

# Our Clean Future: A Yukon strategy for climate change, energy and a green economy

What we heard

September 2020



**Yukon**

# Table of contents

Background .....	1
Engagement process .....	1
Participation .....	2
What we heard.....	7
Approach.....	8
The four goals.....	10
Reducing greenhouse gas emissions.....	10
Ensuring access to reliable, affordable and renewable energy .....	11
Adapting to the impacts of climate change .....	12
Building a green economy .....	13
Action areas .....	14
Transportation.....	14
Homes and buildings.....	16
Energy production.....	18
Communities.....	19
Innovation .....	21
Leadership .....	22
Next steps.....	23
Acknowledgements .....	23



## Background

The Government of Yukon has been working with Yukon First Nations, transboundary Indigenous groups and Yukon municipalities to develop a territory-wide strategy to reduce greenhouse gas emissions, enhance energy security, adapt to the impacts of climate change and build a green economy since summer 2017. *Our Clean Future: A Yukon strategy for climate change, energy and a green economy* is the result of this collaborative effort and was released in draft form in November 2019 for review and comments.

## Engagement process

Working collaboratively with our Indigenous and municipal partners, the Government of Yukon sought feedback on the draft version of *Our Clean Future* from November 14, 2019, to January 17, 2020. To facilitate feedback, the full version of the draft strategy was released as well as a shorter summary document.

We used a variety of methods to engage a wide range of people. This included public meetings, a survey, and one-on-one meetings with stakeholders, industry members, Yukon First Nations, transboundary Indigenous groups and Yukon municipalities. Notification of the engagement was done through letters, social media, and newspaper, Facebook, radio and digital ads.

Input received on the draft version of *Our Clean Future* has informed revisions and improvements to the strategy. The final version of *Our Clean Future* is now available on Yukon.ca.



# Participation

## Public meetings

We held public meetings in 13 communities with 163 participants from Yukon and the Northwest Territories.

Community	# of participants	Community	# of participants
Carcross	8	Mayo	8
Carmacks	0	Old Crow	13
Dawson City	5	Pelly Crossing	60
Faro	3	Ross River	11
Haines Junction	7	Teslin	2
Inuvik	5	Watson Lake	1
		Whitehorse	40
<b>Total</b>	<b>163</b>		

At the public meetings, all participants were asked to reflect on and discuss the following questions:

- ▶ How supportive are you of the vision for the strategy?
- ▶ How supportive are you of the approach taken to develop the strategy?
- ▶ Does *Our Clean Future* do enough, too much, or not enough to reduce greenhouse gas emissions, enhance energy security, adapt to the impacts of climate change and build a green economy?
- ▶ What aspects of the strategy do you strongly support? Are there any things you would change?
- ▶ Are there any actions in the strategy that you strongly support, would remove or believe are missing?

In addition, youth participants were asked to provide input on the proposed creation of a Youth Panel on Climate Change by discussing the following questions:

- ▶ What are the three most important things needed to make a Youth Panel on Climate Change successful?
- ▶ Are you interested in participating on a Youth Panel on Climate Change? Why or why not?



## Survey

A short survey was available online that asked respondents to identify whether they thought the commitments in *Our Clean Future* do enough, too much or not enough to:

- ▶ reduce greenhouse gas emissions;
- ▶ ensure Yukoners have access to reliable, affordable and renewable energy;
- ▶ adapt to the impacts of climate change; and
- ▶ build a green economy.

There was also an opportunity to provide written comments after each question. We received 288 unique responses to the survey.

## Meetings with Indigenous and municipal partners

One-on-one meetings were held with staff or leadership from the following Yukon First Nations, transboundary Indigenous groups and Yukon municipalities. These meetings were in addition to group meetings with Indigenous and municipal partners during the development of *Our Clean Future*.

- ▶ Acho Dene Koe First Nation
- ▶ City of Dawson
- ▶ Inuvialuit Regional Corporation
- ▶ Village of Carmacks
- ▶ Village of Mayo
- ▶ Association of Yukon Communities
- ▶ Gwich'in Tribal Council
- ▶ Village of Haines Junction
- ▶ Tr'ondëk Hwëch'in
- ▶ Town of Faro
- ▶ Vuntut Gwitchin Government

In addition to the meetings above, the Council of Yukon First Nations and the Assembly of First Nations-Yukon Region provided joint input on the draft version of *Our Clean Future*. Their input was informed by discussions at the Yukon First Nations Climate Action Gathering that the organizations hosted in February 2020.



