

FortisBC Long Term Gas Resource Plan (LTGRP) Resource Planning Advisory Group (RPAG) Kick-off Meeting

January 25, 2021

Agenda

1. Introductions & Housekeeping **(40 min)**
2. About FortisBC & Long Term Resource Planning **(20 min)**
3. Energy Planning Landscape in BC **(30 min)**
4. Engagement Plan for 2021 **(25 min)**
5. Wrap-up & Next Steps **(5 min)**

Speaker Introductions



Ken Ross,
Manager, Integrated
Resource Planning &
DSM Reporting



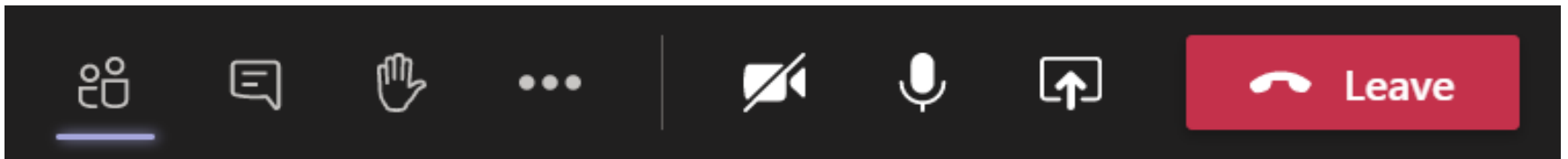
Paul Chernikhowsky,
Director, Regulatory
Projects & Resource
Planning



Anda Telman,
Manager, Integrated
Resource Planning

Housekeeping

- We encourage you to participate through video, but not required
- When you're not speaking, mute yourself to reduce background noise
- If you can, we ask that you save your questions until the allocated section breaks
 - We encourage you to use the **hand-up feature** to indicate you'd like to speak
 - When we call upon you, we ask that you un-mute and speak to us directly
 - You may also use the **chat** functionality if you'd prefer
- Please do not use the chat functionality for private conversations



Safety Reminders

- Ensure you're comfortable at your workstation
- If you need to, stand-up and stretch
- Take breaks as needed

RPAG Member Introductions

- Avista
- BC Hydro
- BC Ministry of Energy, Mines & Low Carbon Innovation
- BC Public Interest Advocacy Centre
- BC Utilities Commission
- Building Owners & Managers Association
- Business Council of BC
- Canadian Institute of Plumbing & Heating
- City of Abbotsford
- City of Burnaby
- City of Campbell River
- City of Kamloops
- City of New Westminster
- City of Prince George
- Clean Energy BC
- Climate Action Secretariat
- Commercial Energy Consumers Association of BC
- Community Energy Association
- Enbridge
- MoveUP
- Northwest Gas Association
- Pacific Northern Gas
- Pembina Institute
- Selkirk College
- SFU Renewable Cities
- Union of BC Municipalities
- Village of Keremeos

Disclaimer for an Open Dialogue

- The input provided during this meeting may become public during our regulatory proceedings
- We will not attribute input to any individual or entity
- We encourage you to provide further input during the formal regulatory proceedings – even if your opinions have changed
- We will provide the presentation and meeting notes online

Meeting Objectives

- Formally initiate the RPAG and facilitate the introduction of members
- Highlight the role and importance of the RPAG
- Review relevant background information about long term resource planning
- Provide an overview of what our future engagement will look like and how we will collect your valuable input and feedback

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About FortisBC & Long Term Resource Planning



FortisBC Overview



- FortisBC customers span across **135 communities** and **57 Indigenous communities**
- Largest energy provider in the province
- Serving **1.2 million** customers providing:
 - electricity
 - natural gas
 - renewable gas
 - propane
 - alternative energy solutions
- Employing **2,400** people

Purpose of Resource Planning

- The LTGRP **looks ahead 20 years** and provides a road map for securing safe, reliable and cost-effective energy resources.
- Represents an important component in our **overall strategic planning**
- Requirement of the Utilities Commission Act (UCA)
 - Section 44.1(2) Resource Planning Guidelines
- Seeking **acceptance** from the British Columbia Utilities Commission (BCUC)
- FortisBC files separate applications for Certificates of Public Convenience and Necessity (CPCN), if and as necessary, for any of the identified activities in accordance with the Commission's guidelines.

Resource Planning Objectives

- Ensure cost effective, secure and reliable energy for customers
- Provide cost-effective demand-side management and cleaner customer solutions
- Ensure consistency with provincial energy objectives
 - Example: Clean Energy Act and CleanBC
- Address prior BCUC directives

