

# Alaska Village Electric Cooperative, Inc./ Pitka's Point Native Corporation Renewable Energy Joint Venture Pitka's Point/Saint Mary's Wind Energy Construction Project

Tribal Energy Conference

Denver, Colorado

November 16, 2016

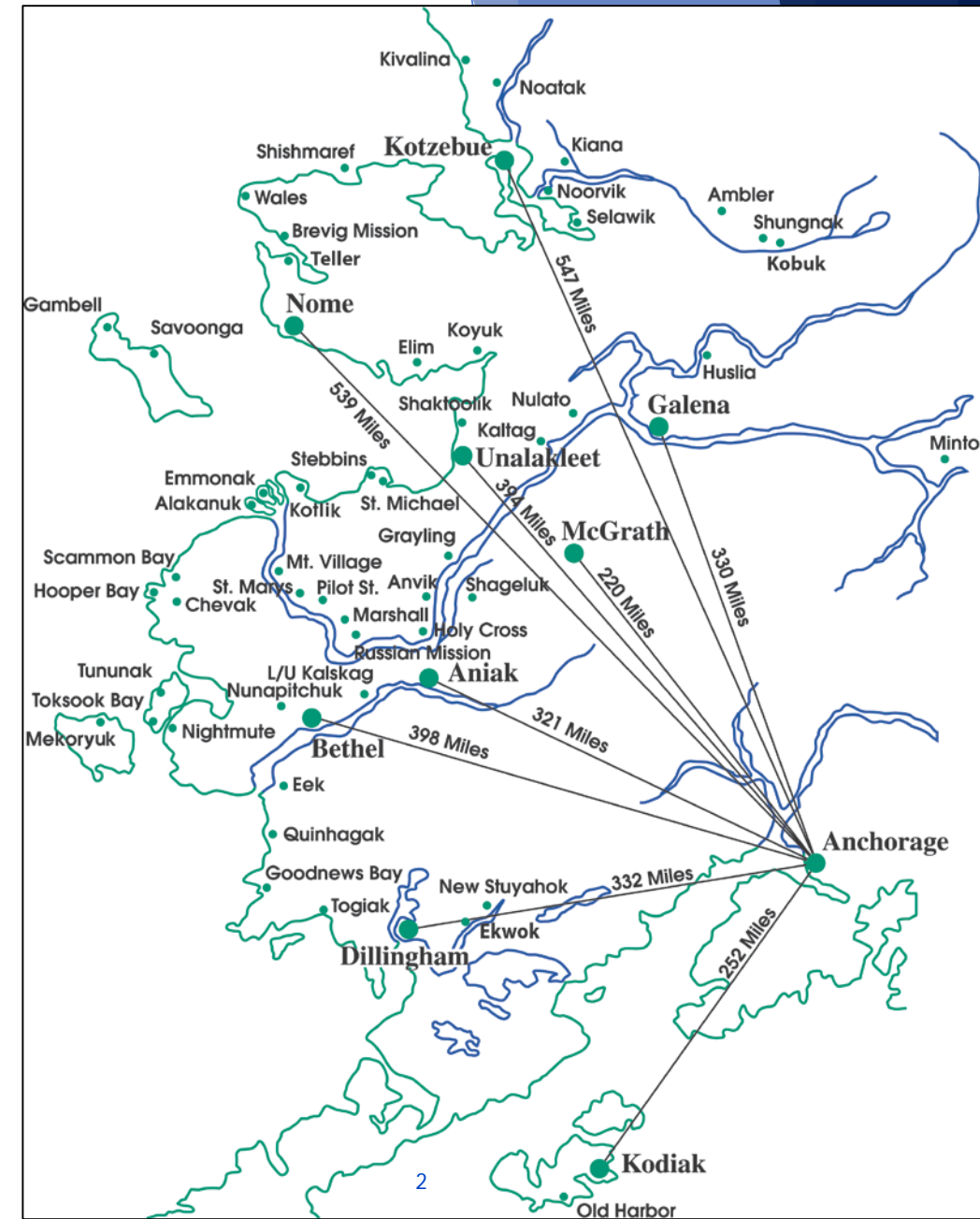
Onya Stein

Project Support/Office Administrator



# Who is AVEC?

- ▶ 56 Member Communities
- ▶ 10,879 Member Services
- ▶ Population Served: 30,194
- ▶ 94% Alaska Native
- ▶ Smallest: Shageluk 71
- ▶ Largest: Bethel 6,205
- ▶ Anchorage Population: 298,908
- ▶ 81 Employees
- ▶ 48 Power Plants
- ▶ 34 Turbines serve 15 communities (4 by intertie)
- ▶ 112,712,935 kwh Sold