## Stakeholder and industry input

The stakeholder and industry members below requested one-on-one meetings with the project team or submitted written comments on *Our Clean Future*.

- ▶ Arctic Institute for Community Based Research
- ▶ ATCO Electric Yukon
- ▶ Canadian Fuels Association
- ▶ Chieftain Energy & Air North Yukon's Airline
- ▶ Ducks Unlimited Canada
- ▶ General Motors
- ▶ Klondike Placer Miners' Association
- ▶ Low-Carbon Yukon Stakeholder Committee
- ▶ Neste
- ▶ Northern Climate ExChange
- ▶ Solvest Inc.
- ▶ Superior Propane
- ▶ Tourism Industry Association of Yukon
- ▶ Western Copper and Gold
- ▶ Whitehorse Motors
- ▶ Whitehorse Subaru & Whitehorse Kia
- ▶ Whitehorse Toyota
- ▶ Wildlife Conservation Society Canada
- ▶ Wildlife Management Advisory Council (North Slope)
- ▶ Yukon Astronomical Society
- ▶ Yukon Chamber of Commerce Energy Committee
- ▶ Yukon Conservation Society
- ▶ Yukon Energy Corporation
- ▶ Yukoners Concerned
- ▶ Yukon Federation of Labour
- ▶ Yukon First Nations Chamber of Commerce
- ▶ Yukon NDP Caucus
- ▶ Yukon Nissan
- ▶ Yukon Renewable Electricity Panel
- ▶ Yukon Wood Products Association

The comments from the Yukon Renewable Electricity Panel were reflective of input they heard from Yukoners at public meetings in Whitehorse, Watson Lake and Haines Junction as well as from meetings with energy stakeholder groups, Yukon First Nations and students in November 2019.



## What we heard

The remainder of this document summarizes the most common input we received during the public engagement. While much of the input was consistent, climate change and energy are polarizing topics and we have reflected areas where there were strong differences of opinion.

We have organized the input we received into:

- ▶ comments on the approach to developing and implementing *Our Clean Future*;
- ▶ feedback on the four goals of the strategy; and
- ▶ comments related to each of the action areas in the draft strategy.

For a detailed account all of the input received on the draft version of *Our Clean Future*, please read the appendices to this document, which are available separately through Yukon.ca:

- ▶ *Appendix A: Response Letters from Stakeholders* includes the comment submissions from stakeholder groups that asked for their input to be shared publicly;
- ▶ *Appendix B: Complete Input* provides a detailed summary of all of the comments received on the draft version of *Our Clean Future*; and
- ▶ *Appendix C: Quantitative Survey Results* shows the number and percentage of respondents that answered each question in the online survey.

In this document, we also highlight some of the key changes we have made to *Our Clean Future* in response to the input we received. The changes we made to *Our Clean Future* reflect what we heard during this public engagement as well as expert information about cost, feasibility, effectiveness and other important considerations when it comes to climate change and energy action. In addition, many of the comments we received were supportive of the draft version of *Our Clean Future*. To address those comments, we did not make changes; instead, we maintained certain actions or sections of the draft strategy.



# Approach

## Overall impression

What we heard:

- ▶ *Our Clean Future* is a good start.
- ▶ The strategy is a step in the right direction but more action will need to be taken in the future.
- ▶ *Our Clean Future* should be more ambitious or bold, although some participants commented that the current level of ambition is good or that *Our Clean Future* is unrealistic.
- ▶ Varying opinions on the scope of the strategy: some were glad that the strategy is comprehensive while others suggested the strategy has too many actions or is too broad.
- ▶ Yukon should be a leader on climate change.
- ▶ Concerns about climate action imposing costs on individuals, businesses and communities.
- ▶ The strategy should better reflect the fact that Yukon is in a climate change crisis.
- ▶ Requests to see the information used to decide what to include in *Our Clean Future*.
- ▶ The strategy should extend past 2030.