Resource Planning Engagement Groups

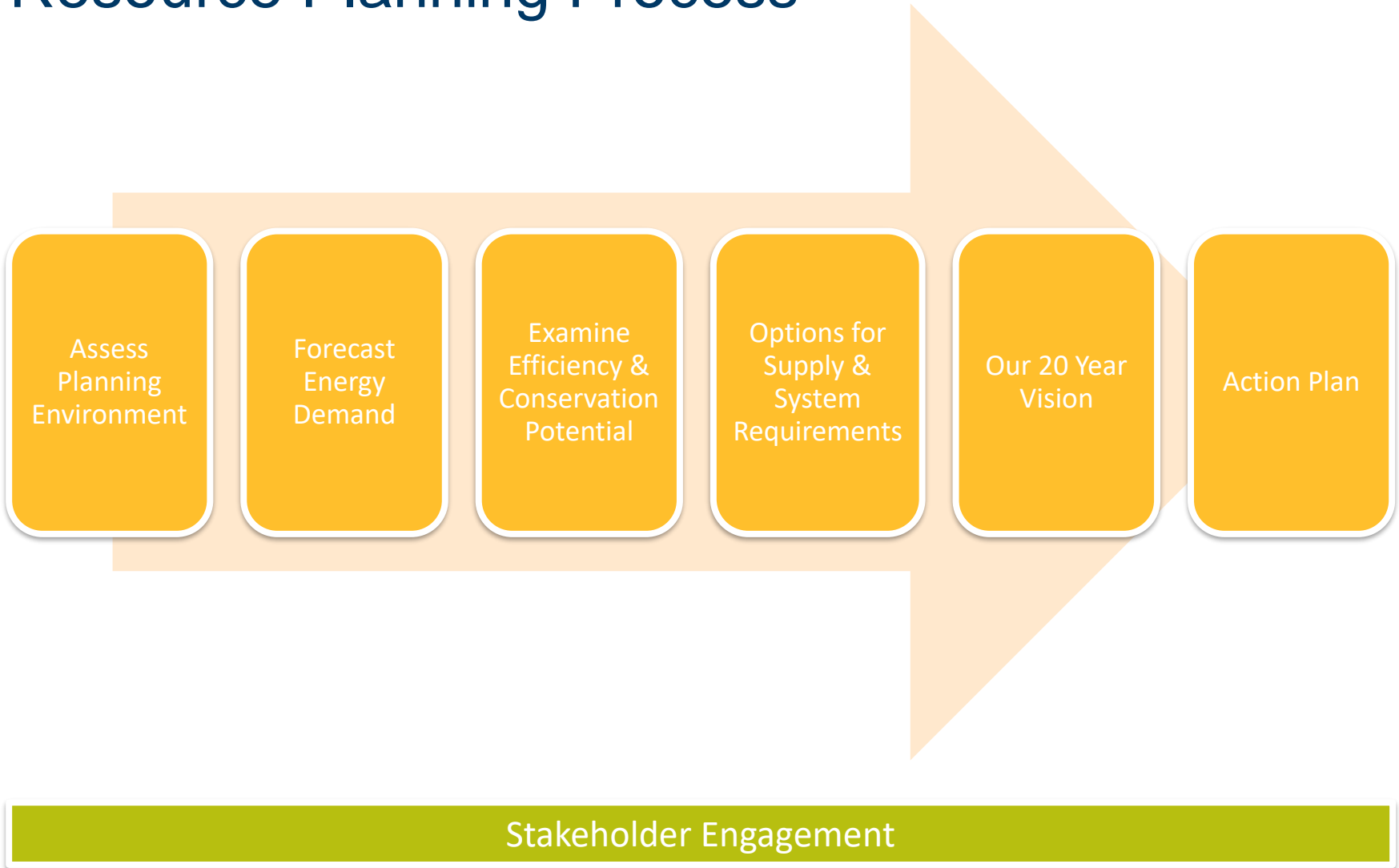
Communities

**Indigenous
Communities**

**General Public /
Customers**

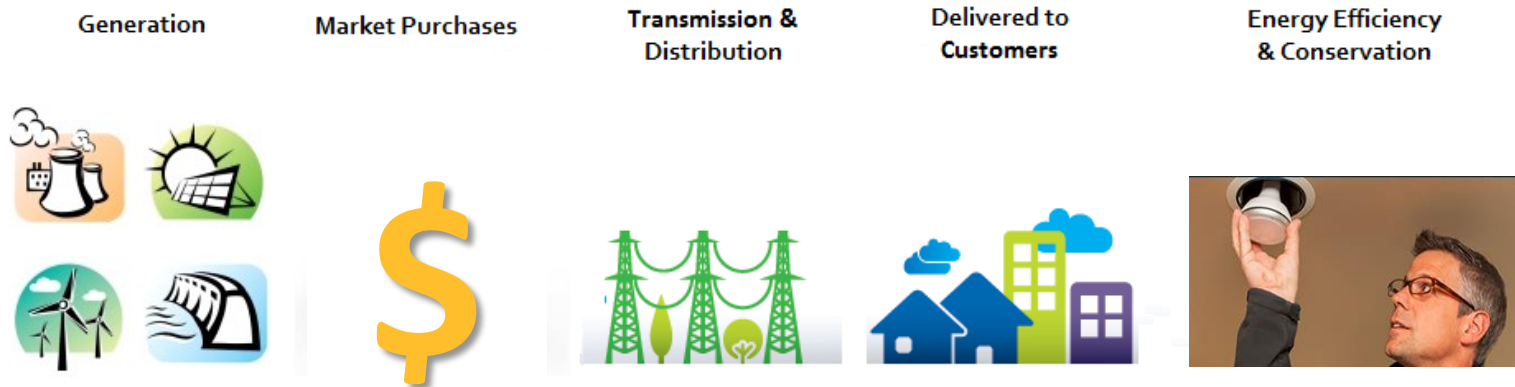
**Resource
Planning Advisory
Group (RPAG)**

Resource Planning Process



Gas vs. Electricity Resource Planning

Electricity



Natural Gas



Previous Long Term Gas Resource Plan

- The last plan was submitted to the BCUC in **December 2017**. The BCUC accepted the plan in February 2019.
- Available on FortisBC website under About Us > Regulatory Affairs
- The next plan will be submitted to the BCUC in **March 2022**.



FortisBC 2017 Long Term Gas Resource Plan



2017 Long Term Gas Resource Plan

Overview of the Action Plan

1. Energy planning environment
2. End-use demand forecasting (annual/peak)
3. Securing reliable, cost effective long term gas supply
4. Monitoring and evaluating system expansion needs
5. Applications for near-term system requirements
6. Implement Natural Gas for Transportation (NGT) initiatives
7. Apply for Conservation & Energy Management (C&EM) funding/plan
8. Request funding to support innovative technologies

2017 Long Term Gas Resource Plan

Overview BCUC Directives (Order G-39-19)

- Demand forecasting approach/method
- Demand-side Management (DSM) scenario analysis
- CleanBC and GHG reduction targets
 - Address impacts to FEI of energy efficient buildings, renewable gas, industrial electrification, clean transportation, and other government initiatives
- Impact of DSM in deferring infrastructure
- Security of supply concerns
- File the next LTGRP on or before March 31, 2022

