



# Whitehorse Power Centres

# With thanks and gratitude

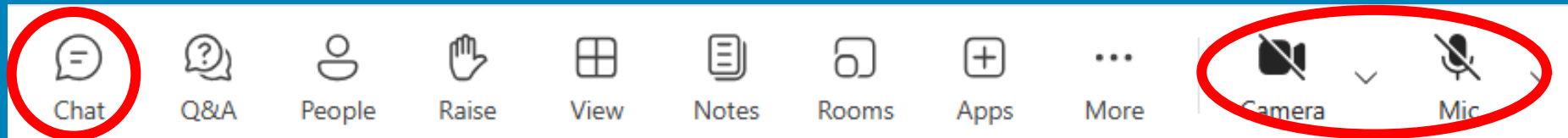
Yukon Energy recognizes that this project takes place on the Traditional Territories of the Kwanlin Dün First Nation and the Ta'an Kwäch'än Council.

# Today's discussion

- Introductions
- Background
- What is being proposed
- Location selection
- Overview of sites
- Timeline and next steps
- Q&A

## Feedback methods

- Site-specific comments:
  - Use the Q&A meeting feature
- General comments:
  - Use the meeting chat
  - Wait for the Q&A at the end of the meeting
  - Email us at [yec.wpc@stantec.com](mailto:yec.wpc@stantec.com)
- More discussion:
  - In-person meeting Aug 26<sup>th</sup>, 6pm at the Sternwheeler



**Share general comments or questions, to be addressed at the end of the meeting.**

**Keep your camera and microphone off, until prompted to turn them on while asking a question**

# Introductions

## Stantec

### ENGAGEMENT SUPPORT

- Amanda Haeusler
- Jeffrey McLean

## Yukon Energy

- Tom Buzzell  
*Director, Partnerships*
- Amy McClintock  
*Manager, Resource Planning*
- Lisa Wiklund  
*Manager, Community Relations*
- Tim Hogan  
*Contractor, Project Management Support*

# Background

# Who we are



”

Based on a 25-year average, over 90% of the electricity we generate is renewable.

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**Yukon Energy is a publicly-owned electrical utility established in 1987.**

**We operate as a business, at arm's length from the Yukon government, to generate and transmit electrical energy in the Yukon.**



# The Yukon's electricity system

## what keeps the lights on

Despite having an aging and isolated grid, most of the electricity we produce in the Yukon is renewable hydropower, but we also use thermal resources when we need to.



What are thermal resources?