## What's changed?

- ▶ *Our Clean Future* now includes more information about how the objectives and actions in the strategy were prioritized.
- ▶ *Our Clean Future* more strongly communicates a sense of urgency.





## Implementation

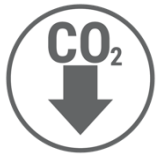
What we heard:

- ▶ Implementation is critical and urgent.
- ▶ Requests for more detail on what the Government of Yukon plans to do, concrete commitments and more information on how the strategy will be implemented.
- ▶ All of the actions in *Our Clean Future* should be measurable and have clear timelines and targets.
- ▶ Individuals, organizations and all people more generally should be involved in the implementation of *Our Clean Future*.
- ▶ Requests for regular reporting on progress, often annually, and information on how and when reporting will be completed.
- ▶ The importance of sharing, respecting and reflecting traditional knowledge.
- ▶ Calls for more penalties, disincentives and requirements in order to change behaviour.

### What's changed?

- ▶ Actions have been made more specific and assigned clear completion dates.
- ▶ *Our Clean Future* lays out the indicators and targets that the Government of Yukon will report on each year.

# The four goals



## Reducing greenhouse gas emissions

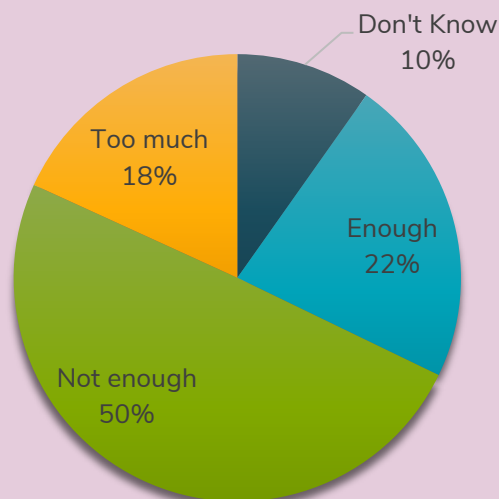
### What we heard:

- ▶ The proposed target of a 30 per cent greenhouse gas reduction by 2030 should be higher, although some participants agreed with the current target while others were concerned about its feasibility.
- ▶ Desire for longer-term goals or focus in addition to the 2030 target.
- ▶ Concerns with or opposition to an intensity-based target for the mining industry, although some participants were supportive of it.
- ▶ Requests for more information about how Yukon's emissions are measured.
- ▶ Yukon's greenhouse gas emissions are so small that we do not need to reduce our emissions or our efforts will not make a difference.
- ▶ Yukon should reduce its greenhouse gas emissions, but other jurisdictions need to do their part too.

### What's changed?

- ▶ *Our Clean Future* now includes a target reach net zero greenhouse gas emissions by 2050.
- ▶ *Our Clean Future* includes more information about how Yukon's greenhouse gas emissions are measured.

### Do you think the strategy does enough, too much or not enough to reduce greenhouse gas emissions?





# Ensuring access to reliable, affordable and renewable energy

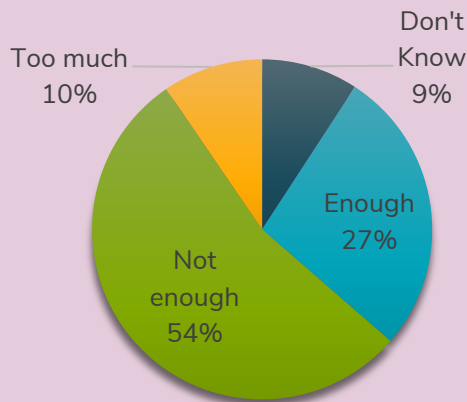
## What we heard:

- ▶ The 93 per cent target for renewable electricity generation on Yukon's main grid on average should be higher, often urging for 98 per cent or higher.
- ▶ Requests for information on how the 93 per cent target would be met and concerns that it is not possible to meet this target given the energy sources available.
- ▶ The proposed target of 40 per cent renewable heating by 2030 should be higher, urging for anywhere from 45 to 100 per cent renewable heating by 2030.
- ▶ Yukon should not use any fossil fuels, often urging the Government of Yukon to stop investing in fossil fuels, although some participants were supportive of local fossil fuel development.
- ▶ Concerns that electrification of transportation and heating would place increased pressure on the electricity grid and result in increased burning of fossil fuels to generate electricity.
- ▶ Differing opinions on electricity rates: some support increasing electricity rates while others raised concerns about potential increases.

