ENGINEERS &
GEOSCIENTISTS
BRITISH COLUMBIA

CLIMATE CHANGE ACTION PLAN

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PREAMBLE

This document was developed and authored by Engineers and Geoscientists BC's Climate Action Plan Steering Group (CAPSG), comprising representatives from the organization's Climate Change Advisory Group and Sustainability Advisory Group, with the support of consultants with expertise in climate action and stakeholder engagement. The CAPSG was tasked with building the organization's first-ever Climate Change Action Plan in order to guide Engineers and Geoscientists BC in responding to climate change issues proactively and to better support its registrants in implementing climate change considerations in their work.

Engineers and Geoscientists BC sincerely thanks the members of the CAPSG for their ongoing commitment, expertise, and dedication to advancing the organization's efforts to address climate change considerations in the practice of professional engineering and professional geoscience in BC.

INTRODUCTION

Earth's climate is changing at an unprecedented rate. Multiple lines of evidence show that emissions of greenhouse gases from human activities — in particular, carbon dioxide and methane — are the primary driver of this trend.[i] Climate change is not a future problem; action is needed now, and every passing day matters.

Professional engineers and professional geoscientists (Engineers and Geoscientists BC registrants) can play a key role in addressing the challenges and risks of climate change. In addition, many organizations and clients are setting climate change related objectives that may intersect with a registrant's practice and need to be considered. The responsibilities for registrants to consider climate change in their practice have been articulated in two position papers approved by Engineers and Geoscientists BC's Council. The responsibilities are as follows:

- registrants are expected to keep themselves informed about the changing climate and consider potential impacts on their professional activities;[ii] and,
- registrants have the potential to influence greenhouse gas emissions through their professional activities and are expected to consider the impact of their work on the climate.[iii]

This Climate Change Action Plan (the "Plan") sets out a strategy for Engineers and Geoscientists BC to support registrants in fulfilling their professional responsibilities and meeting the requirements of clients and project owners to consider climate change. The Plan provides direction and commitment to key priority action areas that will be implemented in a phased approach. Progress will be evaluated on an annual basis and the Plan will be reviewed and updated in three years.

Over the past decade, Engineers and Geoscientists BC has led and supported many initiatives that have advanced its ability to address climate change in engineering and geoscience practice, including funding dedicated staff resources, developing practice guidelines on both adapting to climate change and reducing greenhouse gas emissions, establishing the Climate Change Information Portal, engaging standard-setting bodies, and improving continuing education offerings related to climate change. This Plan builds on those previous efforts, providing direction and a clearer mandate for how Engineers and Geoscientists BC will be proactive in response to climate change. Through this Plan, Engineers and Geoscientists BC commits to support its registrants with the tools and information they need to address climate change in their work and collaborate with others to ensure meaningful progress is made.

CLIMATE CHANGE ACTION PLAN

Engineers and Geoscientists BC is the regulatory and licensing body for the engineering and geoscience professions in British Columbia. To protect the public, we maintain robust standards of entry to the professions and comprehensive regulatory tools to support engineers and geoscientists in meeting their professional and ethical obligations.

