Tribal Energy Conference
2021 Pandemic Virtual Version
November 2021

Forest Button, Manager,
Project Development & Key Accounts

Toksook Bay
Alaska Village Electric Cooperative, Inc./Stebbins Native Corporation Renewable Energy Joint Venture

(ASRE)

Stebbins / St. Michael Renewable Energy Project
Alaska Village Electric Cooperative
Member owned, not-for-profit
Energizing Rural Alaska since 1968

• 58 Member Communities
• 11,500 Services
• Population Served: 30,194
• 94% Alaska Native
• Smallest: Oscarville 64 → Largest: Bethel 6,469
• 9.1 million gallons of diesel / $20.4 million ($2.90)
• 85 FT / 59 PT Employees
• 49 Power Plants
• 32 Wind turbines serving 20 communities
• 3 Solar arrays serving 4 communities
• Two tug and barge sets
AVEC Wind Program 2020

- 32 Wind Turbines (4,800 kW)
- 11 Wind Farms
- Serving 20 Communities
- 6.94 million kWh
- Displaced 487,000 gallons
- Saving $1.51 million
- 5,449 tons of CO2 avoided
• Partnership between AVEC and SNC
  • To benefit the communities of Stebbins and Saint Michaels

**Project Partners:**
• City of Stebbins
• Native Village of Stebbins
• City of St. Michael
• Native Village of Saint Michael
• Stebbins Native Corporation
• Stebbins Community Association
• St. Michael Native Corporation.
• Denali Commission
• DOE Office of Indian Energy
St. Michael, AK

Population 427

Gas $5.20
Diesel $4.95

Electric Rate:
0-500kWh .2353
501-700kWh .4935
Stebbins, Alaska

Population 575

Gas $5.27
Diesel $5.04

Electric Rate:
0-500kWh .2353
501-700kWh .4935
Install EWT 900kW Turbine

- Offset 104,700 of diesel
- Savings in first year $365,403
- Lifetime savings $11.4 million
- Project life 25 years
- NPV benefit $6.694 million
- Provide wind to heat
Schedule

• Procure Turbine 1Q2020
• Mob to site 2Q2022 / 3Q2022
• Site improvements 3Q2022 / 4Q2022
• Turbine Foundation 4Q2022 / 1Q2023
• Turbine Delivery / Installation 2Q2023 / 3Q2023
• Start up / Commissioning 3Q2023 / 4Q2023
Past Projects

• Bethel – 900kW EWT
  • Online September 2018 (37 months)
  • 5,030,926 kWh
  • 363,769 gallons avoided Diesel
  • 4,000 tons CO2 avoided
  • Saving $1.3 million

• St. Mary’s/Pitka’s Point – 900kW EWT
  • Online January 2019 (33 months)
  • 4,982,690 kWh
  • 433,654 gallons avoided Diesel
  • 4,770 tons CO2 avoided
  • Saving $1.2 million

DOE Tribal Energy’s impact in Alaska
With collaboration, all things are possible!

Forest Button
Alaska Village Electric Cooperative