

# Collaboration for a Renewable Energy Future

Purchasing power from the Atlin Hydro Expansion Project

Andrew Hall, President & CEO, Yukon Energy

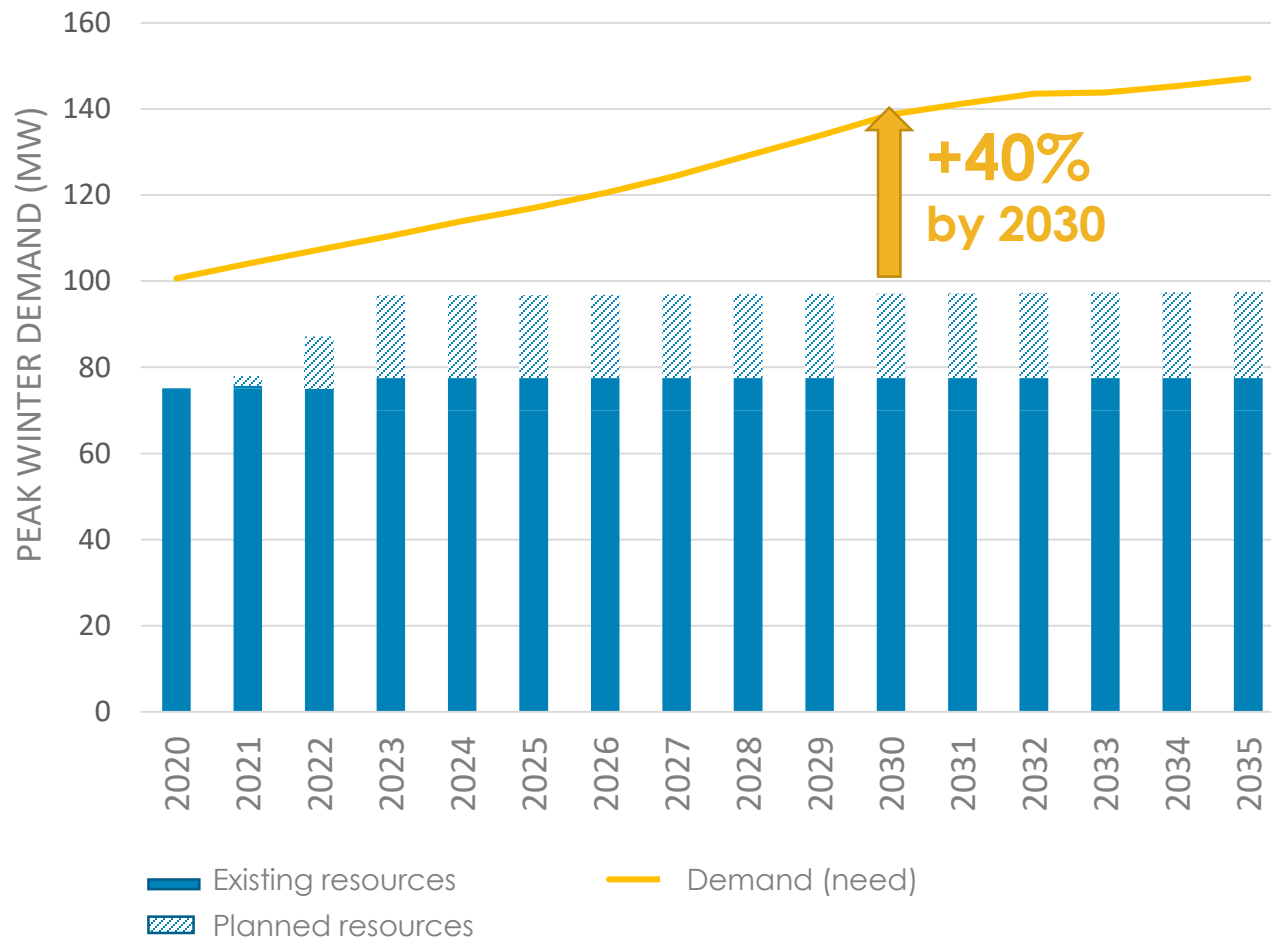
Peter Kirby, President & CEO, Taku Group of Companies