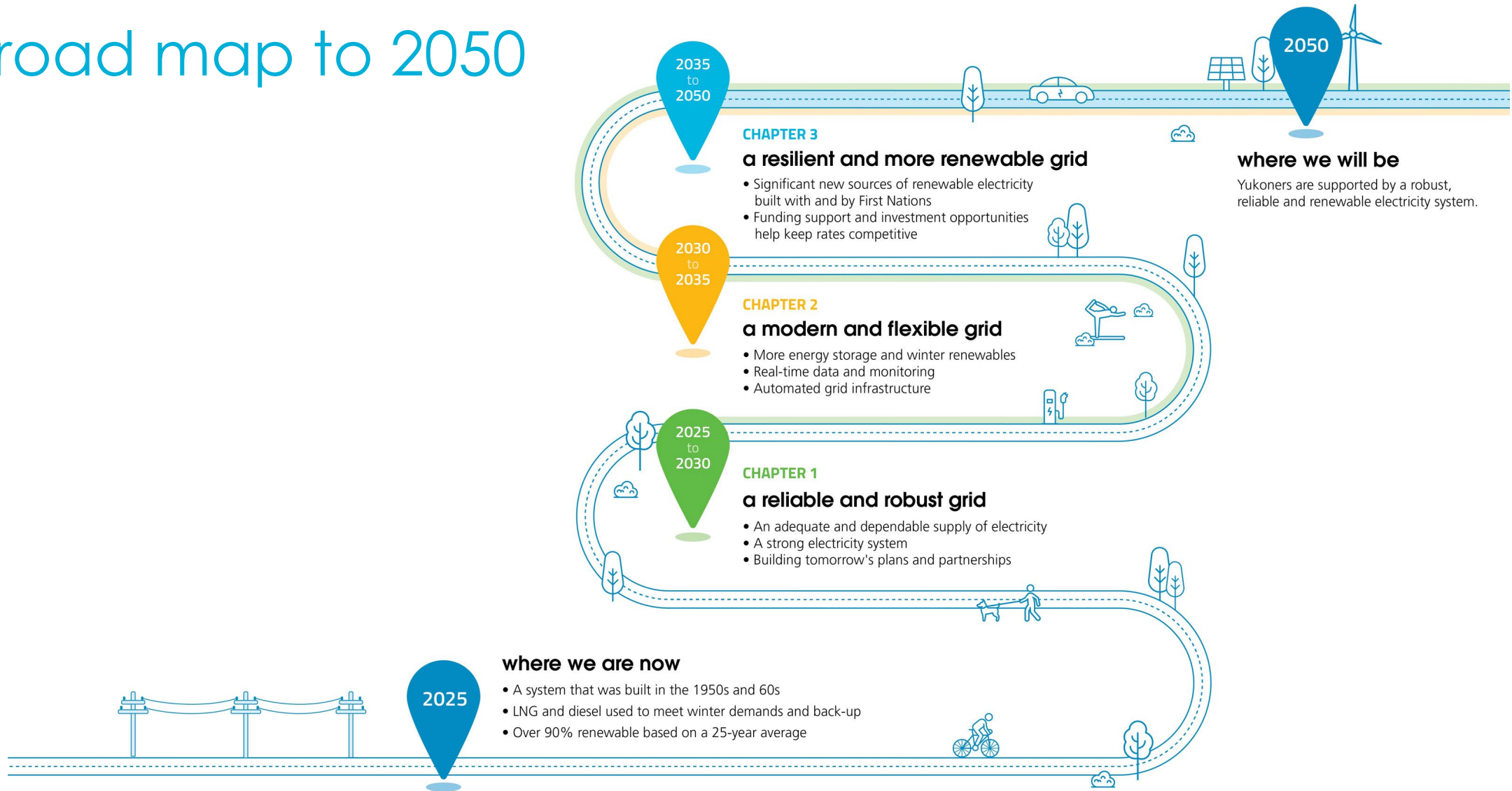
When we say thermal, we mean LNG and diesel, or fossil fuel-based electricity generation.





# Our vision for the future

## a road map to 2050



# Project scope

## Implementing Yukon Energy's Road Map to 2050

Set us up for a more resilient, renewable, and modern electricity future by:

- increasing thermal (diesel or LNG) capacity to meet winter demand
- building a new substation to support future growth and system upgrades
- developing more transmission and distribution infrastructure to support modernization of the system

# The need

This project will help us to:

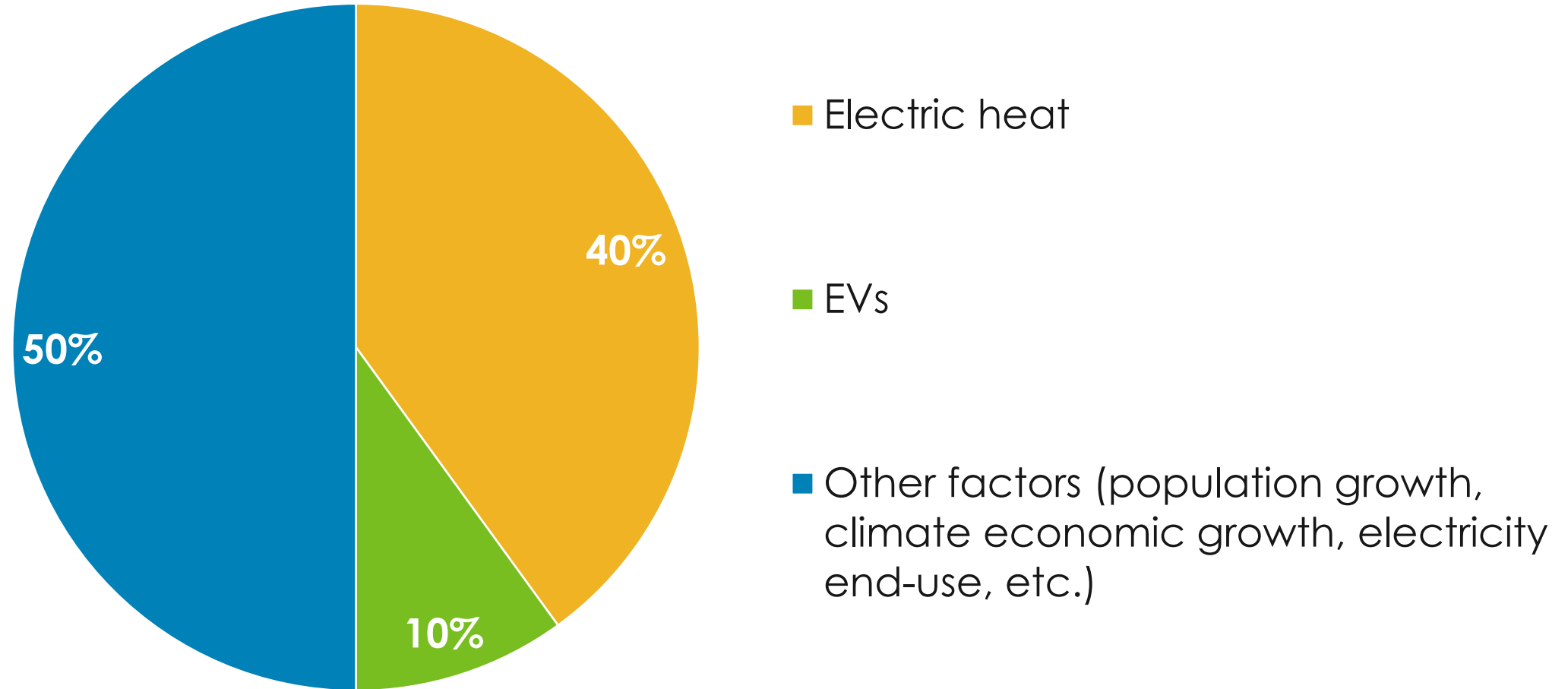
Meet growing electricity demand reliably, particularly in Whitehorse

**+ 40 % increase**

in demand between 2020 and 2030

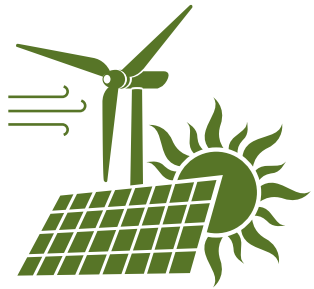


# Contributing factors to increasing electricity demand



# The need

This project will also help us to:



Safely integrate more community wind and solar resources



Respond to evolving customer needs



Reduce reliance on rental diesel generators



Respond more effectively to outages

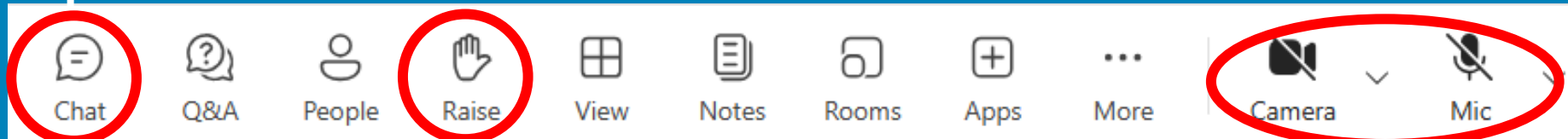
# Question break



Share general comments or questions, to be addressed at the end of the meeting.

## Share your thoughts

1. Provide your comments today
2. Learn more  
[yukonenergy.ca/wpc](https://yukonenergy.ca/wpc) or  
[YESAB online registry \(yesabregistry.ca\)](https://yesabregistry.ca),  
Project # 2025-0108
3. Submit a question or comment  
On the website or by email  
[yec.wpc@stantec.com](mailto:yec.wpc@stantec.com)
4. Participate in the YESAB engagement process