# Who is AVEC?





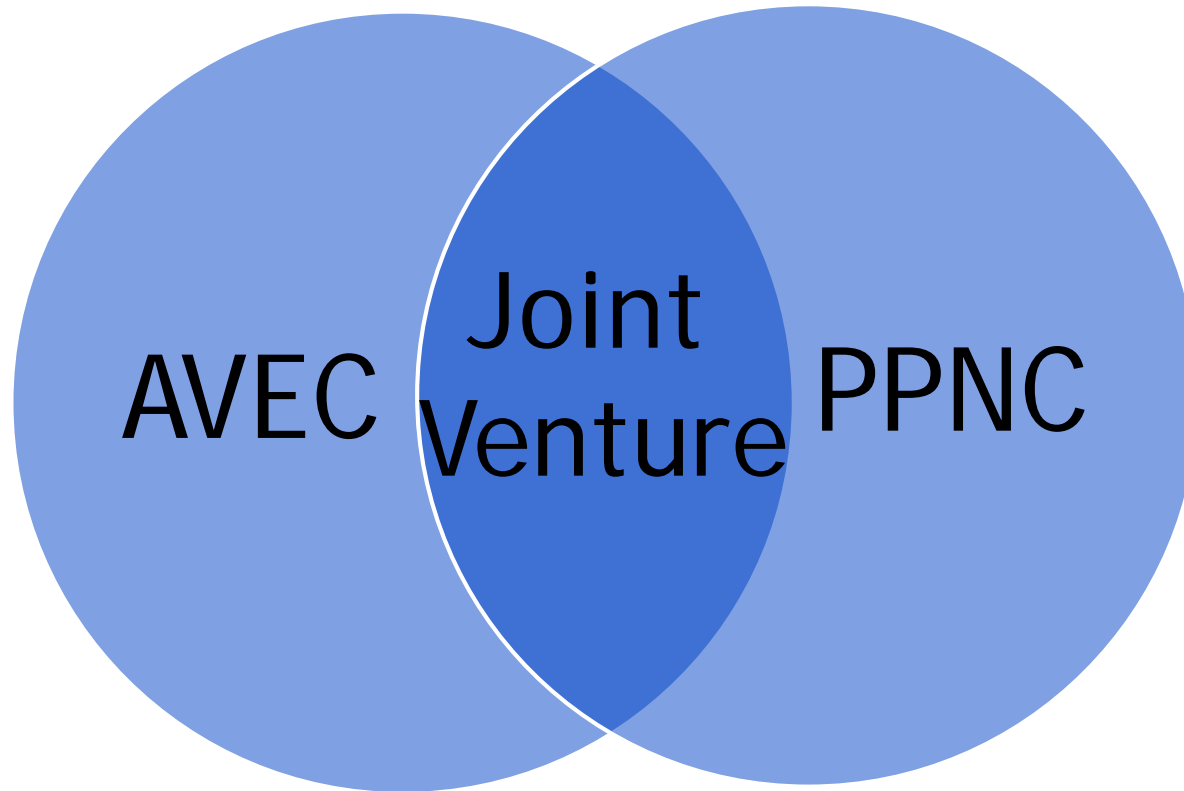
# Who is PPNC?

- ▶ ANCSA village corporation
- ▶ Serves 426 shareholders



# What is the Joint Venture?

- ▶ Partnership between AVEC and PPNC
  - ▶ To benefit the communities of Pitka's Point, Saint Mary's, and Mountain Village