# Yukon's Clean Energy Future



**Partnerships with  
First Nations are critical in  
Yukon's energy future.**

# Meeting Growing Demands with Clean Energy



Three key projects identified



Atlin Hydro Expansion &  
Connection to Yukon

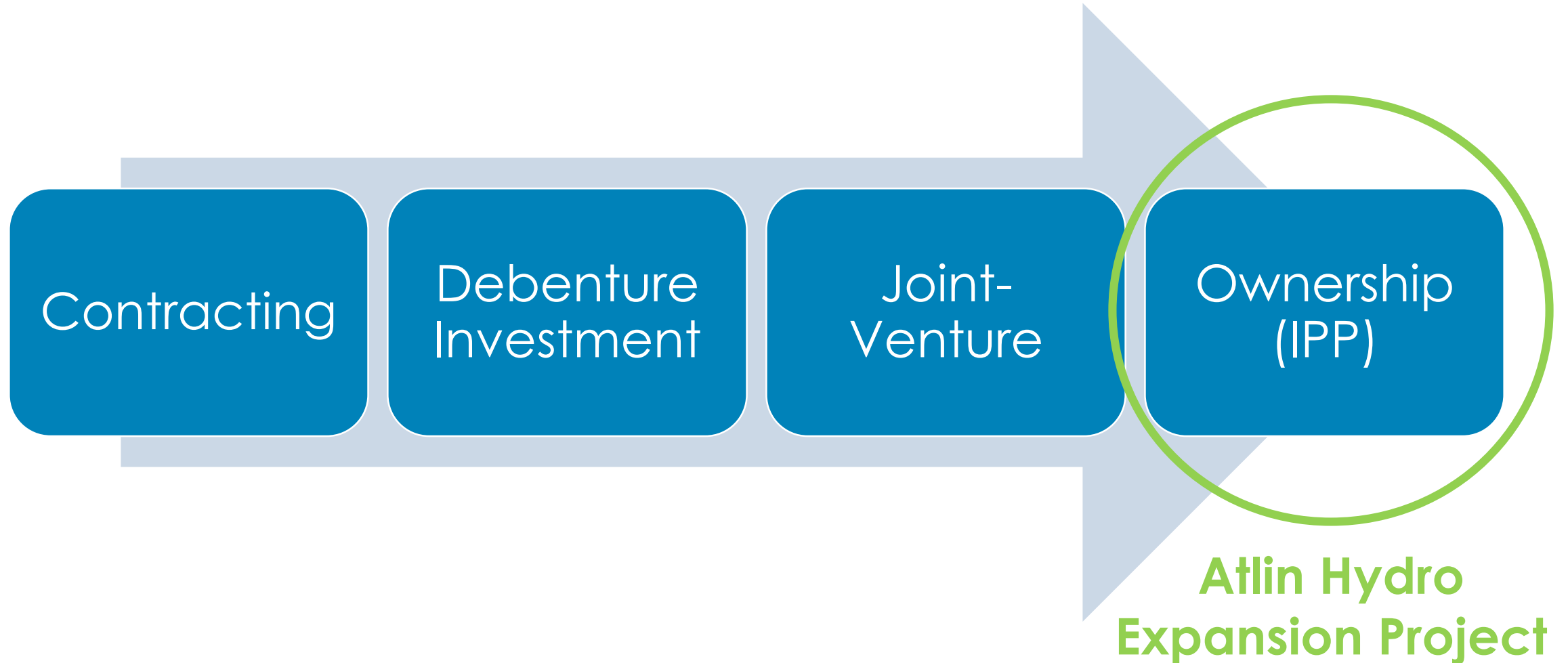


Moon Lake  
