Green Tags for Alaska

Buying and Selling the Environmental Attributes of Renewable Energy

Chris Rose
Renewable Energy Alaska Project (REAP)
Bethel, Alaska
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What is REAP?

- An Alaskan coalition of small and large utilities, environmental groups, consumer groups, businesses, and energy agencies with the goal of “increasing the production of renewable energy in Alaska.”

Why REAP?

- Before the formation of REAP, Alaska was the only state in the country with significant renewable energy resources that did not have an education and advocacy group focused on renewable energy.

REAP's Strategies

- Put viable renewable energy projects in the ground
- Advocate for statewide policies that promote renewable energy
- Grow the market for renewable energy
- Foster and demonstrate stakeholder unity in support of renewable energy
- Promote energy efficiency

Current REAP Members

- Chugach Electric Association (CEA)
- Municipal Light and Power (ML & P)
- Golden Valley Electric Association (GVEA)
- Homer Electric Association (HEA)
- Kotzebue Electric Association (KEA)
- Alaska Village Electric Cooperative (AVEC)
- TDX Power
- Alaska Power Association (APA)
- Alaska Power and Telephone
- Sierra Club
- Alaska Center for the Environment
- Alaska Conservation Alliance
- Alaska Public Interest Research Group (AkPIRG)
- Rural Alaska Community Action Program (RurALCAP)
- Green Star
- Chena Hot Springs
- Powercorp, Inc.
- Alaska Inter-Tribal Council
- Aleutian/Pribilof Islands Association (APIA)
- Alaska Energy Authority
- National Renewable Energy Lab
- Denali Commission
- Alaska Housing Finance Corporation
- Cold Climate Housing Research Center
- US Department of Agriculture

What are “Green Tags”

- Green tags are the environmental attributes of renewable energy packaged in a commodity that can be bought and sold
- Green tags help support the development of more renewable energy
- Green tags are also called Tradable Renewable Credits (TRCs) and Renewable Energy Credits (RECs)

- Green tags represent the emissions from conventional electricity generation that are displaced when electricity is generated from wind, solar, biomass, geothermal, and (some) hydro.

Why Green Tags?

- The green tag market was established to help facilitate the sale of renewable electricity nationally and regionally
- Green tags help overcome the obstacle of delivering the benefits of renewable energy to customers who are sometimes far from generating plants

Green Power vs. "Green Tags"

- Green Power *bundles* the energy and the environmental attributes (e.g. the displaced emissions)
- "Green Tags"* *strip off* the environmental attributes from the energy, allowing each to be marketed and sold separately
- In *neither* case are the electrons flowing into your house any different from those going next door
- In *both* cases the result is the same -- a cleaner mix of power in the region:
  - *more renewables in the pool*
  - *less fossil fuel burned*
  - *lower emissions*

*a.k.a Renewable Energy Credits (RECs) or Tradable Renewable Credits (TRCs)

BONNEVILLE ENVIRONMENTAL FOUNDATION

What Affects the Price of Green Tags?

- Supply and Demand
- Type of Power (e.g. solar green tags are usually more expensive)
- The location of the project
- The size of the project
- “Extra” environmental certification
- Contract factors
- 1 MwH for $2-$30

Certification and Tracking

- The Center for Resource Solutions (CRS) developed a widely-used renewable electricity certification program that validated tag-based sales called "Green-e"
  - The green tag must originate entirely from new renewable facilities (after 1999)
  - Certified providers undergo an annual verification process audit to document renewable certificates are sold only once
  - Each certified provider agrees to abide by the Green-e Code of Conduct
  - Each certified provider agrees to disclose the quantity, type and geographic source of their green tags to their residential and small business customers
- Power purchase agreements and state renewable procurement laws almost always now explicitly address contractual rights to renewable attributes
- The Western Governor's Association is working on a regional tracking system for green tags

Who Buys Green Tags?

- Utilities and Electric Service Providers to satisfy state mandated Renewable Portfolio Standards
- Competitive renewable energy marketers for sale to customers
- Residential and commercial customers where no other renewable energy options are available
- Event organizers so that events can off-set their electricity or be "climate neutral"

Who Sells Green Tags?

- Bonneville Environmental Foundation
- Sterling Planet
- American Wind
- Mainstay Energy
- 3 Phases Energy Service
- Aquila
- Pacific Renewables
- Sun Power Electric
- New Wind Energy
- Pepco Energy Services
- PPM Energy
- Green Mountain Energy

About BEF

- Founded in 1998, Bonneville Environmental Foundation (BEF) is a non-profit marketer of green power products.
- BEF provides grant funds and invests in renewable energy and watershed restoration projects.
- BEF also provides communities with renewable energy installation management services. These services may be in conjunction with or independent of a community's green power program.