Questions for Clarification



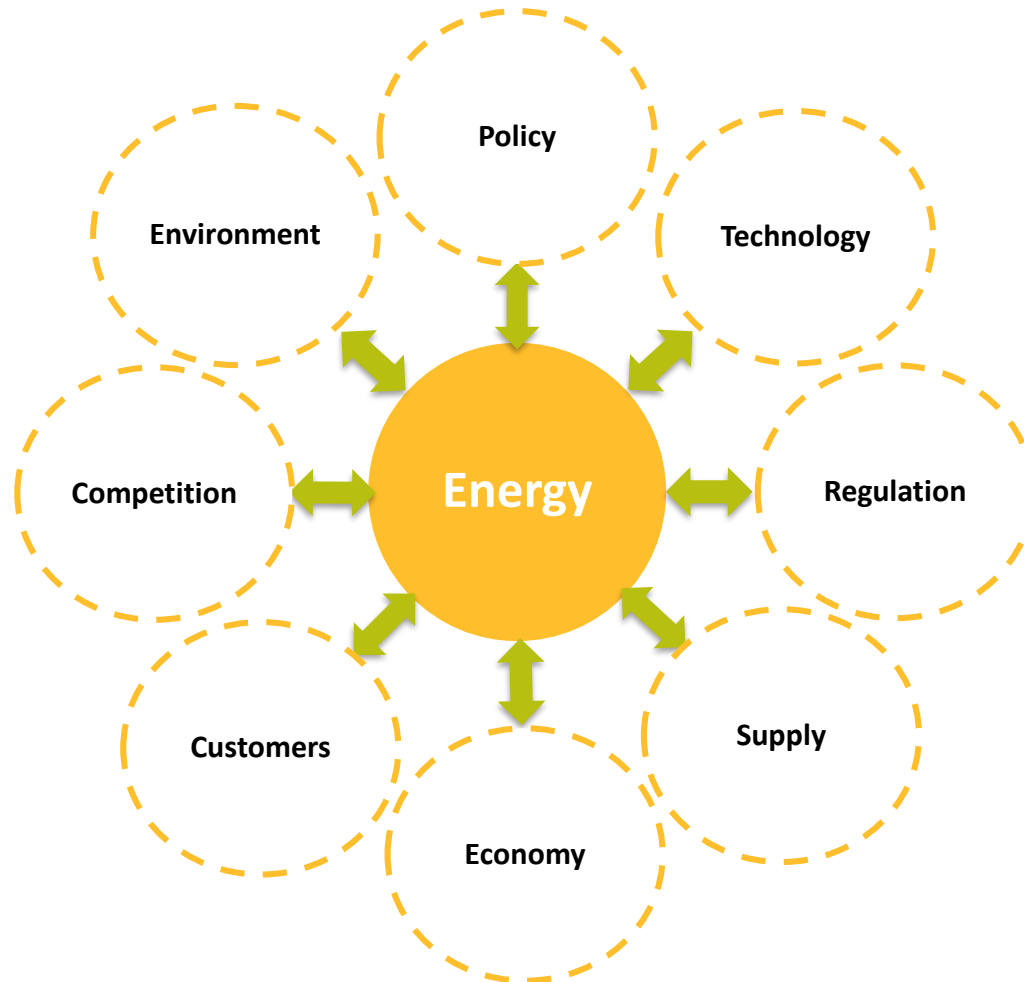
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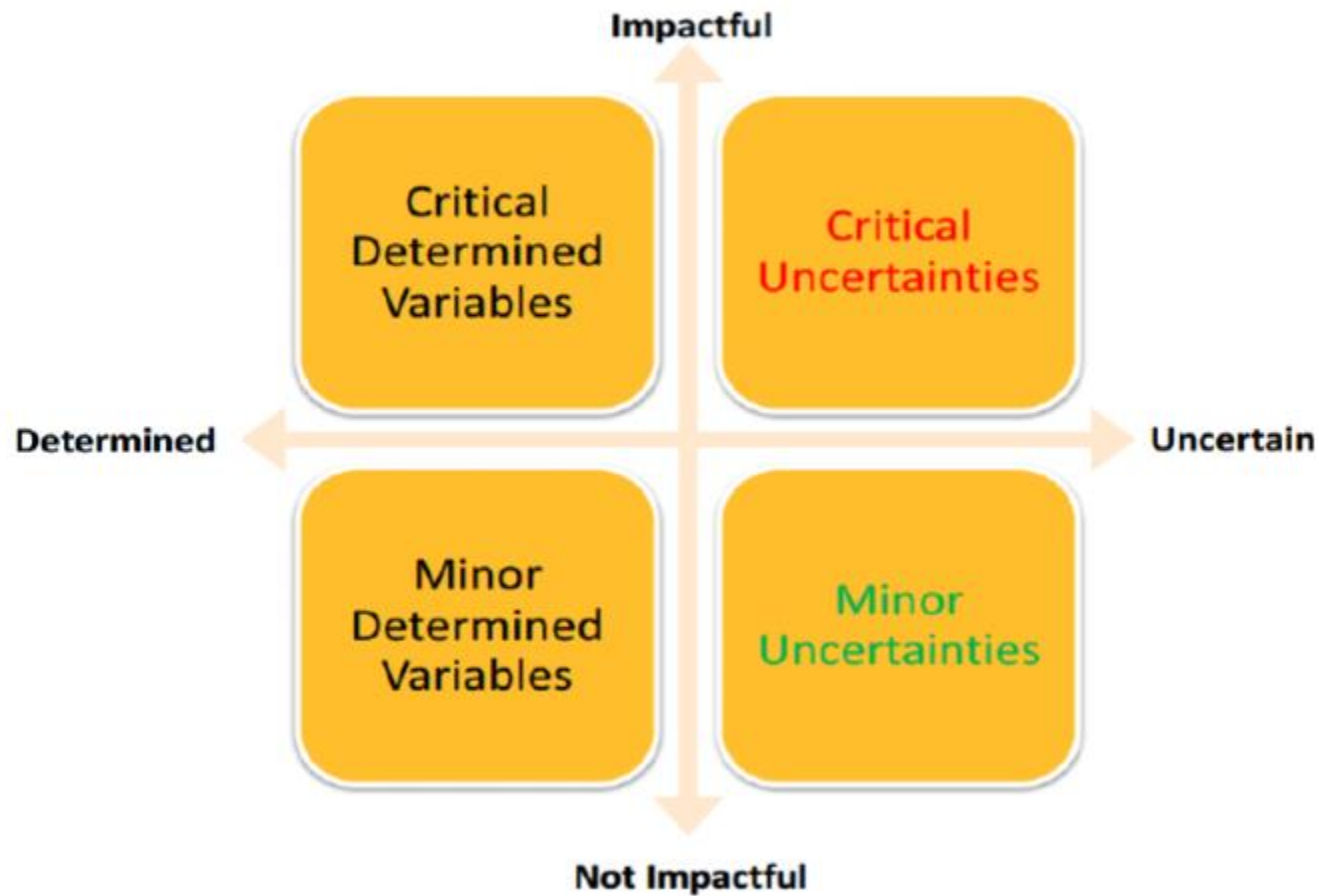
Energy Planning Landscape in BC



Energy Planning Framework



Identifying the Critical Uncertainties



2022 LTGRP Critical Uncertainties

Transportation

- On-Road Market Share
- Off-Road Market Share
- Marine Market Share – Domestic & International

