

Wise Energy Forum 2nd in three-part series



COMMUNITY-OWNED
RENEWABLE ENERGY



What is community-owned renewable energy (some terms)



- Distributed generation vs. large, centralized generation
- Attributes include control, benefit, project scope/scale, integration in other pieces of sustainable community, self-reliance
- Equity mitigation (fairness, not exploitation)
- Aggregation and cooperative effort
- Examples: MinnWind; Solar Sonoma; Boulder & Berkeley

Making the road by walking...

Here's the prototype
we've developed in
Boone, NC



OBJECTIVES

- Rooftops to renewables!
- Innovative social finance to fund community renewables
- Launch "Community Megawatt 2012" Campaign



ABOUT THE PROTOTYPE

- 2.4 kW photovoltaic system intended to grid-tie
- Located atop The GreenHouse in Boone
- Real-time system performance data posted at aire-nc.org
- Community ownership is via an LLC. Membership is limited in the prototype due to experimental nature. Additional memberships will be available as ownership and finance models are fully vetted
- State & Federal tax incentives available
- Local utilities must adopt grid interconnect standard and power purchase agreement
- Project registered with the NC Utilities Commission

YOU CAN PARTICIPATE

- Become a member of AIRE
- Make a charitable donation to AIRE
- Sign up to become a member/owner in a community solar project (www.aire-nc.org/community_solar)

PROJECT PARTICIPANTS



Appropriate technologies



- That do not overwhelm “place”, insult local sensibilities or create inordinate environmental impact (Wendell Berry ...what do we already have here? What does nature allow us to do here? Etc.)
 - Wind, Water, Sun (and conservation measures created by community effort)
 - Not here to favor any one
 - ✦ But, choices must match your local resource
 - ✦ Keep in mind cost/kw! (.34 for solar/ .03 for wind)

Models of community ownership



- “Flip” models
- Municipal/local government financed
- Policy driven market creation

Flips



- variations such as “Minnesota” and “Wisconsin”; maybe the “Appalachian bootstrapping flip” too?– these models are responses to prevailing tax incentives/structures and they privilege wealth; requires investors, requires a business entity e.g. LLC
- Local entity develops plan for renewable energy project
 - recruits investors as initial owners (with passive income to offset)
 - After investment is repaid (roughly 5-10 years), the project is “flipped” back to local entity for negotiated price

Example of investment - approx \$6-10 per watt Photovoltaic system

Local Government Finance



- Berkeley, Boulder— tax-free and/or low interest bonding authority; taxation; management & distribution of benefits
- Local government creates method to finance an individual renewable energy system through property taxes.
 - An individual or small business applies to the local government for a loan to install a renewable energy system. This loan is repaid through the individual's property tax over a period of 10 or 20 years.

policy driven (public) & market creation (private)



- Feed-in tariffs; Power Purchase Agreements, etc.– Germany; Gainseville, FL
- Municipal utilities set a goal for renewable production and offer an attractive rate
- PPA- negotiated contracts between a buyer of green power and a producer of green power (usually bankable long-term assets)

Guiding Questions



- What are our main goals for an envisioned project?
 - Economic diversification, community ownership, high visibility demonstration project, building political base, building knowledge & experience?
- Which model is most appropriate for Wise County Today?
- What local resources are required for such a system – (financial, legal, accounting, construction, etc...)
- Who should own such a system?
- Are there other important questions?

Resources



- www.aire-nc.org
- <http://www.dsireusa.org/index.cfm?EE=1&RE=1>
- <http://appalshop.org/wmmt/node/1800>
- And those you already have...Appalachian Sustainable Development; MACED, other