Pumped Storage



Southern Lakes  
Transmission Expansion

# Collaboration Models



# Existing Atlin Hydro Project



**2.1 MW**  
RENEWABLE  
CAPACITY FOR  
ATLIN



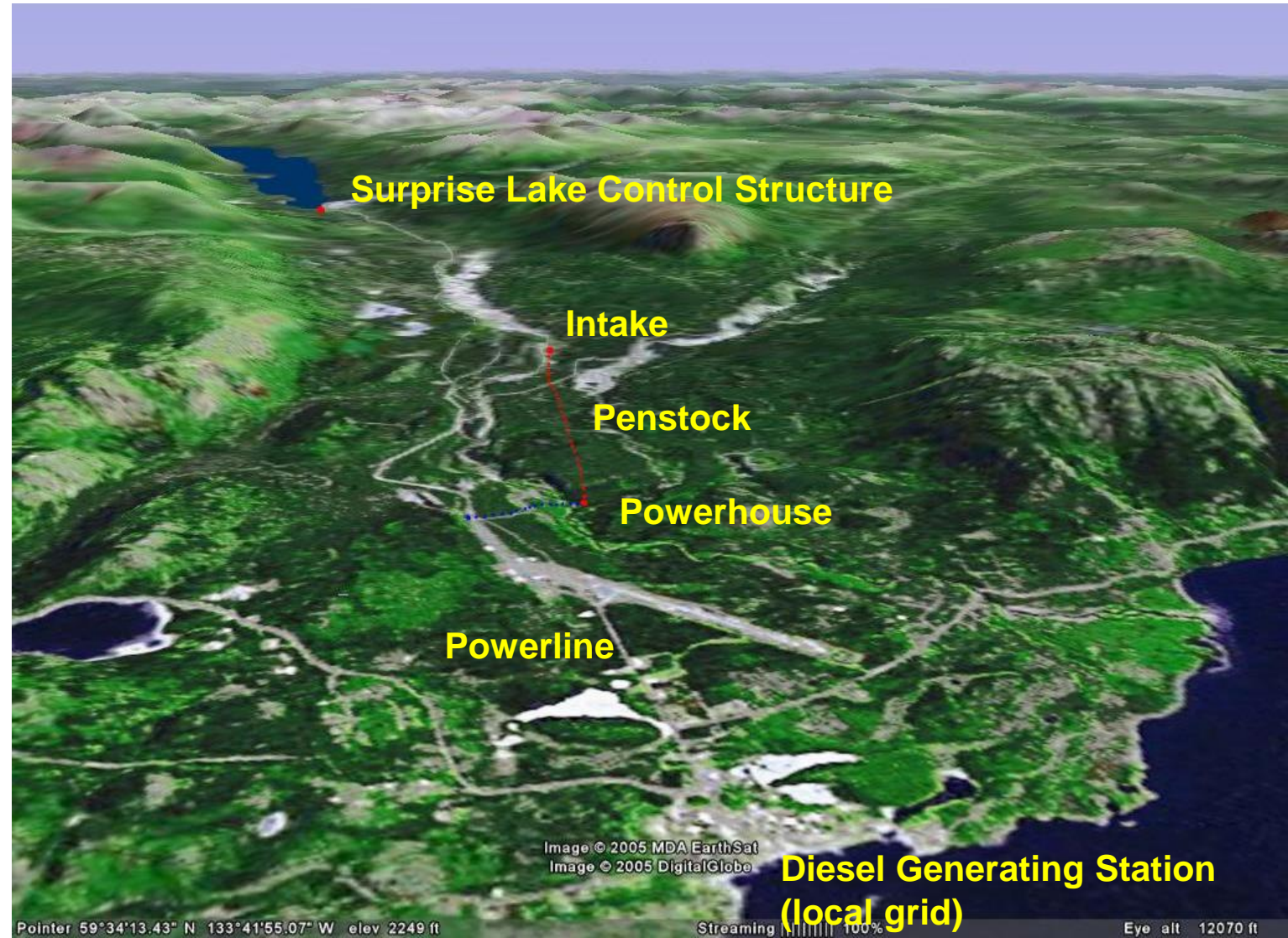
**~6 GWh**  
of annual energy

electricity used by

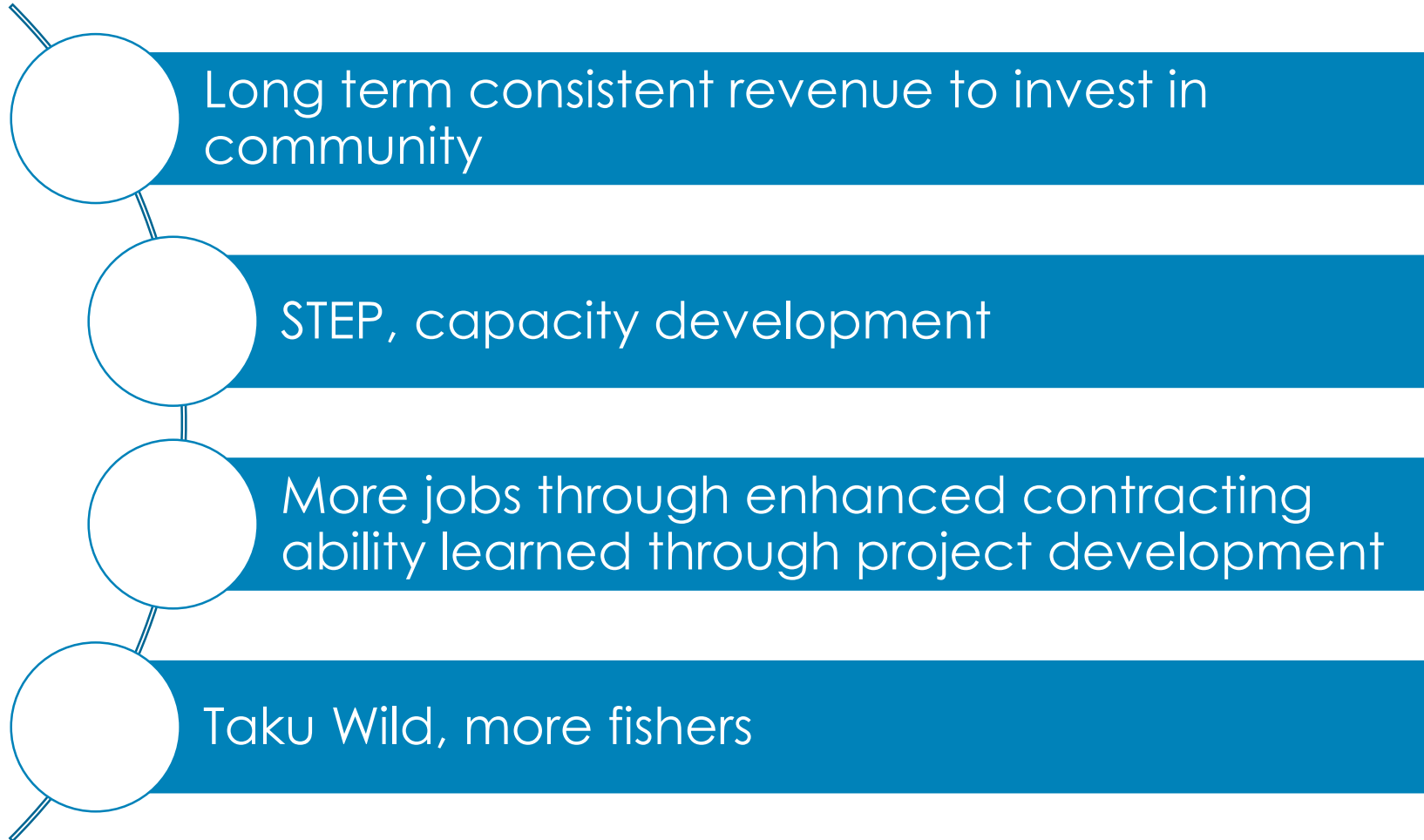
**300**  
homes



# Atlin Hydro Expansion Project



# Benefits in Small Northern Aboriginal Communities





# Investing in Community; what TRT is doing

1. Sustainable Development, resource management
2. Reviving Culture
3. Development Corporations and businesses
4. Capacity Development