Energy & Climate Policy

- Carbon Price
- New Construction Codes
- Retrofit Codes
- Appliance Standards
- Fuel Switching Mandates & Incentives

Distributed Energy Technologies

- RNG – Production Potential & Cost
- Hydrogen – Production Potential & Cost
- Carbon Capture, Storage & Utilization – Potential & Cost

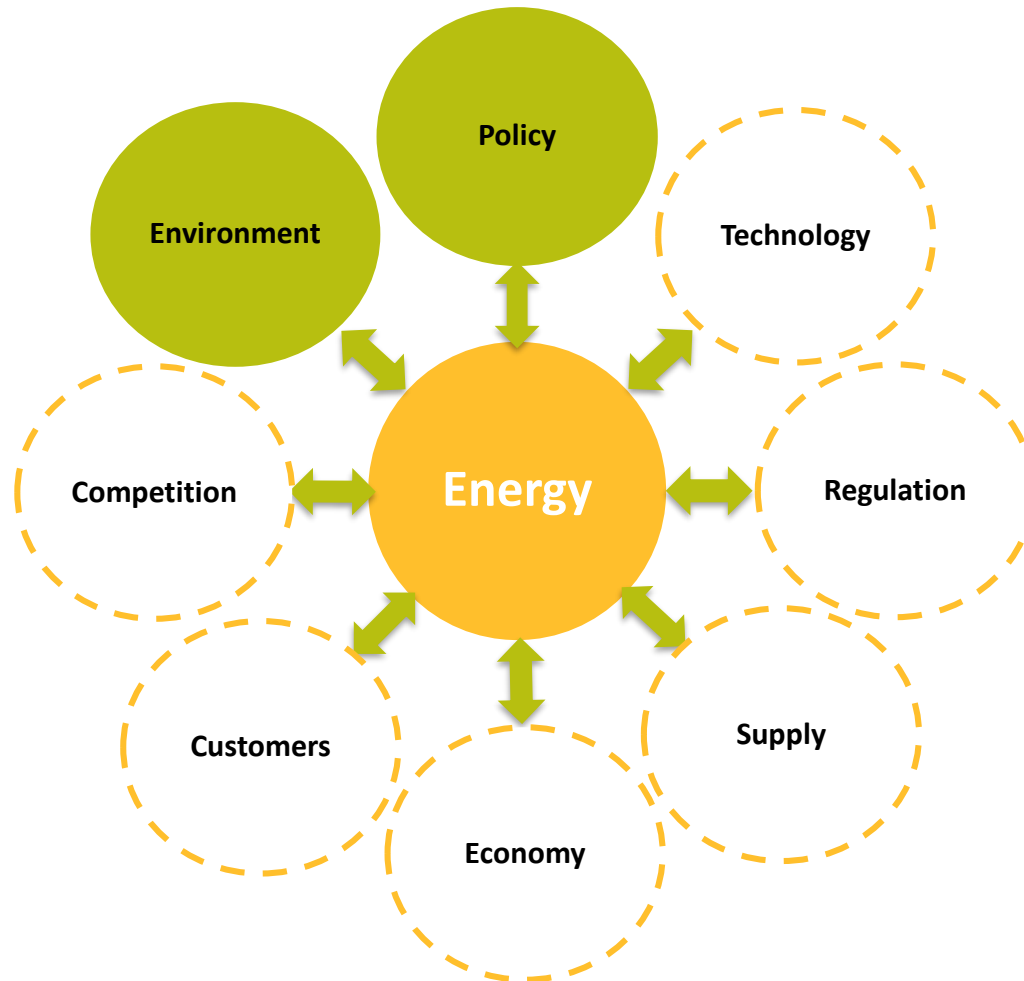
Economy

- Economic/Customer Growth
- Natural Gas Price
- LNG Exports

Questions for Clarification