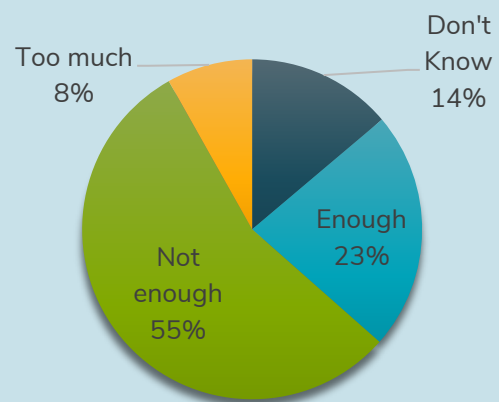
## What's changed?

- ▶ The target for renewable electricity generation on Yukon's main grid has been increased to 97 per cent on average by 2030.
- ▶ The target for renewable heating has been increased to 50 per cent by 2030.

**Do you think the strategy does enough, too much or not enough to ensure Yukoners have access to reliable, affordable and renewable energy for electricity?**



**Do you think the strategy does enough, too much or not enough to ensure Yukoners have access to reliable, affordable and renewable energy for heating?**





## Adapting to the impacts of climate change

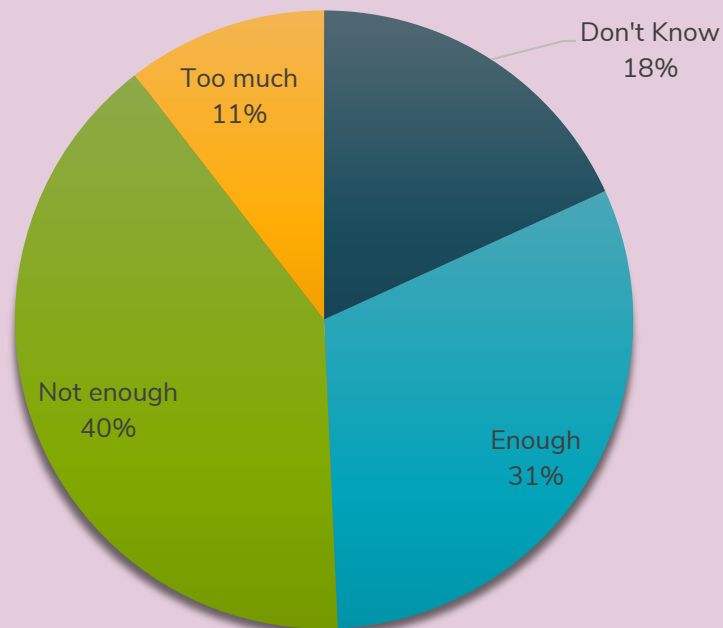
### What we heard:

- ▶ Climate change is already happening quickly and people are seeing changes to the land, water and wildlife.
- ▶ Support for climate change adaptation and requests for the Government of Yukon be more ambitious in this area.
- ▶ Suggestions for areas where future research can inform adaptation actions, such as methane release from permafrost thaw, impacts to infrastructure, and impacts to plants, animals, and water ecosystems.
- ▶ It is important to understand the impacts of climate change on different populations across Yukon, including individuals that are more at risk due to social or economic circumstances.

### What's changed?

- ▶ *Our Clean Future* includes more information about how the Government of Yukon will work with partners to track progress toward the target to be highly resilient to climate change by 2030.