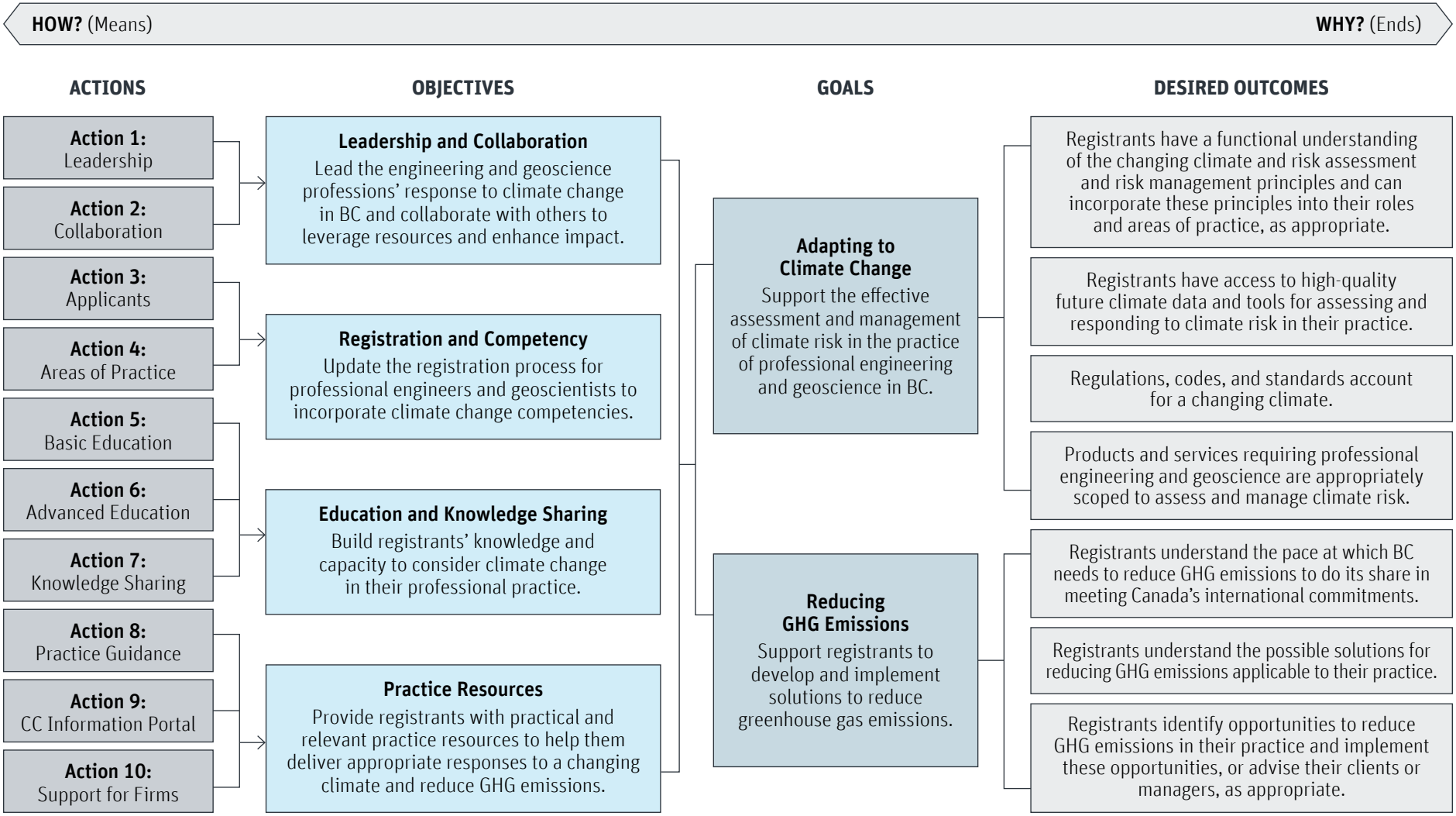
PLAN DEVELOPMENT

At the 2018 Annual General Meeting, a motion was brought forward to Engineers and Geoscientists BC Council to consider undertaking and putting the necessary resources into the development of a comprehensive action plan that would address the issue of a changing climate. Engineers and Geoscientists BC led the development of the Plan with advice and input from its Climate Change Advisory Group, Sustainability Advisory Group, and Divisions.

To develop the Plan, Engineers and Geoscientists BC sought feedback from registrants, stakeholders, and the wider professional community on how it should approach climate change issues related to the practice of professional engineering and geoscience. To support the development of the Plan, a discussion paper was published to provide an overview of Engineers and Geoscientists BC's current and proposed initiatives with respect to climate change. The Pacific Institute for Climate Solutions (PICS) provided funding to hire a student to support Engineers and Geoscientists BC engagement and Plan development. Input was solicited on the discussion paper through a variety of methods, including written submissions, webinars, focus groups and one-on-one meetings. We heard widespread support for Engineers and Geoscientists BC to take action, and in particular for improved access to education and guidance on climate change. Registrants asked for education and guidance that is specific and relevant to professional practice, considers climate risks (i.e. likelihood and consequences), and recognizes that climate change is one of many considerations relevant to professional practice. A summary of the input received is provided in the What We Heard report available on our website.

PLAN STRUCTURE AND OVERVIEW

The Plan is structured around a set of goals, objectives, desired outcomes, and actions. The **goals** provide strategic direction and articulate Engineers and Geoscientists BC's role with respect to climate change. The **objectives** describe the key tools or "means" that Engineers and Geoscientists BC will use to fulfill these goals. By fulfilling the goals and objectives in this Plan, Engineers and Geoscientists BC hopes to contribute to achieving the **desired outcomes** or "ends" which will be used to evaluate progress and update the Plan as needed to improve results. The ten **actions** are the priority activities that Engineers and Geoscientists BC commits to implement in a phased approach.



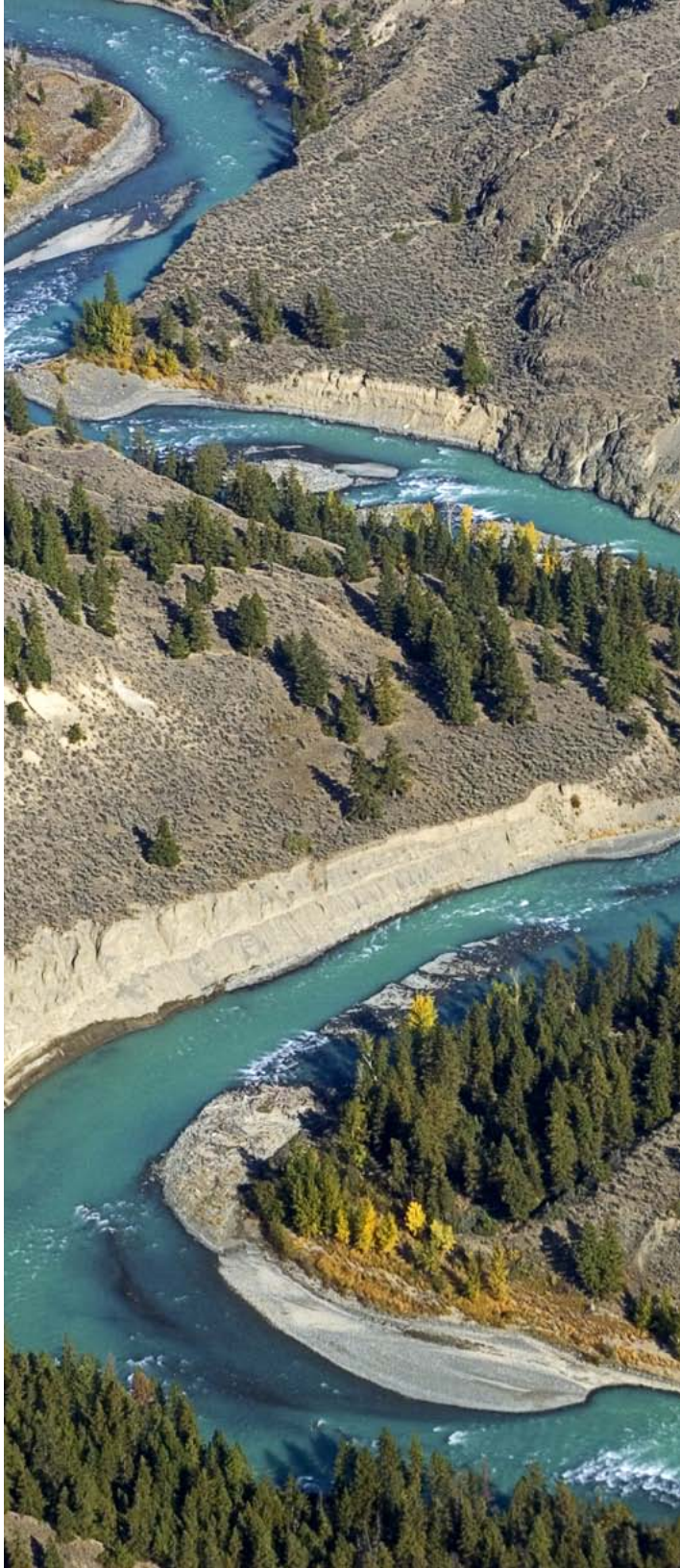
Note: "GHG" = greenhouse gas "CC" = climate change