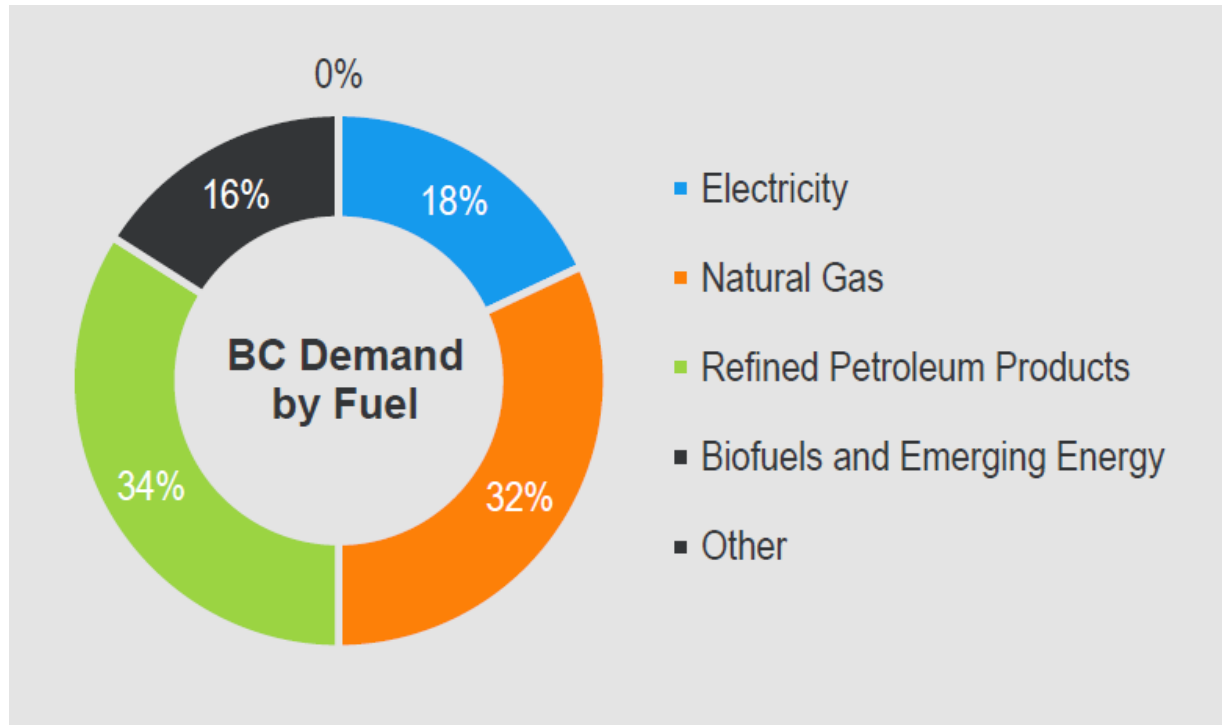


Energy Planning Framework



Energy Demand in BC by Fuel

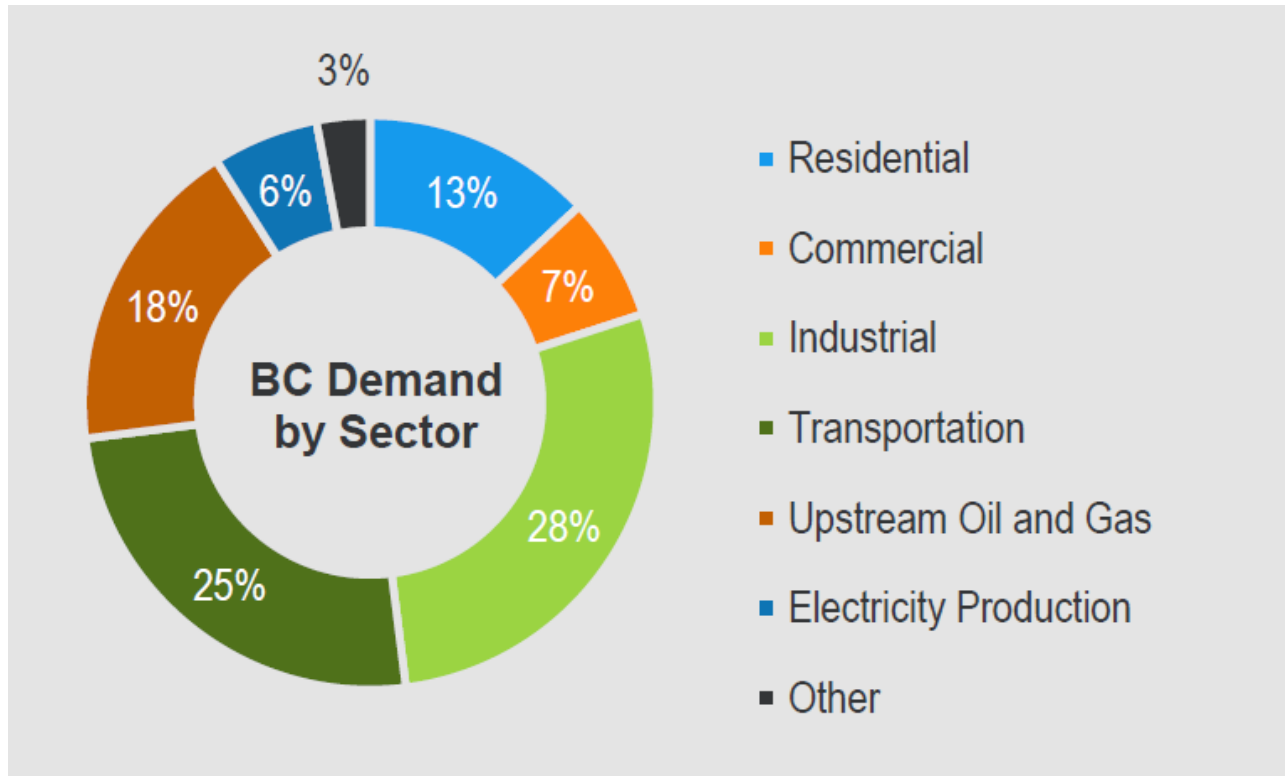
Refined petroleum products account for largest share



Source: Canada Energy Regulator – Canada's Energy Future 2019 and CanESS (CANSIM)

Energy Demand in BC by Sector

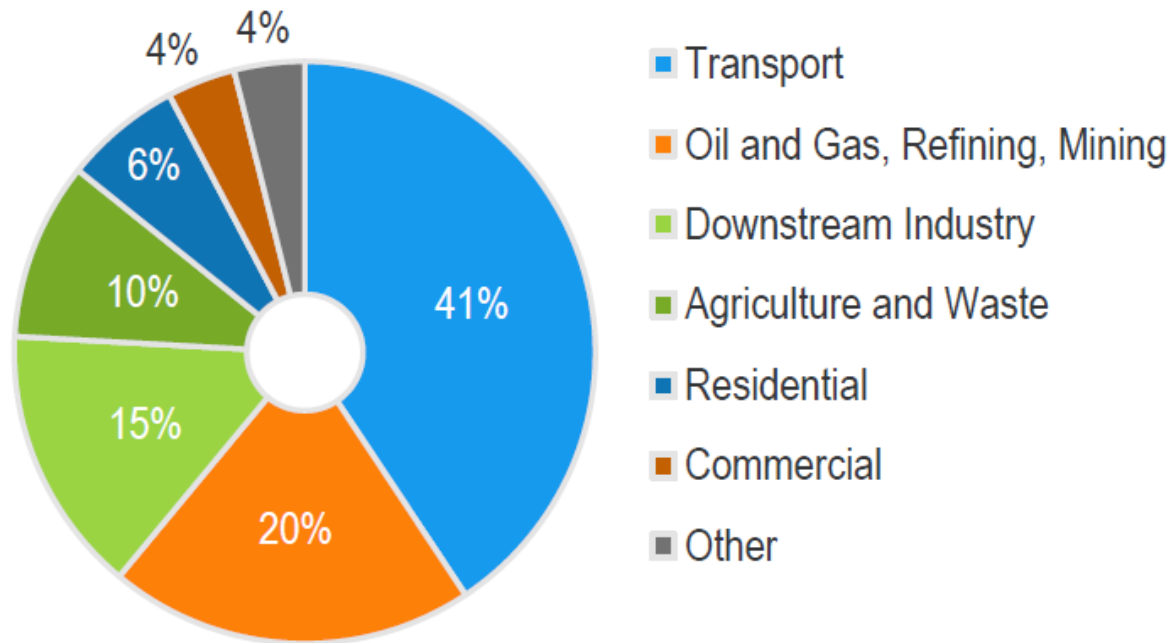
Industry consumes a significant amount of energy



Source: Canada Energy Regulator – Canada's Energy Future 2019 and CanESS (CANSIM)

