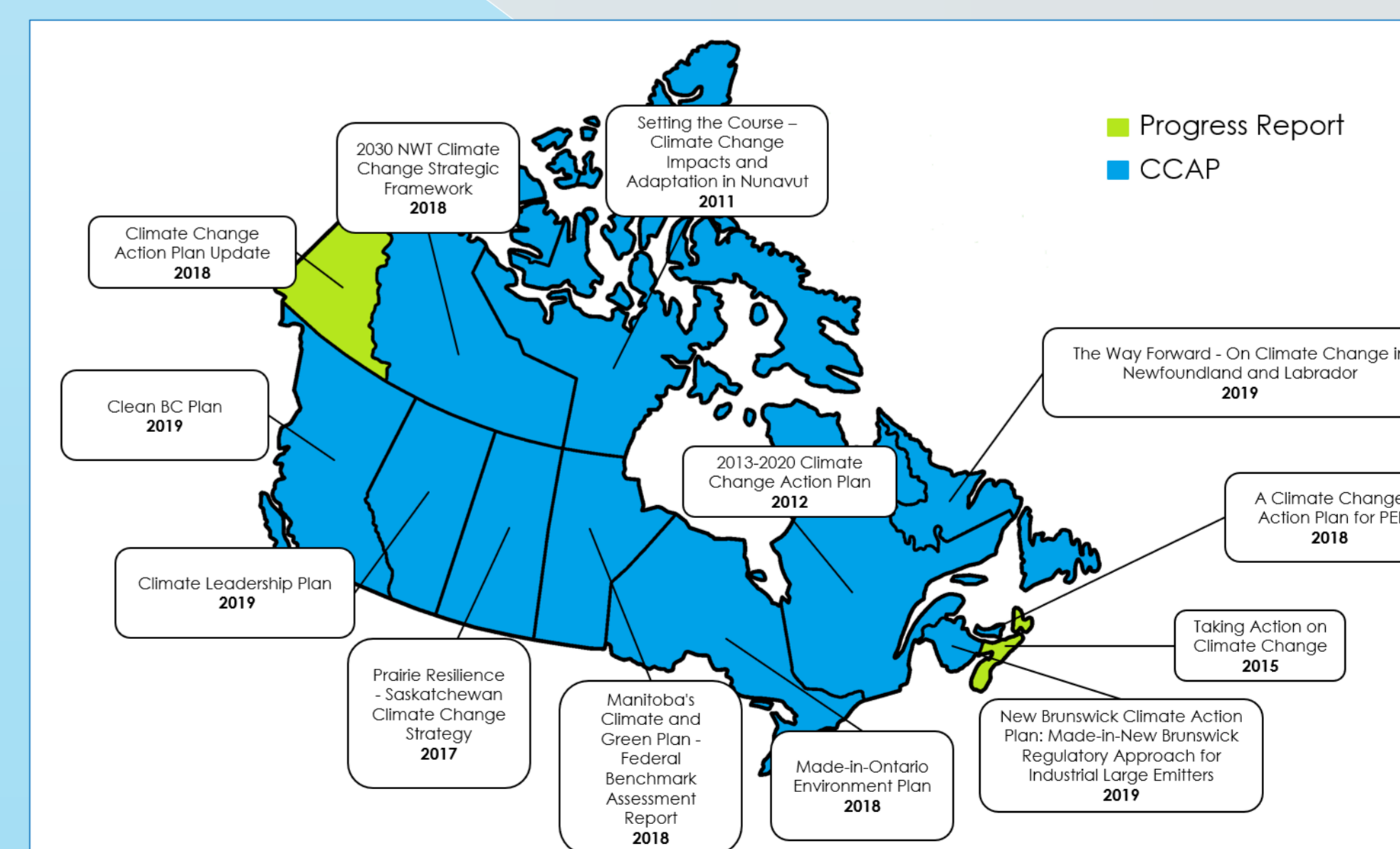


Figure 5: Release date and title for latest Climate Change Action Plan (CCAP) or Progress Update document released by each province and territory.

Government Leadership

Completed an independent project focusing on government leadership strategies and best practices for environmental leadership.

Developed three recommendations for greening the government of Nova Scotia. These include:

1. Establishing a greenhouse gas inventory
2. Cutting emissions from buildings and fleets
3. Scaling up green procurement

Opportunities

Clean Leadership

Attended leadership training conferences focused for students and graduates to gain skills and experience in the clean sector by learning and interacting with professionals from businesses, organizations, and government agencies.

A to B Conference

Attended an event that aimed to connect individuals and organizations from across sectors to generate ideas and to imagine a more sustainable province by bringing together dynamic, leading experts and local stakeholders to tackle challenges and discuss solutions.

Senior Leadership Briefing

Co-delivered presentation to the Minister and Deputy Minister of the Environment outlining various project approach options.

Provincial and Territory Calls

Built network with other jurisdictions across Canada through the exchange of informal updates of progress regarding the provinces and territories current priorities and direction on climate change action.

Canada's Changing Climate Webinar

Participated in webinars hosted by leading scientists who communicated in detail the science behind the findings of Canada's Changing Climate Report.

Cap-and-Trade Simulation Exercise

Gained a better understanding of greenhouse gas emissions trading systems by participating in a carbon market simulation (CarbonSim). Explored different options for participants to comply with emissions regulations, including participating in auctions, buying carbon offsets and trading with other participants.

Key Lessons

- Jurisdictional scan methodology of climate action plans, progress reports and policies
- Climate policy structure and process
- Emissions trading systems and its components (i.e. greenhouse gas emission reporting and online system)
- Government writing skills
- Presentation and engagement
- Project management
- Qualitative and quantitative data management