Chaninik Wind Group – Realizing Community Success
Chaninik Wind Group Villages
- Kipnuk pop. 639
- Kongiganak pop. 439
- Kwigillingok pop. 321
- Tuntutuliak pop. 408

- Formed organization to work together to build local capacity and innovate ways to reduce energy costs
CWG started in 2005 with a simple idea...

✧ Install wind turbines to
  ✧ Lower the cost of energy (heat and electricity)
✧ Small communities should work together
  ✧ Reduce dependency on diesel fuel
  ✧ Create local jobs
  ✧ Certify and train employees
  ✧ Become sustainable communities
CWG Strategies for Success

- Build capacity as a foundation for lasting economic development
- Good information to make good decisions, lower costs, and give a pathway to sustainability
- Adopt innovation to meet needs and support values
- Lead efforts to plan for community energy use creating value and fostering new opportunities
- Think outside the box
Wind Heat Smart Grid Design

Wind Turbines

Village Power Plant

Supervisory Controller

Remote Servers:
  * MAS Server
  * Smart Grid Controller
  * EnergySmart Server

Smart Gateway
(sends measurement data to the EnergySmart Server)

Internet

Electric Vehicle
ZigBee slave

Solar

Battery for Local Energy Storage
ZigBee slave

Thermal Stove
ZigBee slave

User Display

Smart Meter Collector & ZigBee Master
* Connects to MAS server via Internet.
* Connects with up to ~1500 Meter Nodes via wireless communication.
* Controls local ZigBee slave devices (wireless) on command from Smart Grid Controller

Smart Meter Node & ZigBee Master

Ethernet (other options available)
Lessons Learned

- Energy issues must be addressed on all levels
- More resources are needed to build capacity
- New opportunities reveal themselves everyday
- Risks are possible... expect the unexpected
- Stay positive and focus on the project goal
Quyana cakneq!

Thank you very much!

Special Thanks To


This work is possible because of your support.