GHG Emissions in BC by Sector

Industry & transportation are the biggest contributors



Source: BC GHG Inventory

Clean Growth Pathway to 2050

Sharing goals to lower GHGs and drive economic growth

FortisBC has always been:

- offering solutions to help customers reduce GHGs
- collaborating with industry, public, government and regulators
- helping inform the CleanBC consultation process



4 Pillars of the Clean Growth Pathway to 2050



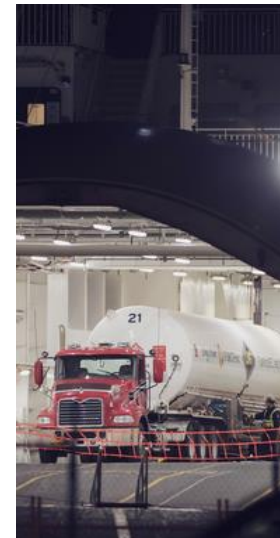
**Energy
efficiency**



**Renewable
gas**



**Zero and
low carbon
transportation**



Global LNG

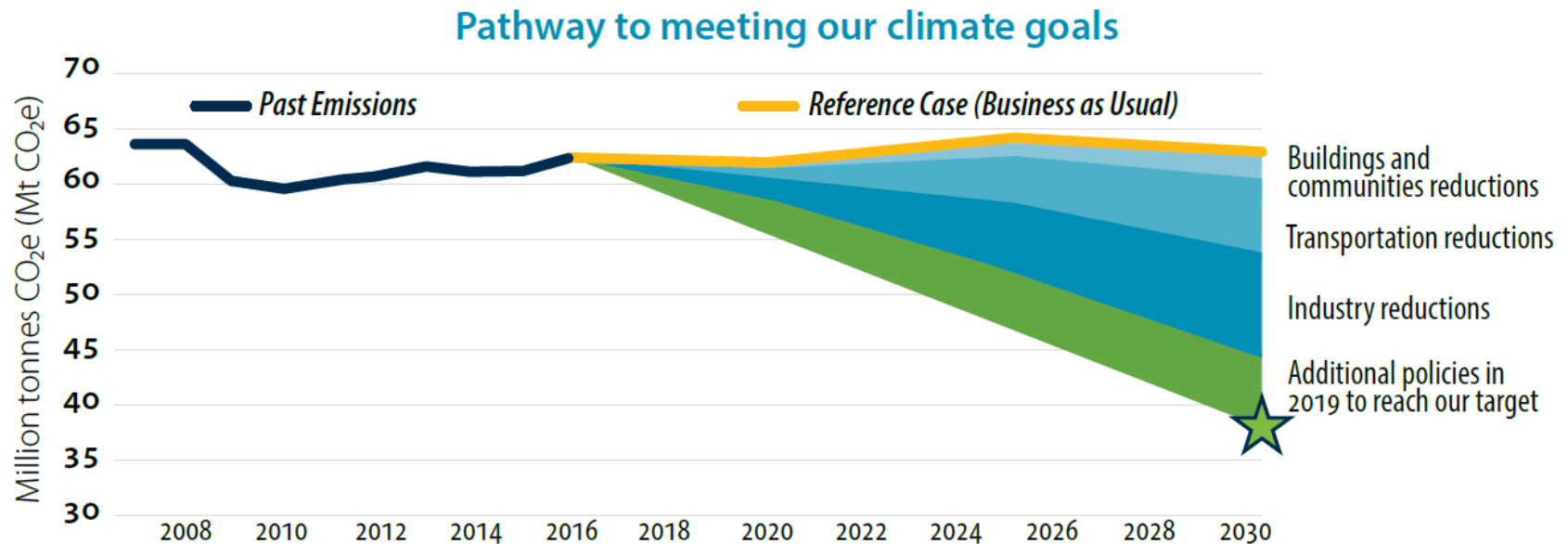
CleanBC

- CleanBC is the provincial climate and economic plan to achieve greenhouse gas emissions by 2030.
- Plan outlines specific actions in the following categories:
 - Better buildings
 - Reducing pollution from industry
 - Cleaner transportation
 - Reducing emissions from waste
 - Clean energy jobs
- FortisBC is a critical partner to achieve the BC Government's goals.