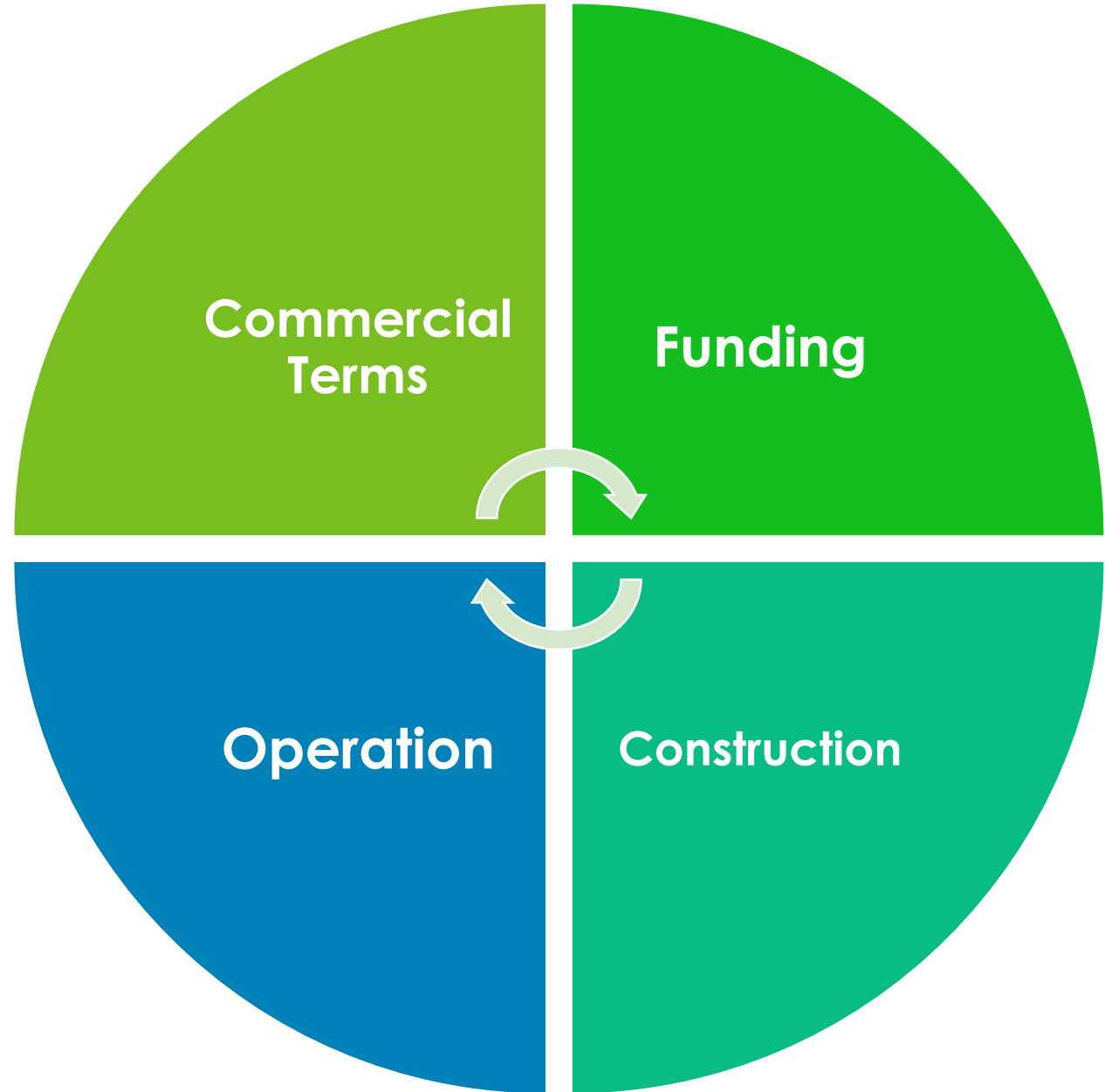
To create a healthier community

To create a better future for our citizens

To create more pride

# Collaboration for Success

**Our collaborative focus:**  
Delivering value to  
Yukoners and Taku River  
Tlingit First Nation citizens



# Questions

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NORTHWEST TERRITORIES  
**POWER  
CORPORATION**

*Empowering Communities*



# Indigenous & Utility Partnerships - Renewables Development

Grant Sullivan, Nihtat Energy Ltd.  
Mike Ocko, NTPC

April 26, 2022



# Introductions



## Nihtat Energy Ltd (NEL)

- Northern, Indigenous owned.
- Subsidiary of Nihtat Corporation
- Focused on developing and operating clean energy alternatives.
- Operating in Beaufort Delta region & other areas of northern Canada.

## Northwest Territories Power Corporation (NTPC)

- Northern, Crown Utility
- Serves a population of 43,000 people in 33 communities across NT
- Serves off-grid thermal communities in Beaufort Delta



## *Renewables Development in Beaufort Delta*

- Challenges for Renewables Development
- Shift Focus to Areas of Common Interest.
- MOU approach for renewables development in Beaufort Delta
- Path Forward – two Beaufort Delta success stories



**2016-2018**

High Point Wind Feasibility Studies



**2018-2020**

NEL Residential & Behind the Meter Solar Developments in Inuvik



**2020**

NEL and NTPC enter MOU



**2020-21**

NEL and NTPC PPA Agreement to Develop Solar IPP in Aklavik



**2021-22**

NEL and NTPC PPA Agreement to Development 1 MW Solar Farm in Inuvik

# Challenges for Renewables Development

1



**2016-2018**

High Point Wind Feasibility Studies

- Initial involvement during feasibility stage; involvement during construction
- Long lived projects should provide long term opportunity for local/ Indigenous communities
- Limited investment opportunity