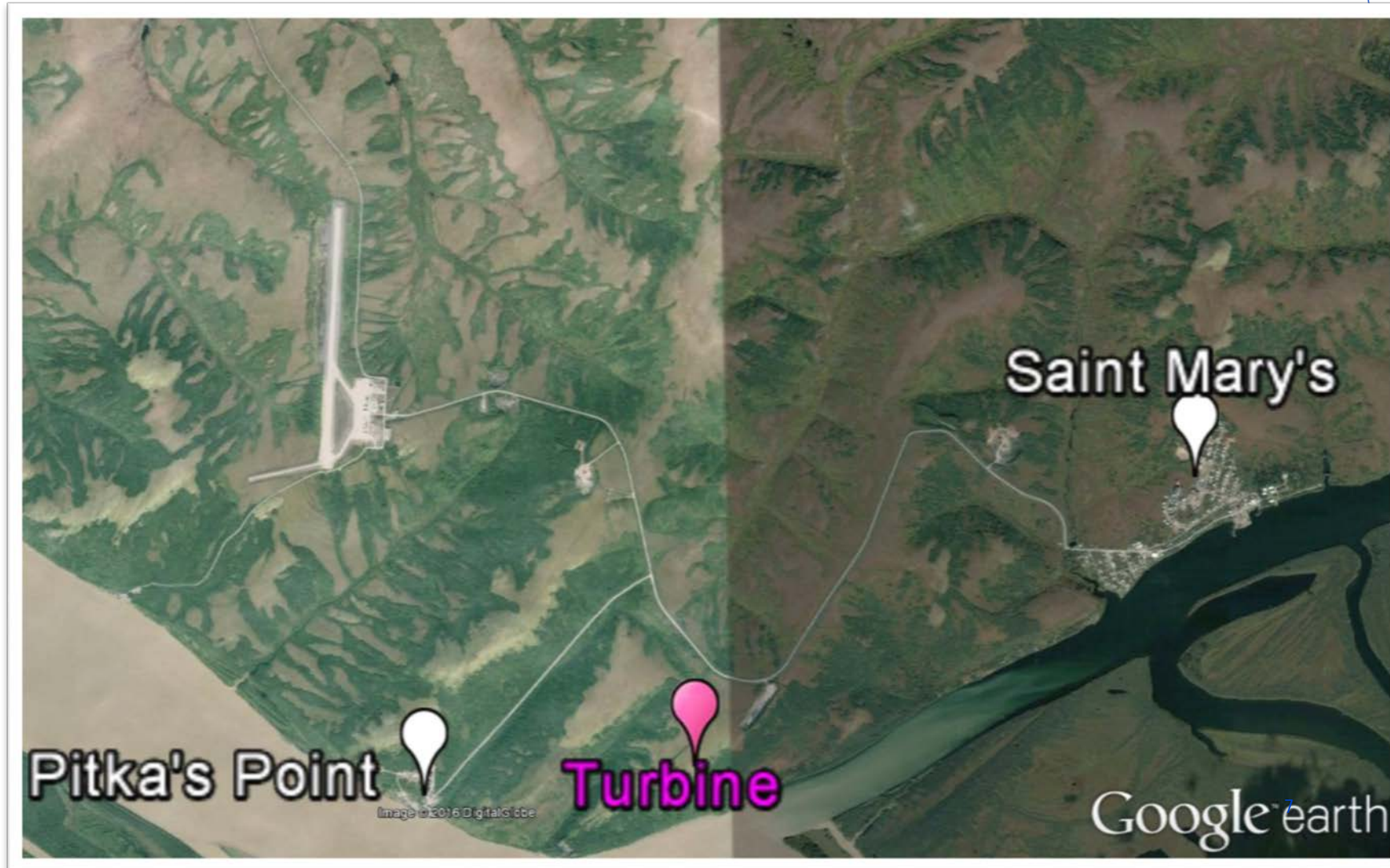
# Project Overview

- ▶ Installation of one Emergya Wind Technologies (EWT) 900 kW direct drive wind turbine.
  - ▶ 52 meter diameter rotor
  - ▶ 50 meter high tower
- ▶ Upgrade electrical distribution line to three-phase between St. Mary's and Pitka's Point
- ▶ Upgrades at the Saint Mary's power plant to effectively utilize wind
- ▶ Wind-to-heat component





# Saint Mary's and Pitka's Point



# Mountain Village





# Project Location



# Project Participants

- ▶ John Lamont
  - ▶ President of PPNC
- ▶ Meera Kohler
  - ▶ President/CEO of AVEC
- ▶ Forest Button
  - ▶ Project Development Manager of AVEC
- ▶ Native Village of Pitka's Point
- ▶ Algaaciq Tribal Council
- ▶ Yupiit of Andreafski
- ▶ Asa'carsarmiut Tribal Council
- ▶ Azachorok, Inc.
- ▶ Nerklikmute Native Corporation
- ▶ Saint Mary's Native Corporation
- ▶ City of Saint Mary's
- ▶ City of Mountain Village