CLIMATE GOALS

Two complementary climate goals provide strategic direction and articulate Engineers and Geoscientists BC's role with respect to climate change.

ENGINEERS AND GEOSCIENTISTS BC'S CLIMATE GOALS
ADAPTING TO CLIMATE CHANGE Support the effective assessment and management of climate risk in the practice of professional engineering and geoscience in BC.
REDUCING GREENHOUSE GAS EMISSIONS Support registrants to develop and implement solutions to reduce greenhouse gas emissions.

Adapting to climate change and reducing greenhouse gas emissions are two distinct but interconnected components of taking climate action. We must focus on both, as we know that the climate is already changing and that global average temperatures will continue to increase with increasingly severe impacts if we do not reduce greenhouse gas emissions. In fact, because adapting to climate change and reducing greenhouse gas emissions are not mutually exclusive, many actions that address one will have an influence on the other. Registrants are encouraged to strive for win-win solutions that will both increase resiliency to climate change hazards and reduce emissions that cause climate change. It is also important to recognize that reducing greenhouse gas emissions and nature-based solutions can have immediate benefits to air quality, human health, and the environment.[iv]



GOAL: SUPPORT THE EFFECTIVE ASSESSMENT AND MANAGEMENT OF CLIMATE RISK IN THE PRACTICE OF PROFESSIONAL ENGINEERING AND GEOSCIENCE IN BRITISH COLUMBIA

BRITISH COLUMBIA'S CLIMATE IS CHANGING

Globally, human activities are estimated to have caused approximately 1.0°C of global warming, i.e. global average surface temperature increase relative to the pre-industrial (1850-1900) average. This increase will likely reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.[v]

Nationally, Canada's climate has warmed and will continue to warm, due to human activity – at around twice the rate of the global average and triple in the north – with the effects of this warming projected to intensify in the future.[vi]

In British Columbia, summers are becoming hotter, longer, and drier, winters are becoming warmer and wetter, sea levels are rising, and variable and extreme weather is becoming more frequent and longer lasting. This is leading to increased risks of severe wildfires, seasonal and long-term water shortages, heat waves, glacier mass loss, invasive species, saltwater intrusion, loss of forest resources, flooding, storm surge and extreme precipitation and landslides.[vii]

EFFECTIVE MANAGEMENT OF CLIMATE RISK IN PROFESSIONAL PRACTICE

Given a rapidly changing climate, it is no longer appropriate to base engineering and geoscience practice solely on historical climate data and methods. Managing climate risk means considering the current and projected changes in climate and the associated consequences and uncertainties of those changes. Registrants are encouraged to explore solutions that seek to minimize exposure to current and future risks and at the same time do not further increase greenhouse gas emissions.

Effective consideration of climate risk often requires an interdisciplinary approach. Inputs may come from science, Indigenous knowledge systems, policy, technology, end-users, and other sources. For instance, a transportation engineering team may need to consider how the hydrology of rivers is changing. A critical infrastructure team may need to respectfully work with Indigenous knowledge holders to incorporate the local understanding of floods, while also considering whether flood construction levels are based on the latest climate data. Geoscientists may need to consider changing risks of landslides with more severe rain events, and how that may change following a wildfire. A building engineering team may need to consider more extreme summer temperatures that last longer and the associated risks of overheating and poor air quality from wildfire smoke. Mining sector professionals may need to assess the vulnerability of infrastructure and associated structures like tailings ponds to extreme weather events and review site closure practices with an eye on carbon sequestration in view of such vulnerabilities. Registrants in the water sector may need to design treatment works with greater strength and flexibility to withstand more severe droughts and floods.

Regulations, codes, and standards are being updated to include climate change considerations. In the meantime, and in recognition that climate change is predominantly a modifier of existing risks that can reasonably be anticipated, registrants whose practice areas are impacted by climate change are expected to consider historic, current, and projected future climate data and use risk-based approaches or other appropriate methods to address climate change.

The law relating to professional liability for ignoring climate change is evolving. For registrants to satisfy their professional obligations and minimize their professional liability exposure, it is critical that they stay up to date with changes to statutory and regulatory requirements related to their areas of practice, and that they appropriately apply risk management principles in addressing public safety and environmental concerns.

A widespread effort is required to manage climate risks, which vary by region, sector, asset type and project. Registrants have a responsibility to understand how a changing climate may impact their professional practice and collaborate with others as necessary to manage the associated risks. This Plan will support registrants in fulfilling these and other responsibilities with respect to climate change.

