Alaska significant solar potential – about the same as Germany which leads the world in PV
Diesel Fuel and Solar Price Comparison

Indexed Diesel and Solar Costs
2002-2014

From Upcoming Preliminary Analysis Only. Has not been reviewed. Please do not cite or distribute.
Why Seek Tax Incentive – Based Financing?

Tax incentives (ITC and Depreciation) can represent up to half the project value, or reduce project’s capital costs by ~40-50%
Third Party or IPP Ownership of PV Systems

The village agrees to **host** the system and **purchase** the electricity

- **Village “Host” of Renewable Energy Generation Equipment**
  - Revenue from electricity sales
  - Remaining electricity needs

- **Local Utility**
  - Various project finance structures

- **Renewable Energy Developer (IPP) and Financial Partner**
  - Renewable electricity at fixed prices

- **Tax Benefits**
  - Worth ~50% of the cost of a solar system

**Worth ~50% of the cost of a solar system**
From Preliminary Solar Economic Analysis

Shugnak Cost of Electricity
(Based on $5.10/G and $6.87/G Wholesale Diesel Prices)

- Solar PV
- 2013 Diesel Fuel Cost
- 2014 Diesel Fuel Cost

Cents per kWh

PV Low Cost ($6/W)
PV Base Case ($9/W)
PV High Cost ($12/W)

Preliminary Analysis Only. Has not been reviewed. Please do not cite or distribute.
Tax Incentive Financing Consideration Tradeoffs

Disadvantages:
- May not beat current electricity rates
- Tough economics for small projects
- Higher transaction costs
- Must have tax liability or find a partner

Advantages:
- Benefit from tax incentives
- Locked-in energy price
- Path to ownership

- Benefit from tax incentives
- Locked-in energy price
- Path to ownership
Other Solar Considerations/Limitations to Consider

- Seasonal load profile of village
- Integration with diesel system
- Fluctuating diesel fuel prices
- Interactions with PCE
- Utility partnerships
Access to Capital: A Persistent Issue

Can you guess the year??