CleanBC GHG Emissions Reduction Target

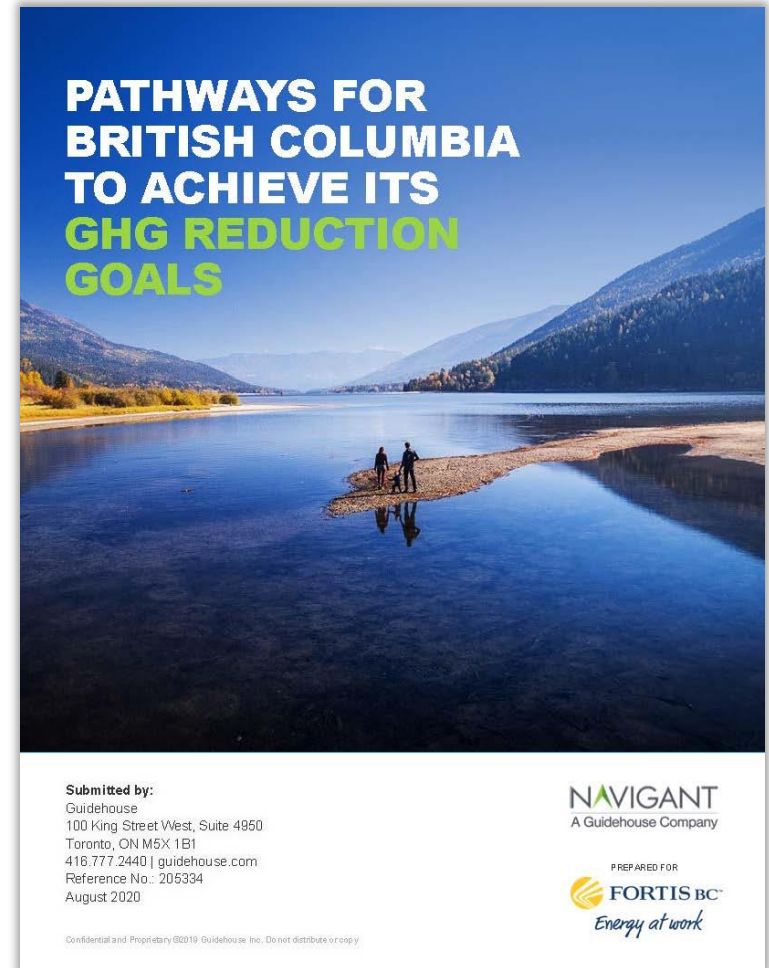
40% reduction in GHG emissions by 2030



Alternative Pathways

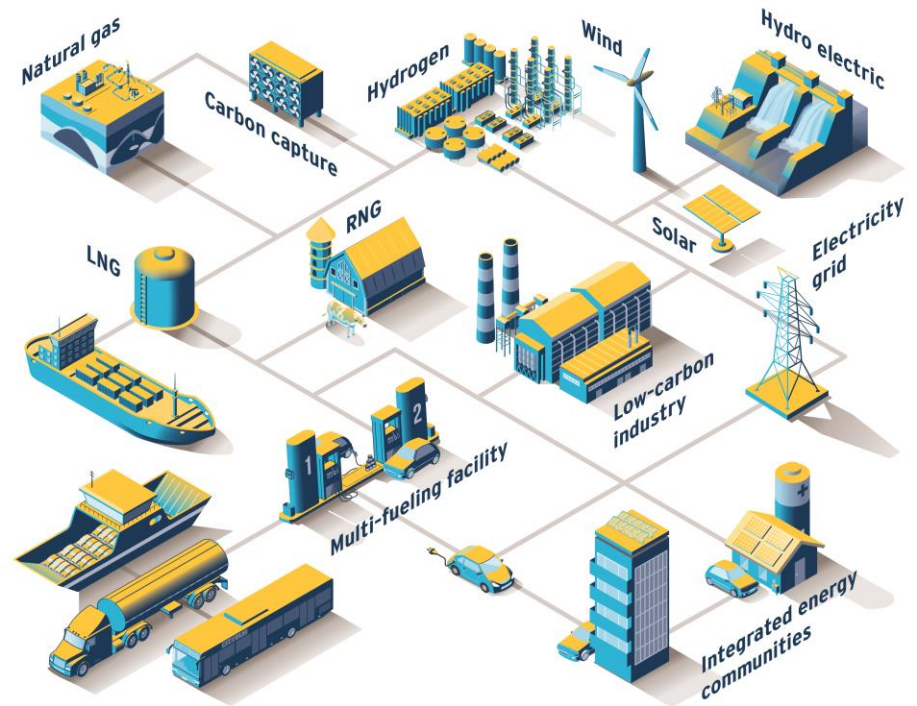
FortisBC commissioned
Guidehouse to:

- develop pathways for BC to achieve an 80% GHG reduction
- compare two options to get there including Electrification and Diversified Pathways
- analyze GHG reductions, costs, reliability and risks to British Columbians



A Diversified Approach to Climate Action

- Achieves the Province's **80%** reduction target
- Reduces de-carbonization costs
- Considers peak day demand and related infrastructure
- Provides resiliency and reliability
- It's not either/or, **it's both/and**



Measuring our Progress to 2050

We set an ambitious emissions reduction target

Our **30BY30 target** will:

- reduce our customers' GHG emissions by **30%** by **2030**
- be a milestone that we measure our progress by



Energy
efficiency



Renewable
gas

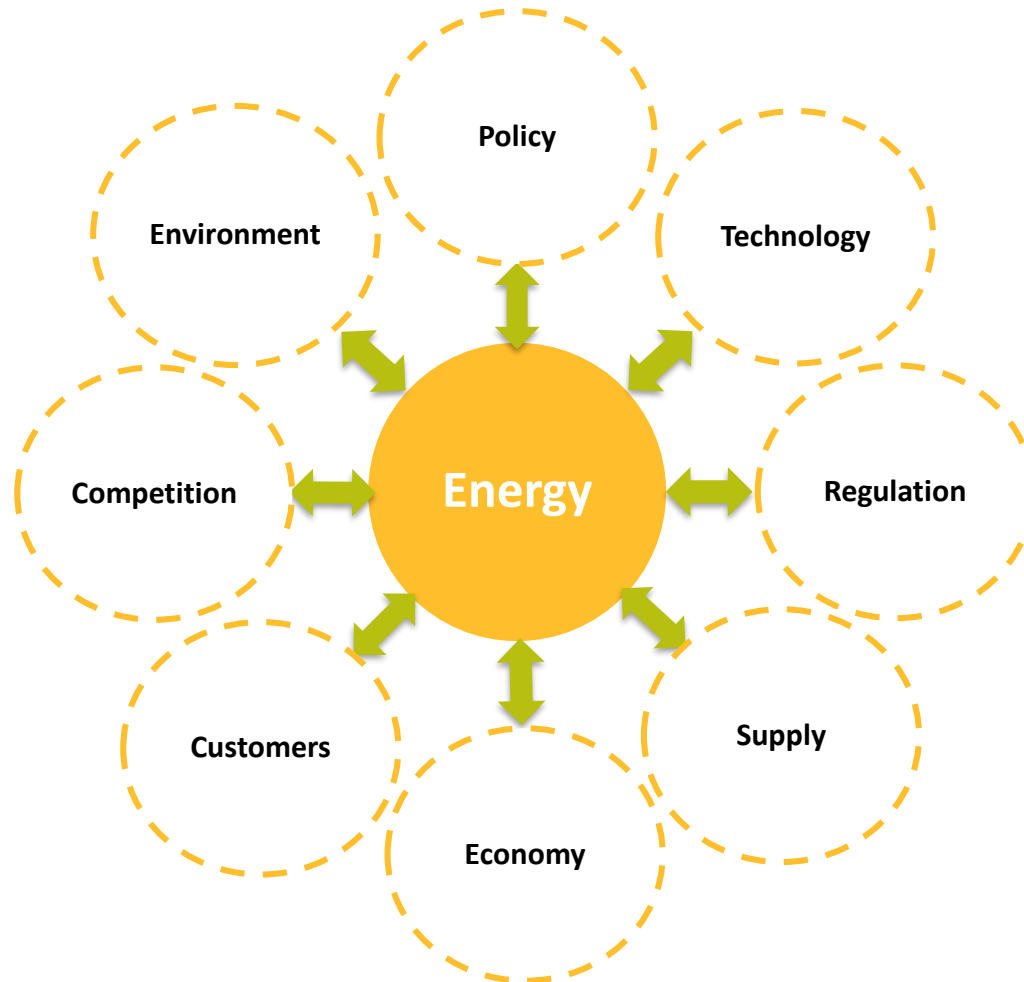


Zero and
low carbon
transportation



Global LNG

Energy Planning Framework



Upcoming Session

BC's GHG Reduction Pathways Study & Implications for FortisBC's Long Term Resource Plans

Friday, February 12th

8:00-11:00am PST

Please **RSVP** by emailing irp@fortisbc.com
as soon as possible if you'd like to attend.