> The United Nations describes local and Indigenous Knowledge as the understandings, skills and philosophies developed by Indigenous nations with long histories of interaction with their natural surroundings. This local knowledge informs decision-making about fundamental aspects of day-to-day life. This knowledge is integral to a cultural complex that also encompasses language, systems of classification, resource use practices, social interactions, ritual and spirituality. These unique ways of knowing are important facets of the world's cultural diversity and provide a foundation for locally-appropriate sustainable development.[viii]

GOAL: SUPPORT REGISTRANTS TO DEVELOP AND IMPLEMENT SOLUTIONS TO REDUCE GREENHOUSE GAS EMISSIONS

BROAD CONSENSUS TO DRASTICALLY REDUCE GREENHOUSE GAS EMISSIONS

Greenhouse gas emission reduction targets across governments vary, but they have one thing in common - they all recognize that greenhouse gas emissions need to be on a decreasing trajectory over the coming decades and that by mid-century should be a small fraction of what they are now or approaching "net-zero". Through its *Climate Change Accountability Act*[ix], BC has legislated targets for reducing greenhouse gas emissions by at least 40% below 2007 levels by 2030, 60% by 2040, and 80% by 2050.

> **What does "net-zero" mean?**
>
> Net-zero refers to achieving an overall balance between greenhouse gases emitted by human activity and greenhouse gases removed from the atmosphere through reduction measures, such as reforestation and carbon capture and storage.

REDUCING GREENHOUSE GASES IN THE ATMOSPHERE WILL REDUCE THE AMOUNT OF ADAPTATION REQUIRED

In 2018, the Intergovernmental Panel on Climate Change (IPCC) advised that, compared to an increase of 2°C, limiting global warming to 1.5°C would substantially reduce risks to health, livelihoods, food security, water supply, human security, and economic growth. To limit global warming to 1.5°C, global greenhouse gas emissions need to be reduced by 45% below 2010 levels by 2030 and reach net-zero by 2050. The pathways to limit global warming to 1.5°C would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems. These transitions imply deep emission reductions from all sources, a wide portfolio of mitigation options and a significant upscaling of investments in those options. Such emission reduction pathways are characterized by energy demand reductions, the decarbonization of electricity and other fuels, electrification of energy end use, deep reductions in agricultural emissions, and some form of carbon dioxide removal coupled with carbon storage on land, sequestration in geological reservoirs or conversion into low-emissions-intensity synthetic fuels.[x]

Governments at all levels have recognized that climate change presents a crisis, and are aligning their policies and targets to limit global warming to 1.5°C. For example, Canada, Metro Vancouver, and City of Vancouver have all adopted net-zero or carbon neutral targets for 2050 and many others have adopted the Province's target of 80% reduction by 2050 (e.g. Prince George).