# Project Objectives

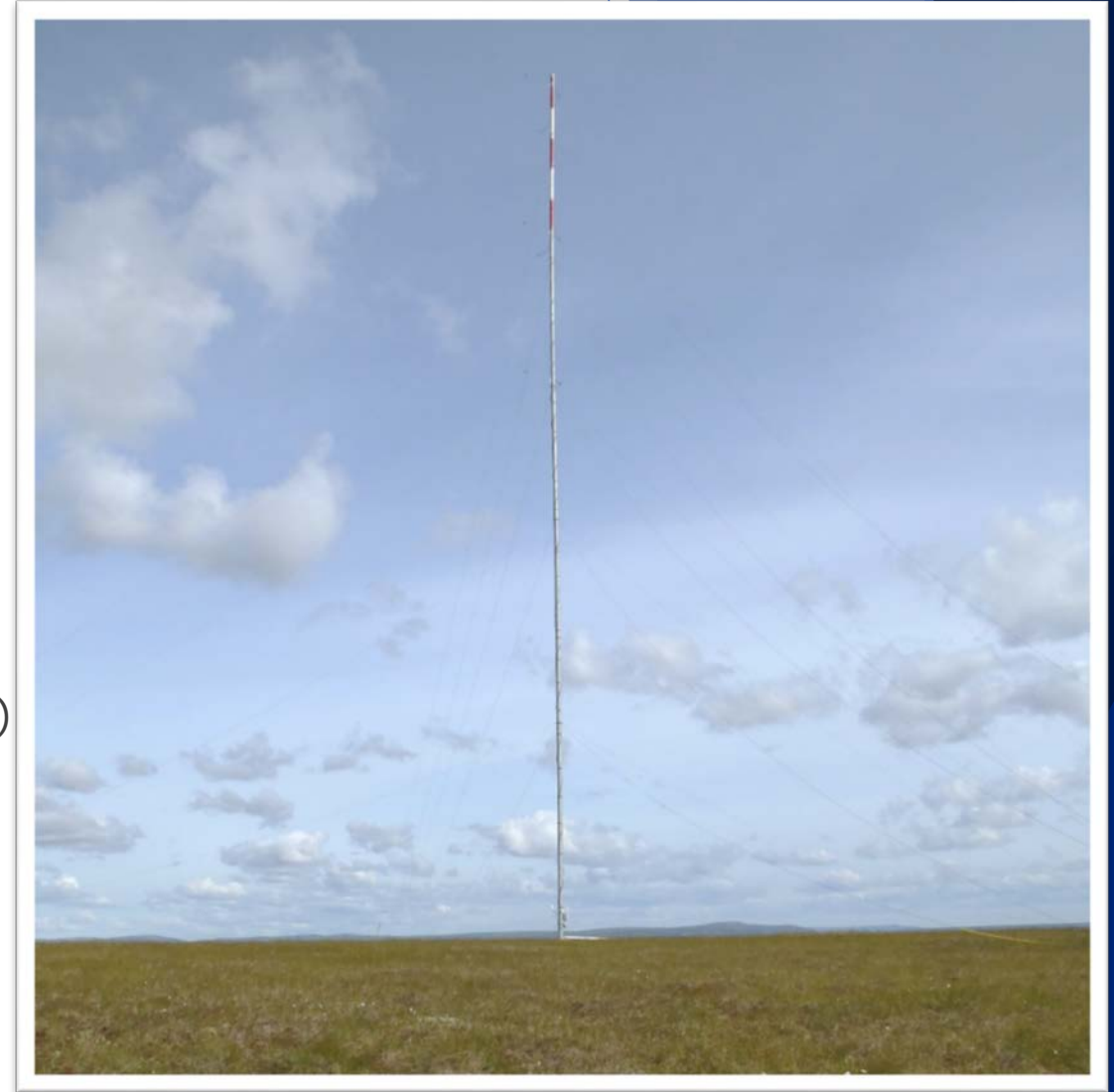
- ▶ Replace approximately 202,000 gallons fuel/year for generation
- ▶ Replace approximately 4,220 gallons fuel/year for heating
- ▶ Generate around 2,525 MWh/year
- ▶ Eliminate roughly 2,100 Metric tons of CO<sub>2</sub>/year
- ▶ Strive to stabilize future energy costs
- ▶ Reduce risk of environmental damage





# Background Information

- ▶ Renewable Sources
  - ▶ Wind Resource Analysis
  - ▶ Solar
  - ▶ In-stream hydroelectric
  - ▶ Hydropower development
  - ▶ Biomass energy (trees)
- ▶ Turbines Analyzed
  - ▶ 4 Northern Power 100 ARCTIC turbines (400kw installed)
  - ▶ 1 EWT DW52-900 (900kw installed)
- ▶ Funding \$5.616M
  - ▶ AEA \$4.3M
  - ▶ Match \$537K
  - ▶ DOE \$779K



# Progress to Date

Grant Award -  
October 2016

Awarding  
Construction  
Contract

In process  
of ordering  
EWT  
Turbine



# Thank you!

## Questions?

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