Please 'raise your hand' to indicate you have a question or comment

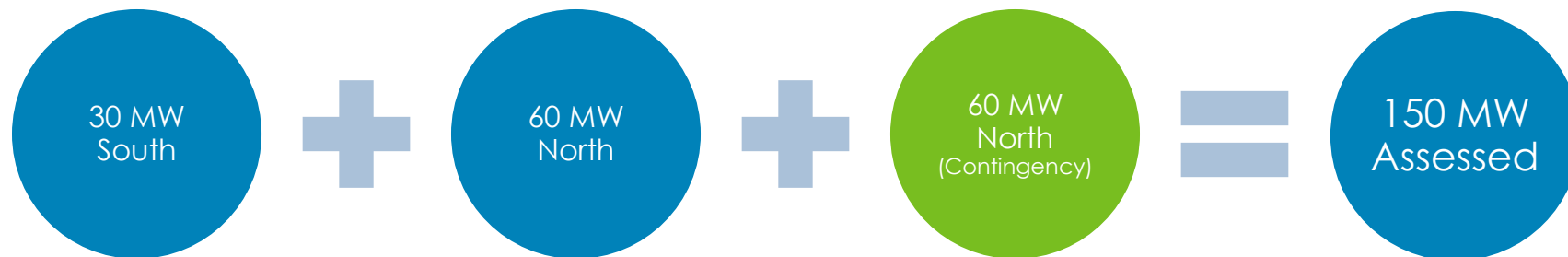
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# What is being proposed



# Whitehorse Power Centres

- Build two new thermal (LNG or diesel) power centres
- Build one new substation
- A site for a potential third thermal power centre, to be used as a contingency, will also be assessed
- Power centres developed with space for potential future batteries and other resources



# Project phases

## Phase 1



### South power centre build

Construct south power centre with 15 MW of capacity.

**EXPECTED IN-SERVICE DATE**

**Winter 2027**

## Phase 2



### North power centre build

Construct north power centre with 30 MW of thermal generation.

Construct substation and transmission infrastructure.

Add incremental capacity to the south power centre as needed (up to an additional 15 MW) to meet load growth in the Whitehorse area while the north power centre is being built.

**EXPECTED IN-SERVICE DATE**

**Winter 2030**

## Phase 3



### Expand power centres

Add incremental capacity to the north power centre and/ or construct a second north power centre if expansion of existing north power centre is not feasible, or demand for power is expected to exceed capacity limits at the north site.

**EXPECTED IN-SERVICE DATE**

**Winter 2035**

# Location selection

**Only four sites will be selected for inclusion in the Yukon Environmental and Socio-economic Assessment Board Project Proposal**

# Project locations

- First Nations, Yukon government or City of Whitehorse land
- Improve reliability of electricity system
- Are close to major highways
- Are on or adjacent to previously developed land

## North power centre options

- 1 KM 232 North Klondike Highway
- 2 Ta'an Kwäch'än Council (TKC) Deep Creek\*
- 3 Haeckel Hill Gravel Pit
- 4 Kwanlin Dün First Nation (KDFN) Kulan\*
- 5 Waste Management Facility

## Substation site / location

- 6 Long Lake Road Substation

## South power centre options

- 7 McLean Lake Road
- 8 Copper Haul Road
- 9 Whitehorse Copper Mine
- 10 KDFN Sima Industrial Area\*
- 11 KDFN Lorne Road\*