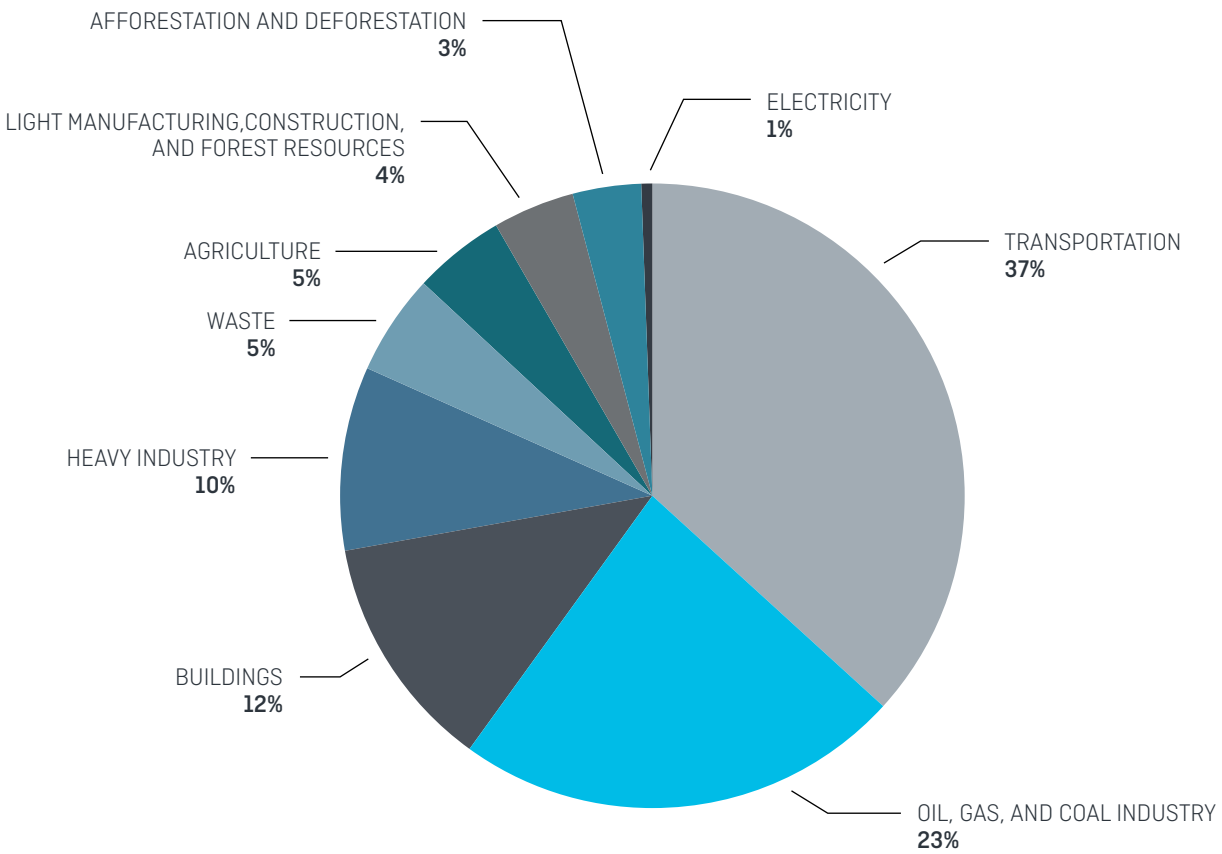
ENGINEERS AND GEOSCIENTISTS CAN PROVIDE INNOVATIVE AND PRACTICAL SOLUTIONS

Engineers and geoscientists work across all sectors and, as solutions providers, can influence the options and decisions that affect life-cycle greenhouse gas emissions in multiple ways. Through engaging on the development of this Plan, we heard from registrants that are playing important roles in helping to reduce greenhouse gas emissions in BC. We heard from building engineers designing buildings to meet the BC Energy Step Code and net-zero building standards, geoscientists working to find minerals for photovoltaics and batteries, transportation engineers expanding public transit and electric vehicle charging systems, chemical engineers helping to implement BC's Low Carbon Fuel Standard, and mechanical engineers helping to reduce fugitive methane emissions from natural gas infrastructure. We also heard from registrants working in the private and public sectors that are making policy and investment decisions that will shape BC's future greenhouse gas emissions trajectory.

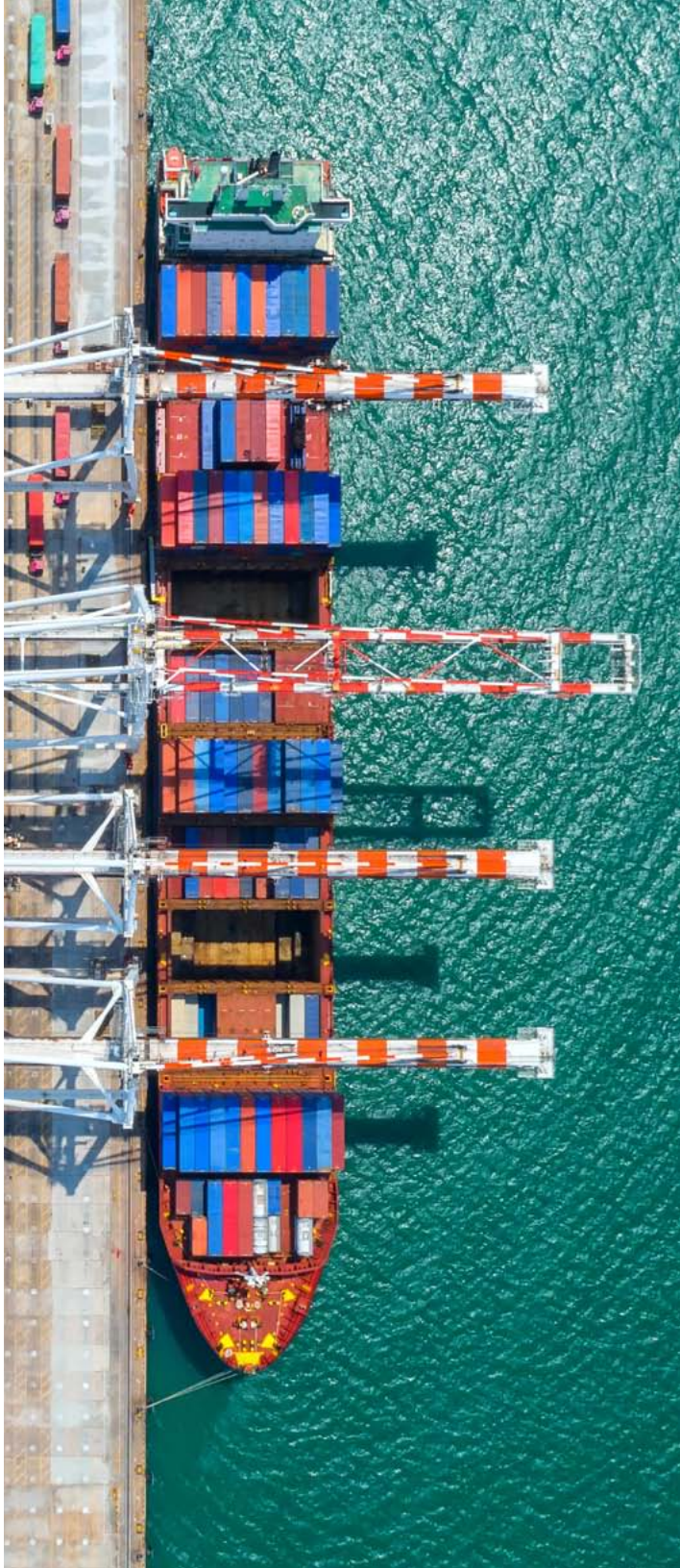
While climate change brings many challenges, it also brings tremendous opportunities to re-envision our economy with lower environmental and social impacts. The emerging green and circular economies need people with the technical training and problem-solving skills of engineers and geoscientists.

One important goal of this Plan is to support registrants across all sectors and positions in delivering innovative and practical solutions to reduce greenhouse gas emissions and drive the economy of the future. British Columbia has much to offer in terms of the green economy, including strengths in areas like renewable energy, green building and infrastructure, energy and energy efficiency management, wood product innovation, and professional services. There are further opportunities for exporting knowledge-based, low-carbon products and technologies to a growing global market for green economy goods

and services.[xi] We can be a substantial part of the solution by demonstrating how to reduce emissions and deploying innovative green technologies and practices across BC, Canada, and the world.



BC GREENHOUSE GAS EMISSIONS BY SECTOR (2018) [xii]



CLIMATE OBJECTIVES AND ACTIONS

The following objectives describe the key means by which Engineers and Geoscientists BC will advance its climate goals.