**Do you think the strategy does enough, too much or not enough to address the impacts of climate change on Yukoners?**



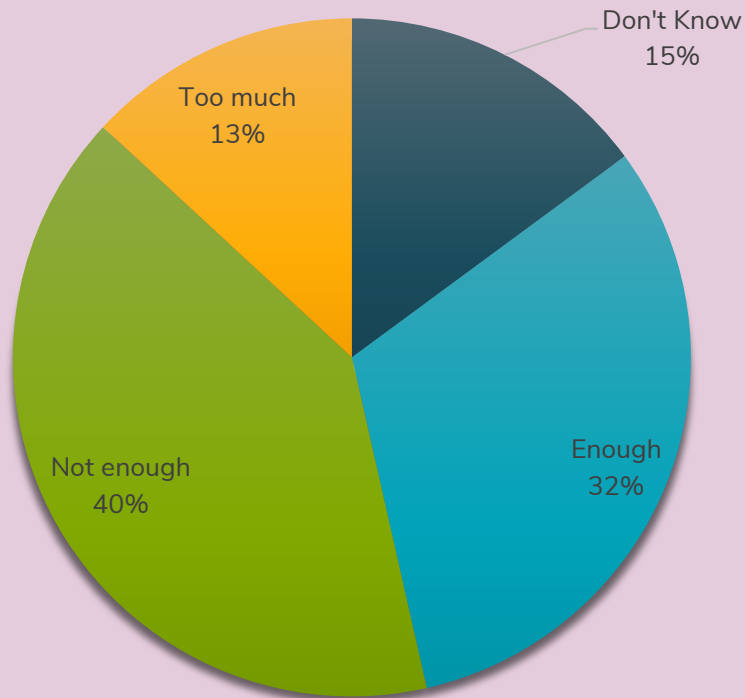


## Building a green economy

### What we heard:

- ▶ Calls for very broad, systemic cultural and lifestyle changes in order to successfully shift to a green economy, particularly changes in consumption patterns.
- ▶ Support for *Our Clean Future's* approach to moving toward a green economy.
- ▶ Comments about the need to be more self-sufficient or to build a more circular economy.
- ▶ The green economy is likely to create more economic opportunities and jobs.
- ▶ Concerns with, or opposition to, offering incentives to businesses or requests to provide incentives for individuals in addition to businesses.

### Do you think the strategy does enough, too much or not enough to build a green economy in Yukon?



# Action areas



## Transportation

### Electric vehicles

#### What we heard:

- ▶ Desire to see more electric vehicles used in the territory, including electric snow machines.
- ▶ Questions or concerns about how electric vehicles work and how well they perform in Yukon, including concerns about increased demand on the electrical grid.
- ▶ Concerns about the supply of electric vehicles to Yukon.
- ▶ Requests for financial incentives to make it easier to purchase an electric or hybrid vehicle.
- ▶ Support for an electric vehicle charging network.
- ▶ Support the Government of Yukon committing to purchase electric vehicles.

### Public and active transportation

#### What we heard:

- ▶ More should be done to encourage public transportation use including free or subsidized bus passes, routes that meet commuter needs and more frequent buses.
- ▶ Calls for inter-community public transit.
- ▶ Support for the addition of more walking and biking trails for commuters, the proposed rebate for electric bicycles and designing road infrastructure to promote active transportation.



## Renewable fuels

### What we heard:

- ▶ Support for Yukon adopting a fuel renewable content standard.
- ▶ Concerns and questions about the use of renewable fuels, including the lifecycle greenhouse gas emissions of biofuels and the winter performance of biofuels.

### What's changed?

- ▶ *Our Clean Future* commits to establish renewable fuel blending requirements by 2025.
- ▶ *Our Clean Future* includes more information about renewable fuels.

## Efficient travel

### What we heard:

- ▶ Yukon overall, or their community specifically, has a car culture that needs to be addressed.
- ▶ Support for higher vehicle registration fees on fossil fuel vehicles and larger vehicles to encourage the use of lower-emission vehicles.
- ▶ Concerns about vehicle idling.



## Homes and buildings

### Renewable heating

#### What we heard:

- ▶ Support for increasing the use of renewable heating sources, including biomass (wood), electricity, heat pumps and geothermal.
- ▶ Support for electric thermal storage (ETS), often requesting rebates or investment in ETS.
- ▶ The link between biomass energy and reducing forest fire risk.
- ▶ Concerns about greenhouse gas emissions from biomass use.
- ▶ Suggestions for wood for biomass energy to solely come from “waste” sources, including wood from fire-smarting and other fuel management activities, beetle killed trees, standing dead and fire-killed trees, and by-products from the forest industry.
- ▶ Support for the commitment to install biomass heating systems in Government of Yukon buildings, often asking for an associated target to be set.