\*on Settlement Land

### Legend

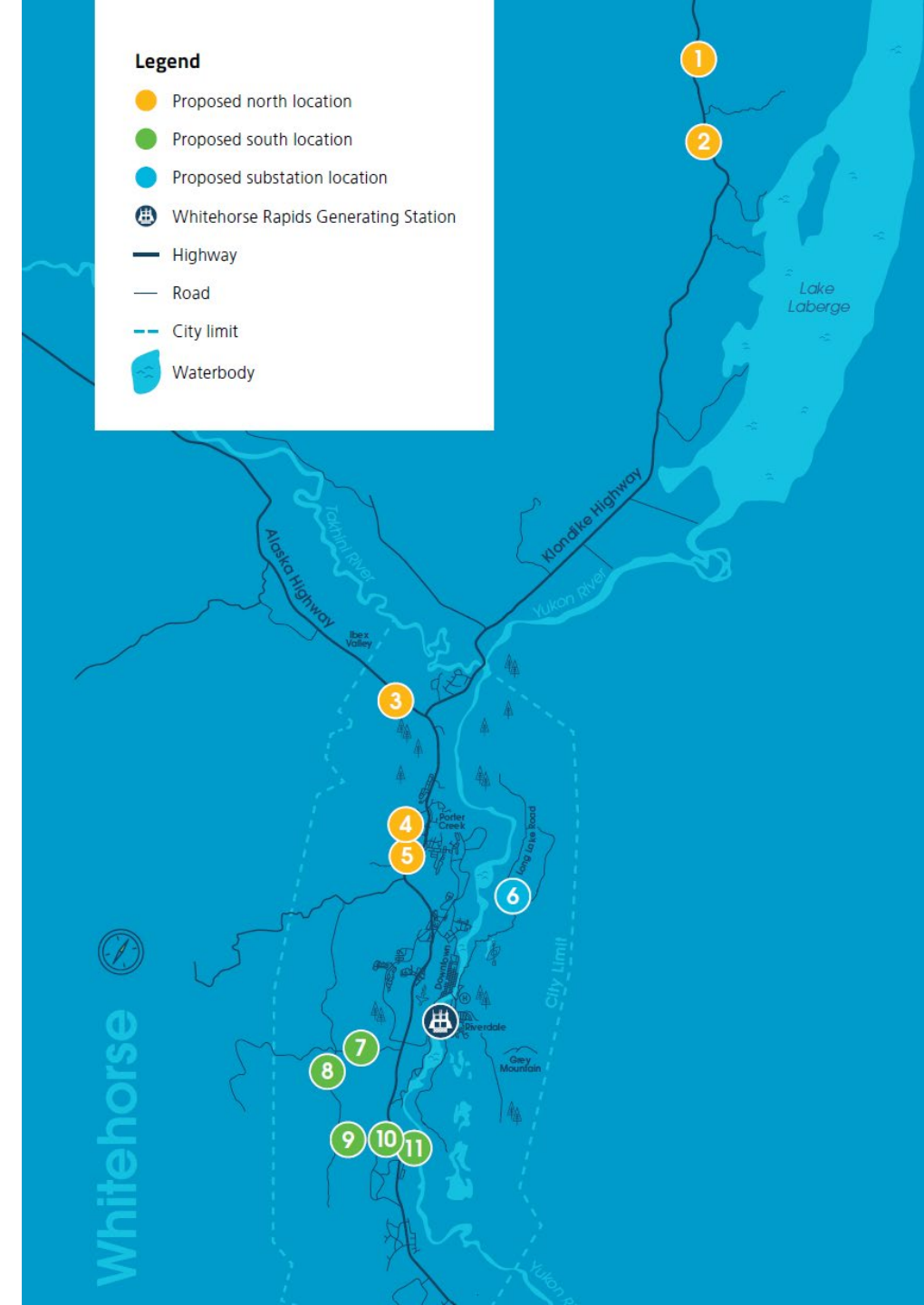
- Proposed north location
- Proposed south location
- Proposed substation location
- Whitehorse Rapids Generating Station
- Highway
- Road
- City limit
- Waterbody

We need 2 sites in the north (one as contingency)

We need 1 site in the south

# Site evaluation criteria

- access and land ownership
- technical feasibility
- life cycle costs
- environmental impacts
- heritage concerns
- impacts on nearby residents or land users

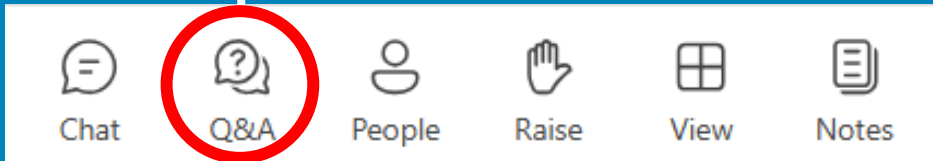


# Overview of sites

**Q: Are there any major concerns with any of the proposed locations?**



Share feedback about specific sites.  
Each Question includes the site number  
and name.



Click here to enter  
your feedback

Option to comment  
anonymously

Q&A



Haeusler, Amanda

7m ago



Please share any concerns you have with  
the following site.

1. KM 232 North Klondike Hwy



**Anonymous** 2m ago  
Sample concern

Collapse

Comment as: Haeusler, Amanda

Comment on this discussion

Comment anonymously ☒

Your comment will be posted  
anonymously and cannot be tracked by  
your organization.