ENGINEERS AND GEOSCIENTISTS BC'S CLIMATE OBJECTIVES
LEADERSHIP AND COLLABORATION Lead the engineering and geoscience professions' response to climate change in BC and collaborate with others to leverage resources and enhance impact.
REGISTRATION AND COMPETENCY Update the registration process for professional engineers and geoscientists to incorporate climate change competencies.
EDUCATION AND KNOWLEDGE SHARING Build registrants' knowledge of and capacity to consider climate change in their professional practice.
PRACTICE RESOURCES Provide registrants with practical and relevant practice resources to help them deliver appropriate responses to a changing climate and reduce greenhouse gas emissions.

Each objective has associated actions – priority activities that Engineers and Geoscientists BC will implement in a phased approach.

LEADERSHIP & COLLABORATION

OBJECTIVE

Lead the engineering and geoscience professions' response to climate change in BC and collaborate with others to leverage resources and enhance impact.

CONTEXT

Under the *Professional Governance Act*, Engineers and Geoscientists BC has the duty to "serve and protect the public interest with respect to the exercise of a profession" and the responsibility "to establish, monitor and enforce standards of practice to enhance the quality of practice". As a regulatory body under the *Act*, Engineers and Geoscientists BC is committed to providing leadership on climate change through a proactive regulatory approach that increases awareness, education, and professional practice guidance.

The impacts of climate change are wide-ranging and cross-cutting – effective collaboration is key to leveraging resources and enhancing impact.

ACTION 1: LEADERSHIP

To lead the engineering and geoscience professions' response to climate change, Engineers and Geoscientists BC will:

Continue to **raise awareness** and **demonstrate the need to act** on the impacts of climate change and professional responsibilities for considering climate change.

ACTION 2: COLLABORATION

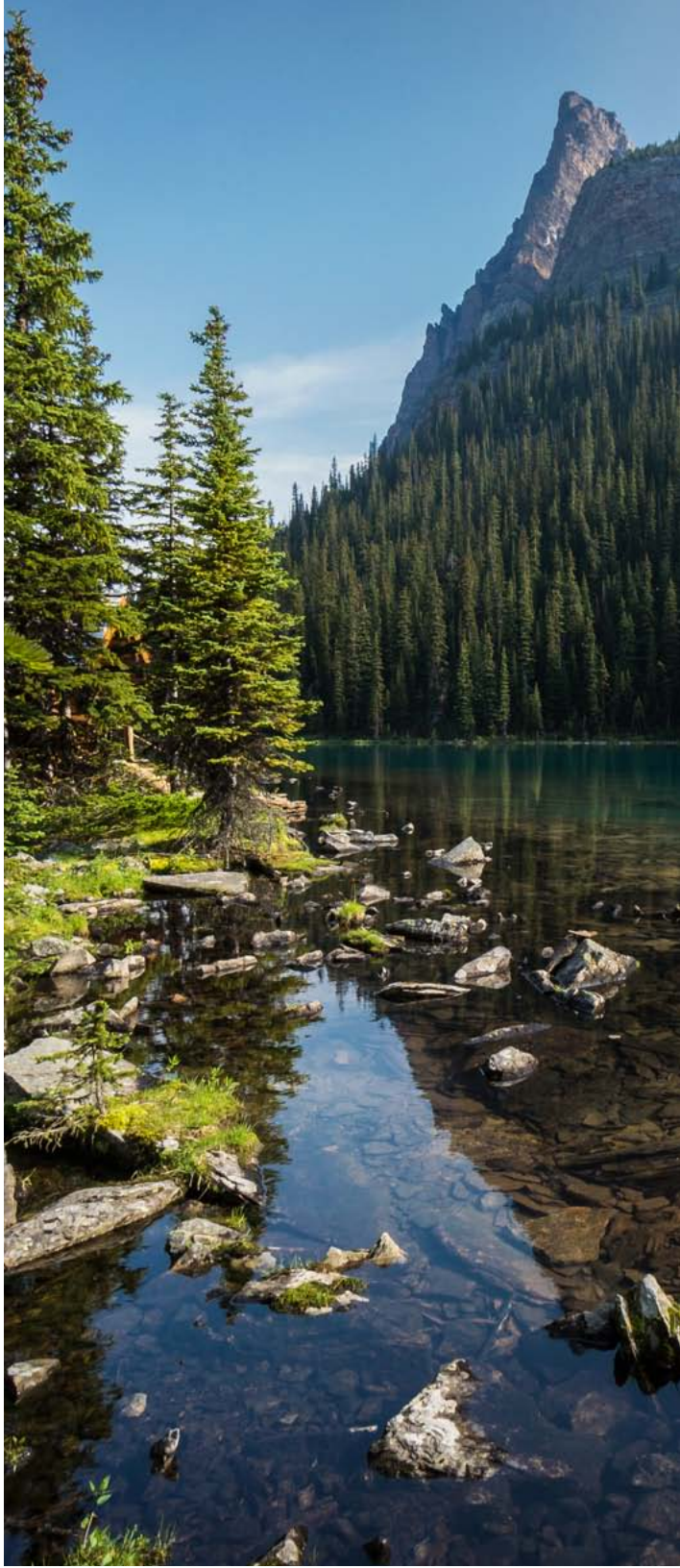
To advance the goals of the Plan, Engineers and Geoscientists BC will expand its collaboration with the following groups and in the following areas:

Engineers Canada, Geoscientists Canada and other provincial/territorial regulatory bodies:
Collaborate on all climate change issues of inter-provincial/territorial and national relevance.

Regulatory and standard-setting bodies:
Provide input on the updating of regulations, codes and standards used by engineering and geoscience professionals to incorporate climate change.

Professional and industry associations:
Share relevant guidance and information, and partner on educational and/or professional events.

Organizations that provide climate data, expertise and training:
Partner to access the latest information, tools and experts for educational events (e.g. Pacific Climate Impacts Consortium).