### What's changed?

- ▶ Emissions from Government of Yukon buildings will be 30 per cent lower by 2030 than they were in 2010.
- ▶ *Our Clean Future* now includes an action to work with industry to test 25 electric heat pumps with backup fossil fuel heating systems or utility-controlled electric thermal storage.

### Climate impacts

#### What we heard:

- ▶ Concerns about challenges getting affordable insurance for damage due to climate-related events, particularly flooding and wildfires.





## Energy programs and initiatives

### What we heard:

- ▶ Support for energy efficiency retrofits and incentive programs.
- ▶ Support for demand-side management (DSM) or calls for more focus on, or financial support for, DSM.
- ▶ Support for smart meters and smart grids, including the Peak Smart pilot project.
- ▶ Comments on training needs for energy efficiency and renewable heating systems.

### What's changed?

- ▶ The Government of Yukon has set a target to support 2,000 residential, commercial and institutional building retrofits by 2030.

## New buildings

### What we heard:

- ▶ Support for more stringent building codes for energy efficiency.
- ▶ New Government of Yukon buildings should be energy efficient, not use fossil fuel heating or be heated with, or designed for, renewable heating sources.



## Energy production

### Energy generation and storage

#### What we heard:

- ▶ Support for developing a range of renewable and alternative energy sources including solar, wind, biomass (wood), geothermal, hydro, waste to energy and nuclear energy.
- ▶ Concerns related to nuclear energy.
- ▶ Support for financial assistance for small-scale renewable electricity generation or of the Government of Yukon's existing microgeneration program.
- ▶ Support for electricity storage, particularly pumped hydro storage and batteries.
- ▶ Different views on connecting to British Columbia's electricity grid: some supported while others were not supportive.
- ▶ Encouragement for the Government of Yukon to install or test renewable energy technologies at Government of Yukon sites, including office buildings, social housing, highway camps and research stations.

### Climate impacts

#### What we heard:

- ▶ The importance of diversifying Yukon's electrical grid with multiple sources of renewable energy to reduce vulnerability to climate change.
- ▶ Concerned about changes to water levels due to climate change.

### What's changed?

- ▶ *Our Clean Future* now includes an action to install renewable electricity generation systems at 5 off-grid Government of Yukon buildings by 2025.

### What's changed?

- ▶ *Our Clean Future* now includes an action to develop a climate change adaptation plan for the Yukon Energy Corporation.



## Communities

### Wild species and their habitats

#### What we heard:

- ▶ Support for the actions under the objective to “respond to the impacts of climate change on wild species and their habitats” and requests for a stronger focus on this area.
- ▶ Support for considering climate change in landscape planning processes, including land use planning and protected areas planning.
- ▶ Desire to see more focus in the strategy on the role that natural ecosystems play in supporting community resilience.
- ▶ Recommendations to reorganize the strategy to increase the emphasis on the relationship between people and the environment, or on the impacts of climate change on the natural environment.

### What’s changed?

- ▶ *Our Clean Future* includes a new area called “People and the Environment” that emphasizes:
  - the impacts of climate change on the environment;
  - the interconnectedness between people and the environment; and
  - the unique relationship that Indigenous people have with the land, water and animals.

### Health and wellbeing

#### What we heard:

- ▶ The importance of getting out on the land for traditional and cultural activities, recreation and tourism, subsistence and livelihoods.
- ▶ The way of life of many Yukoners is changing as a result of climate change-related impacts, particularly on traditional activities, and called for actions to help communities adapt.
- ▶ Support for actions addressing the impacts of climate change on health, particularly mental health.

### What’s changed?

- ▶ *Our Clean Future* includes a new action to work with Yukon First Nations to develop a hunter education program that can be adapted and delivered by Yukon First Nations for First Nations citizens.



## Food security

### What we heard:

- ▶ Ensuring food security in a changing climate is critical.
- ▶ Suggestions that food security and local food production are one of the highest climate action priorities for Yukon First Nations.
- ▶ Comments about the importance of wild food that is hunted and gathered.
- ▶ Support for food production in Yukon, including commercial farms, community greenhouses, fish farms and family gardens.
- ▶ Calls for more financial, technical, human resource and project management support for local food production.