Questions for Clarification



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Engagement Plan for 2021



Overview of Engagement

- Active throughout 2021
- Input will only be required intermittently
- Encourage participants to make a best effort to participate
 - If other conflicts or priorities come up from time to time, we ask that you let us know if you can no longer participate or would like to designate an alternate in your place
- Approach focused on providing you with greater flexibility by utilizing electronic surveys and reducing the number of meetings

Responsibilities for RPAG and FortisBC

RPAG Members

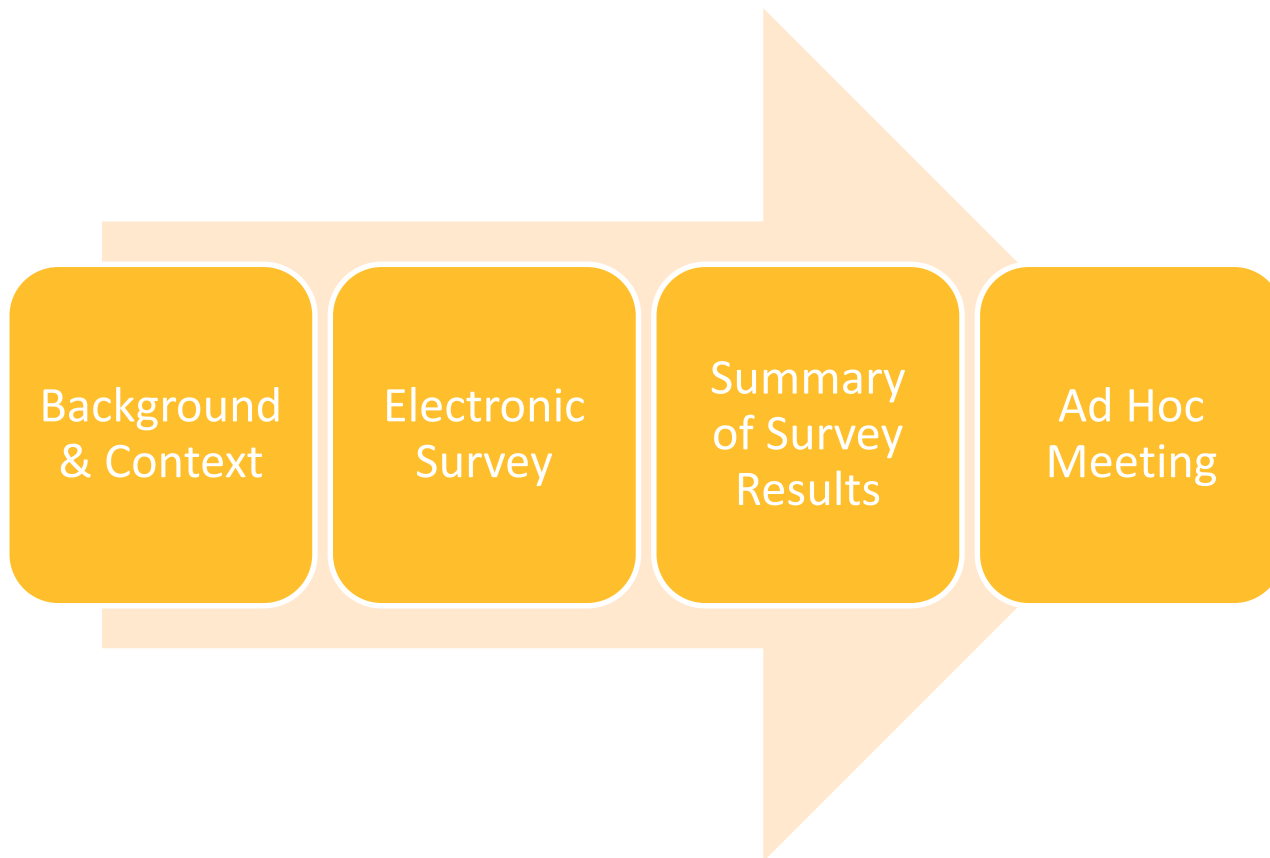
- Provide feedback and advice
- Raise issues and suggest solutions
- Bring forth ideas beneficial to all
- Keep topics within the scope of the LTGRP
- Respond to electronic surveys
- Attend meetings as needed or send an alternate (on an occasional basis only)
- Review preparation materials in advance of meetings or as associated with electronic surveys

FortisBC

- Circulate electronic surveys and survey results
- Host meetings, as needed, and lead discussions
- Set forth agendas and topics for discussion
- Provide preparatory materials in advance of meetings and electronic surveys
- Record and consider suggestions from RPAG members
- Provide planning updates and manage communications

What to expect with electronic surveys?

In order to receive the electronic surveys and provide your input for the 2022 LTGRP, you will need to opt-in to our **Online Input Network**.



Engagement Plan for 2021

January

- Kick-off Meeting (January 25)
- Online Input Network Subscription

February

- BC's GHG Reduction Pathways Study Session (February 12)
- Demand Scenario Analysis

April

- Crowd Forecast Exercise through the Slider Tool

Engagement Plan for 2021

July

- Demand Side Management Analysis

September

- Supply Portfolio and Risks Analysis

November

- System Capacity Planning Analysis

December

- Wrap-up Meeting (Date TBC)
- Final Analysis & Input (Topic TBC)

Questions for Clarification



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Wrap-up & Next Steps



Wrap-up and next steps

- Thank you attending the Kick-off Meeting, we appreciate it!
 - We will advise you when the presentation and meeting notes will be posted online
- Don't forget to opt-in to the **Online Input Network** to receive future electronic surveys.
- If you have not done so already, remember to RSVP to **BC's GHG Reduction Pathways Study & The Implications for FortisBC's Long Term Resource Plans** session on **February 12, 2021** from **8:00 to 11:00 am PST**.
- For additional questions, contact us at irp@fortisbc.com.

Thank you



For further information, please contact:

FortisBC Integrated Resource Planning
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Follow us **@fortisbc**