REGISTRATION & COMPETENCY

OBJECTIVE

Update the registration process for professional engineers and geoscientists to incorporate climate change competencies.

CONTEXT

Under the *Professional Governance Act*, Engineers and Geoscientists BC establishes standards of entry for professional engineering and geoscience through its registration process. As part of this process, applicants need to complete competency assessments. These assessments currently include references to climate change to varying degrees. Strengthening the climate change competencies in these assessments would be an effective way to ensure all new registrants meet a minimum standard of knowledge.

The *Professional Governance Act* also requires all registrants to declare their areas of practice annually. There are overarching key competencies that apply respectively to engineers and geoscientists. In addition, specific technical indicators for competencies are defined for some areas of practice. Many registrants are developing specialized skills and knowledge with respect to climate science, adapting to a changing climate, and/or reducing greenhouse gas emissions, yet these emerging competencies are not recognized in the list of possible areas of practice for registrants. Updating these areas of practice is important because it allows registrants to declare their areas of expertise with respect to climate change and allows Engineers and Geoscientists BC to regulate registrants working in climate-related roles in government, industry, consulting, and other service sectors.

ACTION 3: APPLICANTS

To ensure registrants meet minimum knowledge requirements on climate change, Engineers and Geoscientists BC will:

> Work with Engineers Canada and Geoscientists Canada to ensure climate change is adequately addressed within **competency assessments** as part of applications for professional registration.

> Incorporate climate change into the **Professional Engineering and Geoscience Practice in BC online seminar** for applicants.

ACTION 4: AREAS OF PRACTICE

To enable registrants to declare their specialized knowledge and skills in the areas of climate change science, adapting to a changing climate and/or reducing greenhouse gas emissions, Engineers and Geoscientists BC will:

> Explore adding **new areas of practice** to recognize new areas of competency.

EDUCATION & KNOWLEDGE SHARING

OBJECTIVE

Build registrants' knowledge of and capacity to consider climate change in their professional practice.

CONTEXT

The *Professional Governance Act* requires Engineers and Geoscientists BC to develop and implement a mandatoryContinuing Education (CE) Program. Beginning in July 2021, the CE Program is mandatory and applies to all professional registrants. The CE Program focuses on maintaining competency in each registrant's area of practice.

Through the development process for the Plan, registrants expressed broad support for enhancing access to education and knowledge sharing opportunities regarding climate change. Engineers and Geoscientists BC has offered climate change training sessions through its CE Program for the past eight years. Moving forward, Engineers and Geoscientists BC will work to provide free or low-cost access to continuing education that provide basic education on climate change. Subsidized learning will be offered for development of advanced technical skills and knowledge, such as those related to climate risk assessment and risk management, with a view of supporting registrants to work effectively with interdisciplinary teams to identify climate vulnerabilities and propose appropriate solutions from a range of perspectives.

Through the development process for the Plan, knowledge sharing among registrants was identified as important since many best practices, regulations, codes, and standards have not yet been clearly established or updated to reflect climate change. As the standards of practice around climate change are still emerging, sharing case studies, methods and experiences among registrants can be a helpful way for members to stay up to date. Knowledge sharing can also help registrants troubleshoot new technologies and practices as well as motivate action and increase ambition.

ACTION 5: BASIC EDUCATION

To ensure all registrants have access to basic knowledge on climate change, understand the professional risks, and are aware of a changing standard of practice which requires them to consider climate change, Engineers and Geoscientists BC will:

> Provide **free or low-cost continuing education sessions** on climate change as part of the ethical and/or regulatory learning offerings established through the Continuing Education Program.

ACTION 6: ADVANCED EDUCATION

To meet the needs of governments and markets for engineering and geoscience products and/or services that address climate change, Engineers and Geoscientists BC will:

> **Expand Engineers and Geoscientists BC's course offerings** and offerings through other channels to support registrants in developing more **advanced skills and knowledge** for adapting to a changing climate and reducing greenhouse gas emissions.

ACTION 7: KNOWLEDGE SHARING

To leverage the knowledge and experience across its 39,000 registrants, Engineers and Geoscientists BC will:

> Support and actively encourage registrants to **network and share knowledge** on the challenges and opportunities that climate change brings to professional practice.

PRACTICE RESOURCES

OBJECTIVE

Provide registrants with practical and relevant practice resources to help them deliver appropriate responses to a changing climate and reduce greenhouse gas emissions.

CONTEXT

Under the new Code of Ethics established under the *Professional Governance Act*, one of the principles requires registrants to "have regard for applicable standards, policies, plans and practices established by the government or Engineers and Geoscientists BC".[xiii] This gives increased authority to Professional Practice Guidelines published by Engineers and Geoscientists BC and enables the regulatory body to use guidelines and practice advisories as key tools to support registrants in addressing climate change in professional practice.

Through the development process of the Plan, registrants asked Engineers and Geoscientists BC to continue to provide specific guidance on climate change that is relevant to their practice, expressing the importance of previous guidance documents (e.g. Professional Practice Guidelines on Whole Building Energy Modelling Services[xiv] and Developing Climate Change-Resilient Designs for Highway Infrastructure in British Columbia[xv]). Registrants also stated that Engineers and Geoscientists BC provides a valuable service in curating high-quality information through the Climate Change Information Portal and by providing regular updates to registrants on latest information. Some registrants expressed a desire to address climate change but explained that their actions are limited by barriers and constraints within the organizations or clients that they work for. These registrants asked for information and/or training to address organizational challenges with respect to managing climate risks and/or reducing greenhouse gas emissions.

ACTION 8: PRACTICE GUIDANCE

Based on feedback from registrants and stakeholders, Engineers and Geoscientists BC will:

> **Provide guidance** (e.g. practice guidelines, practice advisories) on adapting to climate change and/or reducing greenhouse gas emissions in a manner that is relevant for specific professional practice applications (e.g. guidance on specific hazards or emission sources).