**2018-2020**

NEL Residential & Behind the Meter Solar Developments in Inuvik

- GNWT Net Metering Policy Limits Renewable Capacity that can be developed on remote grids
- Utility concerns regarding revenue impacts from behind the meter projects

# Focus on Areas of Common Interest



**2020**

NEL and NTPC enter MOU



**2020-21**

NEL and NTPC PPA Agreement to Develop Solar IPP in Aklavik



**2021-22**

NEL and NTPC PPA Agreement to Development 1 MW Solar Farm in Inuvik

***Territorial Objectives:*** Electricity Generation, Leadership and Indigenous Engagement

- Reduce GHG emissions from electricity generation in diesel powered communities
- Work together to find solutions: community engagement, participation and empowerment.

## ***NEL Planning Objectives***

- Facilitate development of renewables that can displace fossil fuels
- Enhance Indigenous participation in utility project planning
- Ensure that local Indigenous communities have a meaningful role to play in taking action to mitigate climate change impacts.

# Memorandum of Understanding

- *Signed November 7, 2019*
- *Framework for cooperative activities for renewables development in Beaufort Delta*
- *Foundation for development of two separate solar projects in Beaufort Delta*

## PURPOSE

- Establish a framework for cooperative activities for development of renewable energy projects in remote thermal communities

## SCOPE

- Outlines how the Parties intend to work together

## FORMS OF COOPERATION

- Collaboration, technical discussions, information exchange, local involvement

## AREAS OF COOPERATION

- Project technical analysis and assessments
- Project planning and development
- Community engagement
- Project funding and financing arrangements

## IMPLEMENTING AGREEMENTS

# *150 kW Aklavik IPP*

- **Project Timeline**
  - Construction completed in 2021
  - Commissioning ongoing in 2022
  - Plan for in service summer 2022
- **Project Benefits**
  - PV Solar Installed: 150 kW AC
  - Diesel Displaced: 234 MWh (Yr 1)
  - GHG Reduction: 155 Tonnes/Yr
  - NEL Revenues through IPP Agreement





# *Inuvik 1 MW Solar IPP*

## **Project Timeline**

- Procurement completed
- Construction targeted for summer 2022
- Commissioning 2022/23

## **Project Benefits**

- PV Solar Installed: 1 MW AC
- Diesel Displaced: 1,398 MWh (Yr 1)
- GHG Reduction: 784 Tonnes/Yr
- NEL Revenues through IPP Agreement





# Thank you





# Kivalliq Alternative Energy



*Sakku Investments Corporation*

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# Kivalliq Alternative Energy



- An Indigenous Partnership in Clean Energy
  - Sakku Investments Corporation
  - Northern Energy Capital
- Kivalliq Region of Nunavut

# Sakku Investments Corporation



- Development Corporation of the Kivalliq Inuit Association (KIA).
- Represents the interests of all Inuit living in the Kivalliq Region



# Sakku Investments Corporation



# Northern Energy Capital



- Yukon company established to empower communities in their transition from fossil fuel consumption to clean energy asset ownership
- Specializing in the development and financial structuring of clean energy projects

# Kivalliq Alternative Energy



- Mandates:
  - Reducing carbon emissions
  - Training and capacity building
  - Increasing clean energy production in the communities

KAE is promoting engagement and community participation across the the Kivalliq region

# What Makes the Partnership a Win-Win



- Move at the right pace
- Mutual learning from each other
- Mutual understanding of cultural sensitivities
- Mutual support for each others decision making process
- Long term vision



# What Makes the Partnership Unique



- New venture in an emerging industry
- First time working together
- Spans the north, Coast to Coast



# Advancements to Date



- Community Energy Plans:
  - Naujaat
  - Coral Harbour
- Resources Assessment Studies
  - Rankin Inlet
  - Baker Lake
  - Chesterfield Inlet
  - Whale Cove

# Advancements to Date



- System Integration Studies
- Implementation Plans
  - Rankin Inlet      1ML diesel/yr      30%
  - Baker Lake      675kL diesel/yr      25%
  - Nauyasat      390kL diesel/yr      30%
  - Coral Harbour 360kL diesel/yr      30%

# Next Steps to Watch For



- Advancing two solar projects to be shovel-ready
  - Naujaat
  - Coral harbor
- Advance development activities on two wind projects
  - Rankin Inlet
  - Baker Lake
- Complete Resource Assessments
  - Chesterfield Inlet
  - Whale Cove