# Overview of sites

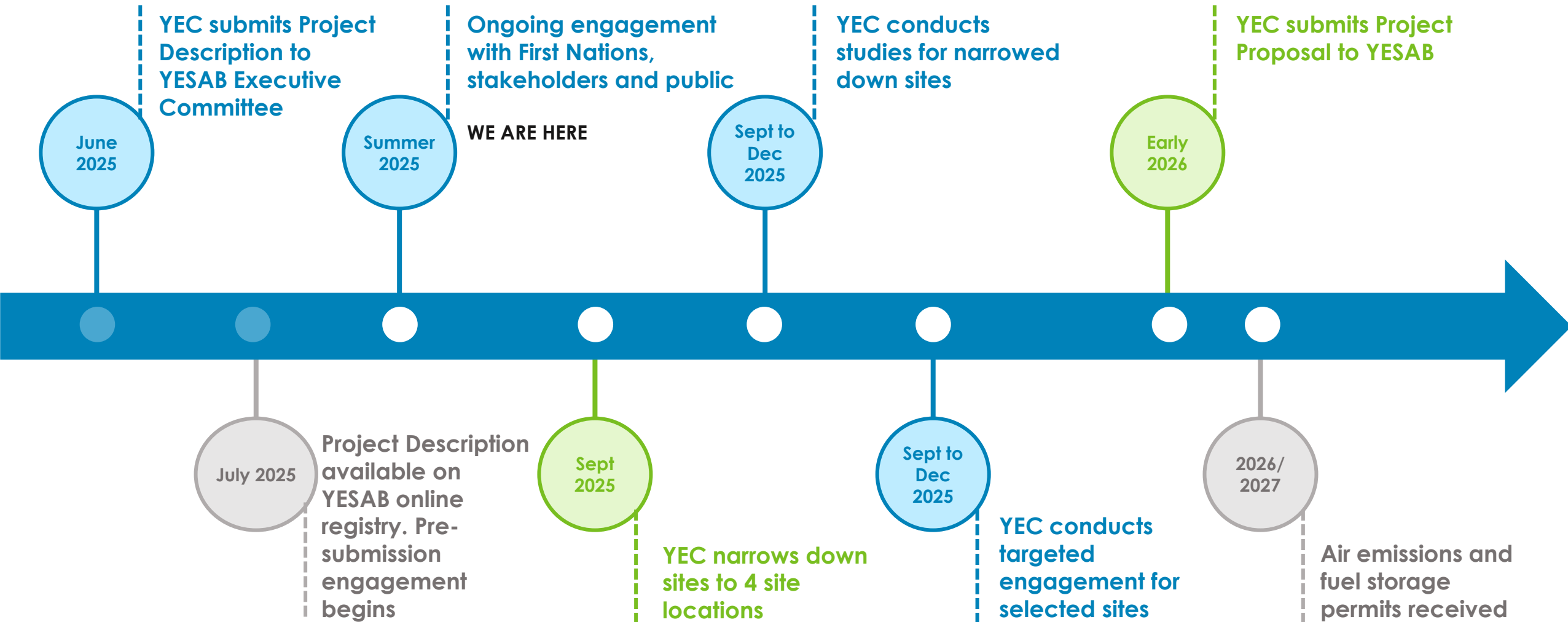
**Q: Are there any major concerns with any of the proposed locations?**

**[Google Maps link](#)**



# Timeline and next steps

# Overall schedule



# Share your thoughts

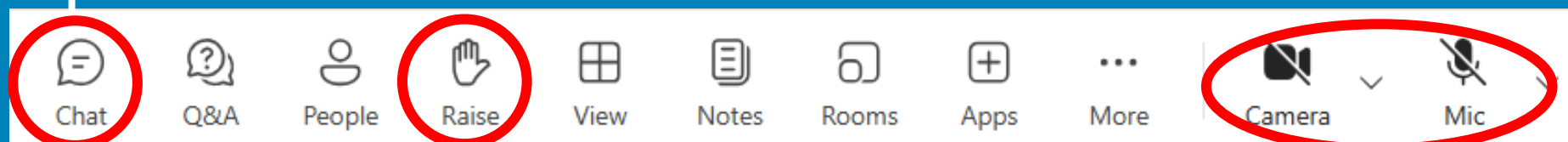
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4. Participate in the YESAB engagement process

## open houses

Tuesday, August 26  
**Sternwheeler Hotel** 6pm



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**Thank you for your time**



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the power of yukon