ACTION 9: CLIMATE CHANGE INFORMATION PORTAL

To provide registrants with up-to-date, high-quality information on climate change that is relevant to professional engineering and geoscience, Engineers and Geoscientists BC will:

> Promote and continue to develop Engineers and Geoscientists BC's **Climate Change Information Portal.**

ACTION 10: SUPPORT FOR FIRMS

The *Professional Governance Act* introduced the requirement to regulate engineering and geoscience firms in BC. All entities that engage in the practice of professional engineering or professional geoscience in BC are required to register for a Permit to Practice. To support firms required to register, Engineers and Geoscientists BC will:

> Provide firm registrants and their professional employees with **guidance and/or training** on adapting to climate change and/or reducing greenhouse gas emissions with respect to the practice of professional engineering and professional geoscience.

DESIRED OUTCOMES AND EVALUATING PROGRESS

Through the implementation of this Plan, Engineers and Geoscientists BC aims to achieve measurable progress towards the following desired outcomes. Progress will be evaluated through surveys of registrants and through other feedback channels.

ADAPTING TO CLIMATE CHANGE

- Registrants have a functional understanding of the changing climate and climate risk assessment and risk management principles and can incorporate these principles into their roles and areas of practice, as appropriate.
- Registrants have access to high-quality future climate data and tools for assessing and responding to climate risk in their practice.
- Regulations, codes, and standards account for a changing climate.
- Products and services requiring professional engineering and geoscience meet Engineers and Geoscientists BC's established standards of practice for assessing and managing risks, as outlined in its practice guidelines.

REDUCING GREENHOUSE GAS EMISSIONS

- Registrants understand the pace at which BC needs to reduce greenhouse gas emissions to meet Canada's international commitments.
- Registrants understand the possible solutions for reducing greenhouse gas emissions applicable to their practice.
- Registrants identify opportunities to reduce greenhouse gas emissions in their practice and implement these opportunities, or advise their clients or managers, as appropriate.

PLAN IMPLEMENTATION

The successful implementation of this Plan is a priority for Engineers and Geoscientists BC.

To integrate the implementation of this Plan into its ongoing activities, Engineers and Geoscientists BC commits to the following actions:

Designate a climate change **champion** on Engineers and Geoscientists BC's Senior Leadership Team.

Establish **roles and responsibilities** for implementing the Plan.

Engage registrants to assist in the implementation of the Plan through volunteer groups, surveys and other channels.

Consider integration of climate change into Engineers and Geoscientists BC's **Strategic Plan**.

Develop **annual work plans** and **budget** allocations for implementing the Plan.

Report on Plan implementation in Engineers and Geoscientists **BC's Annual Report**.

SUMMARY OF THE CLIMATE CHANGE ACTION PLAN

GOALS

Adapting to Climate Change
Support the effective assessment and management of climate risk in the practice of professional engineering and geoscience in BC.

Reducing Greenhouse Gas Emissions
Support registrants to develop and implement solutions to reduce greenhouse gas emissions.

OBJECTIVES AND ACTIONS

Leadership and Collaboration

Lead the engineering and geoscience professions' response to climate change in BC and collaborate with others t o leverage resources and enhance impact.

Action 1: Leadership

Continue to raise awareness and demonstrate the need to act on the impacts of climate change and professional responsibilities.

Action 2: Collaboration

Engineers Canada, Geoscientists Canada and other provincial/territorial regulatory bodies: Collaborate on all climate change issues of inter-provincial/territorial and national relevance.

Regulatory and standard-setting bodies: Provide input on the updating of regulations, codes and standards used by engineering and geoscience professionals to incorporate climate change.

Professional and industry associations: Share relevant guidance and information, and partner on educational and/or professional events.

Organizations that provide climate data, expertise and training: Partner to access the latest information, tools and experts for educational events (e.g. Pacific Climate Impacts Consortium).

Registration and Competency

Update the registration process for professional engineers and geoscientists to incorporate climate change competencies.

Action 3: Applicants

Work with Engineers Canada and Geoscientists Canada to ensure climate change is adequately addressed within competency assessments as part of applications for professional registration.

Incorporate climate change into the Professional Engineering and Geoscience Practice in BC online seminar for applicants.

Action 4: Areas of Practice

Explore adding new areas of practice to recognize new areas of competency.

Education and Knowledge Sharing

Build registrants' knowledge and capacity to consider climate change in their professional practice.

Action 5: Basic Education

Provide free or low-cost continuing education sessions on climate change as part of the ethical and/or regulatory learning offerings established through the Continuing Education Program.

Action 6: Advanced Education

Expand Engineers and Geoscientists BC's course offerings and offerings through other channels to support registrants in developing more advanced skills and knowledge for adapting to a changing climate and reducing greenhouse gas emissions.

Action 7: Knowledge Sharing

Support and actively encourage registrants to network and share knowledge on the challenges and opportunities that climate change brings to professional practice.

Practice Resources

Provide registrants with practical and relevant practice resources to help them deliver appropriate responses to a changing climate and reduce GHG emissions.

Action 8: Practice Guidance

Provide guidance (e.g. practice guidelines, practice advisories) on adapting to climate change and/or reducing greenhouse gas emissions in a manner that is relevant for specific professional practice applications (e.g. guidance on specific hazards or emission sources).

Action 9: CC Information Portal

Promote and continue to develop Engineers and Geoscientists BC's Climate Change Information Portal.

Action 10: Support for Firms

Provide firm registrants and their professional employees with guidance and/or training on adapting to climate change and/or reducing greenhouse gas emissions with respect to the practice of professional engineering and professional geoscience.

Note: "GHG" = greenhouse gas "CC" = climate change

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