Green Tags in Alaska

- Alaska wind projects are not yet selling green tags
- Green tag sales revenues could be plowed back into more renewable energy development
- Projects like Fire Island will produce large amounts of green tags (100 MW x 8760 hours x .33 CF = 289,080 MwH green tags/year)
- Potential buyers include: federal agencies, businesses, and environmental groups
- Green tags increase the public's awareness of renewable energy
- Green tags make the connection between climate change and one proactive solution
- REAP is currently negotiating with Bonneville Environmental Foundation to allow Alaskan producers of renewable energy to sell their green tags

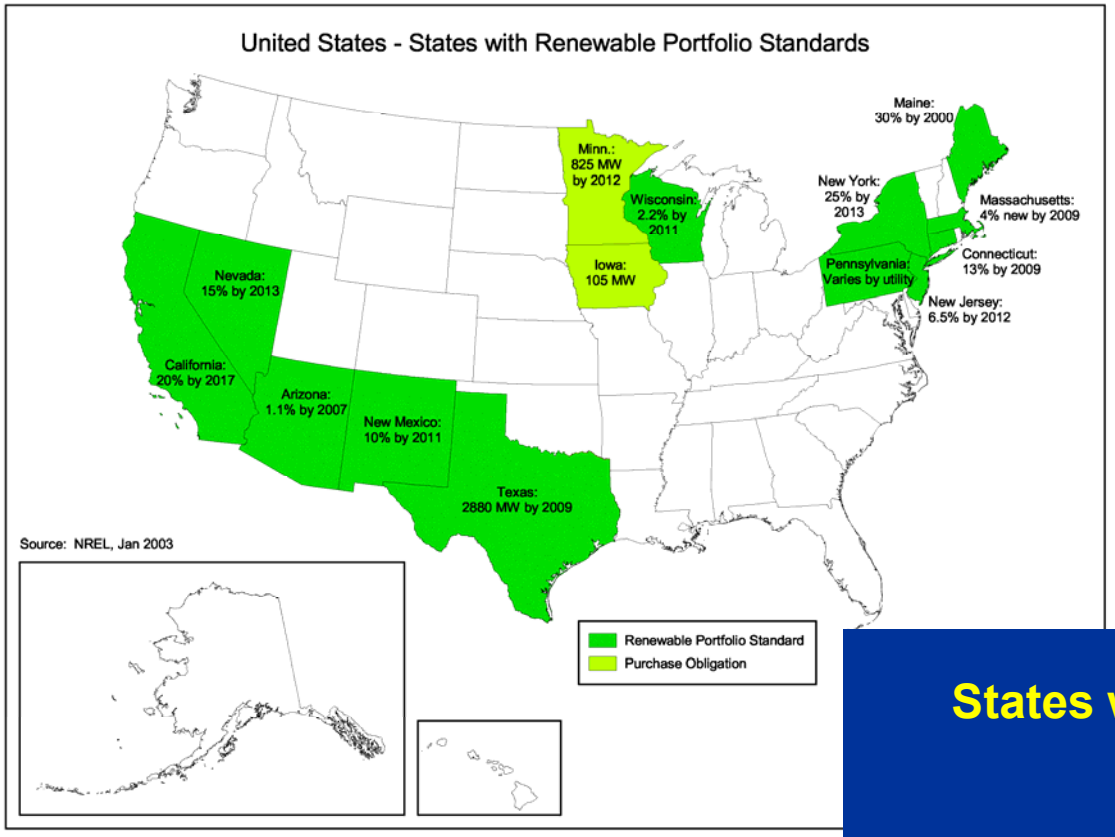
Where Does the Money Go?

- The producer of the renewable energy
- The broker of the green tags
- More renewable energy projects

Native Energy

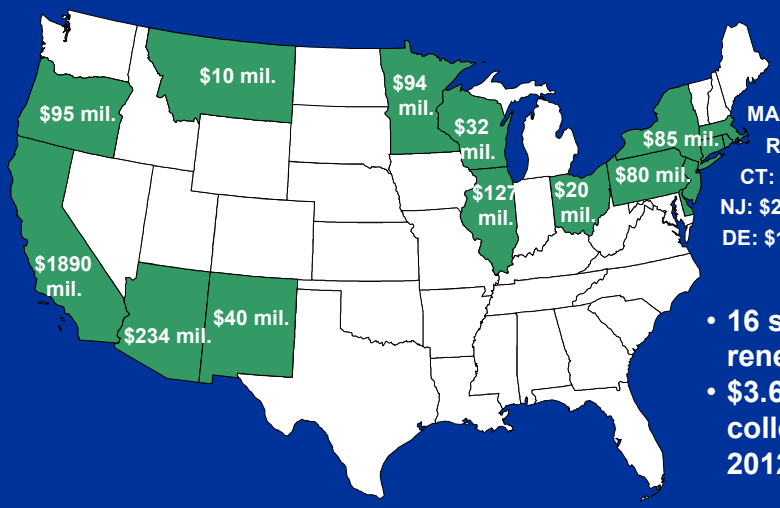
- Rosebud Sioux Reservation
- 750kW NEG Micon

States with Renewable Energy Policies



States with Renewable Energy Funds

Cumulative 1998-2012 (million $)



- 16 states with renewable funds
- $3.6 billion to be collected through 2012

Source: Lawrence Berkeley National Laboratory

The Alaska Renewable Energy Fair

Saturday, August 13th
Noon to 10 PM
Anchorage Park Strip

- Speakers
- Renewable energy demonstrations
- Workshops
- Live music
- Films

THANKS!

Chris Rose, REAP Director
642 South Alaska Street, Suite 200
Palmer, Alaska 99645
907-745-6000
crose@alaska.net