### What's changed?

- ▶ The Government of Yukon has committed to incorporate support for local food producers into procurement processes, where possible.

## Emergency preparedness and response

### What we heard:

- ▶ Concerns about Yukon's ability to prevent and respond to emergencies or natural disasters, especially wildfires.
- ▶ Concerns about wildfire risk management, with many wanting to see increased wildfire management measures.

## Community design and infrastructure

### What we heard:

- ▶ Support for designing communities in more efficient, environmentally conscious ways.
- ▶ Concerns about the rising costs associated with replacing damaged or at-risk infrastructure, as well as the upfront cost to build to higher resilience standards.



## Innovation

### Training and skills

#### What we heard:

- ▶ Calls for training and re-training efforts to increase participation in the green economy, particularly for renewable energy projects and new heating technologies.
- ▶ Requests for training to be made available in the Yukon's communities, not just in Whitehorse.

### Mining

#### What we heard:

- ▶ Suggestions for mines to be connected to the grid or be required to generate their own electricity from renewable sources.
- ▶ Concerns with or opposition to an intensity-based target for the mining industry, although some participants were supportive of it.
- ▶ Requests for more information about the intensity-based target and how it would be enforced.

### Waste

#### What we heard:

- ▶ The importance of reducing waste at the source, including reducing packaging and eliminating single use plastics.
- ▶ Desires for improved waste diversion measures including recycling centres in communities and the inclusion of more materials in recycling programs.
- ▶ Support for legislating against planned obsolescence and taking other actions to increase product lifespan.

### What's changed?

- ▶ *Our Clean Future* includes a new action to expand existing professional development opportunities to enable more Yukoners to participate in the green economy.

### What's changed?

- ▶ *Our Clean Future* now includes targets for waste diversion and waste reduction.
- ▶ *Our Clean Future* includes a new commitment to develop Extended Producer Responsibility legislation that will make producers responsible for managing materials across the product lifecycle.



## Leadership

### Youth

#### What we heard:

- ▶ The importance of educating and empowering youth.
- ▶ Calls for climate change and energy content to be required or enhanced in the school curriculum.
- ▶ Comments on the proposed action to develop a Youth Panel on Climate Change, indicating support for the panel or providing suggestions for how the panel should operate and make decisions, panel membership and what activities and topics the panel should conduct and discuss.

### Public education and awareness

#### What we heard:

- ▶ The importance of public education on climate change.
- ▶ Suggestions for public communications to highlight positive success stories in order to motivate people to take action.

### Government leadership

#### What we heard:

- ▶ Calls for the Government of Yukon to reduce its fossil fuel use.
- ▶ Limited capacity is a barrier to First Nations and municipal action on climate change, noting the importance of project management support, trained staff and funding.
- ▶ Comments that rural communities face challenges to take action on climate change due to costs of development, lack of services and increased climate risks.
- ▶ Support for the integration of a climate change lens into the Government of Yukon's decision-making processes.
- ▶ Support for climate change training for Government of Yukon staff.

## Next steps

*Our Clean Future* has been revised and improved to reflect the input received during this public engagement and the final version is available through Yukon.ca. This means we are now at the last step of the process illustrated on the right: implementing *Our Clean Future*.

As the Government of Yukon follows through on our commitments in *Our Clean Future*, we will continue to work collaboratively with Indigenous and municipal partners to identify opportunities for improvement and continued partnerships. We will also report annually to Yukoners on our progress toward the targets established in *Our Clean Future* and the status of each of the Government of Yukon's actions.

We thank all of the Yukoners and individuals from transboundary Indigenous groups who shared their thoughts, ideas and expertise to shape the development of *Our Clean Future*.

## Acknowledgements

The Government of Yukon would like to thank all of the representatives from participating Indigenous and municipal governments and organizations that helped us plan and deliver public engagement activities. We could not have delivered this public engagement without your local knowledge and expertise. We also thank the Assembly of First Nations-Yukon Region and the Council of Yukon First Nations for inviting us to the Yukon First Nations Climate Action Gathering and for sharing some of what they heard at the gathering. Finally, we thank Michael Pealow for respectfully facilitating many of the community meetings.





  
**Yukon**