DOE OFFICE OF INDIAN ENERGY

DOE Alaska Native Village Energy Development Workshop: Alternative and Innovative Financing

Anchorage, Alaska, April 30, 2014
Project Capital Structure

Potential Capital Financing Sources

- Tax Equity
- Debt
- Cash Equity
- Grants
Common Ways to Finance Renewable Energy

**Government Sponsored**
- Grants
- Loans
- Tax Exempt Bonds
  - CREBS
  - QECB (AK $7,100,000)
- Renewable Energy Credits
- Tax benefits
  - Tax credits
  - Depreciation benefits

**Private Financing**
- Equity
  - Equity from project owner
- Debt
  - Banks
  - ESCOs - Energy savings performance contracting
- Tax equity
  - Upfront equity, in exchange for tax credits and other benefits, primarily from US banks and insurance companies (and Google)
Federal Energy Programs

- **DOE**
  - Tribal Energy Grant Program
  - Incremental hydroelectric incentive payment
  - Innovative Technology Loan Guarantee
- **DOI – Office of Indian Energy and Economic Development**
  - DEMD Grants and Technical Assistance
  - Loan Guarantee
- **USDA – Rural Development**
  - RUS Loan Guarantee Program
  - REAP Grant/Loan Program
  - Woody Biomass Program
  - RBOG Grant/Loan Program
- **EPA**
  - Clean Diesel Grant Program
- **Commerce**
  - EDA
  - MBDA
- **Treasury**
  - New Clean Renewable Energy Bonds (CREB) - $1.4B est. reallocation
  - Qualified Energy Conservation Bonds (QECB) – AK $7,100,000
  - New Market Tax Credits
- **DHS/FEMA**
  - Climate change, disaster mitigation
Bulk Purchasing

- Aggregate demand for energy systems: individuals, companies, government entities
- Reduced pricing from vendors – scale
- Simplified purchasing process
- Examples:
  - Los Angeles, Portland, San Francisco
  - San Jose in partnership with SJFCU for low cost loans
Leasing/PPA Models

- Renewable energy company installs, owns, operates, and maintains energy system – receives 30% tax credit
- RE company has PPA with host to sell power from system
- Host leases system and buys power from RE company at price < utility retail price
- Lease to purchase terms available to buy system at end of lease
Renewable Energy Tax Incentives

- **Investment Tax Credits (ITC)**
  - Solar, small wind (30%), geothermal, microturbines, combined heat and power (10%) – expires 2016
  - Wind (30%) expires 2013

- **Production Tax Credits (PTC)**
  - The amount of the PTC is adjusted for inflation each year
  - 2.2¢/kWh for wind, geothermal, closed-loop biomass; 1.1¢/kWh for other eligible technologies
  - Expires 2013

- **New market tax credits**
  - Qualified Equity Investments (QEIs) in qualified community development entities (CDEs)
  - Intended for “low income communities”
  - Indian tribes qualify as *targeted populations*, treated as *low income communities* for IRS purposes

- **Accelerated Depreciation**
  - Renewable energy projects are eligible for five-year accelerated depreciation recovery period
Tax Equity Investor

• Entity with high tax liability to take advantage of tax credits/depreciation
• In exchange for providing cash to project, monetizes the ITC and accelerated depreciation benefits
• Must own project, to monetizes tax benefits
• Tax equity investors are typically very large corporations or banks
• Represents roughly 50-55% of the initial capital costs
• Can negotiate future purchase/flip of the project to village or coop utility.
Green Bonds

• Finance tool for green projects: projects and activities that promote climate and other environmentally sustainable purposes
  – Renewable energy
  – Energy efficiency
  – Sustainable waste management
  – Clean transportation

• Nascent market for institutional investors who have climate considerations in their investment objectives
  – Currently led by international organizations (WB, IMF)
  – Some states beginning to look at (MA and HI have issued some green bonds)
Additional Information & Resources

Financing Opportunities For Alaska Native Villages


Federal Financing Facilities

Federal Loan Programs for Indian Country
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