

WINDUSTRY'S
Community Wind Energy 2006

Home & Farm Wind: Addressing Barriers: Siting, Permitting, Zoning and Utility Interconnection

Moderator: Brian Antonich

Speakers: Victor Creazzi
Roy Butler

Choosing a site

Victor Creazzi, AeroFire Windpower

Part A 2:00 – 11:00

Victor Creazzi discusses the ideal site for a wind turbine. Creazzi defines some rules, identifies obstructions to look for, and gives some other tips for determining the site. Practical realities also play a role in siting, and Creazzi identifies and recognizes the importance of the real life obstacles and practical realities of siting the turbine.

Questions for Victor Creazzi

1.) *On the outer banks of North Carolina it is really windy, and yet, there are not wind turbines in sight. Why do you think this is the case?*

VC: Permitting.

RB: Victor is probably correct. In the similar case of Cape Cod, people do not want to see the turbines. Who to contact for permitting depends upon where you are. When in doubt, you should contact local code enforcement officer.

Permitting

Roy Butler, Four Winds Renewable Energy, LLC

Part A 14:00 – 35:45

Roy Butler identifies the barriers of permitting, and he uses real examples from his experience in New York State. The biggest barrier is people who have incorrect information about wind turbines. Butler offers advice as to how you can address these barriers and when you should address them. Most importantly, it is important to take seriously and address all objections from your neighbors or permitting agency.

Questions for Roy Butler

1.) *Simulations are powerful. They might be expensive for a small turbine, so do you know of any software that could simulate?*

Audience answer: At the technical college in Milwaukee they blew up a big balloon and showed the neighbors how high up the turbine would be.

Windustry
2105 First Avenue S
Minneapolis, MN 55404
612.870.3461 phone
www.windustry.org

WINDUSTRY'S
Community Wind Energy 2006

Home & Farm Wind: Addressing Barriers: Siting, Permitting, Zoning and Utility Interconnection

Moderator: Brian Antonich

Speakers: Victor Creazzi
Roy Butler

RB: Their local University had their own fire department put up a 100 foot hose boom. They put up an American flag, and then they decided that was not the right place for the turbine.

2.) *What is the normal setback?*

RB: If you were to lose structural integrity, then you would want to make sure it was far enough away from anything. A good rule is to add the tower height, blade length, plus a little more. It is good to be 30 feet away from anything and a little further away from dwellings. Remember the ultimate authority is the authority having jurisdiction.

3.) *Did you find any difference between permitting for off grid vs. on?*

RB: Absolutely, out of 125 systems they pulled 3 permits. Grid tie brings with it its own thing. Also, in New York, the wind has incentive funds. If you are asking for public money there are more rules.

4.) *Have you seen any off grid inside city limits?*

RB: Officially no, unofficially yes. It is really hard to do wind in the city. The population density is what dictates. PV you can put in the city.

BA: Mason City has developed ordinances for small and commercial scale.

Interconnection

Roy Butler

Part A 42:00–Part B 00:17

Roy Butler gives an overview of the tests, equipment, insurance, and other information you will need in order to interconnect a turbine to the grid. Butler's goal is to have a national standard for interconnection.

Net Metering

Victor Creazzi

Part B 1:05-3:20

Windustry
2105 First Avenue S
Minneapolis, MN 55404
612.870.3461 phone
www.windustry.org

WINDUSTRY'S
Community Wind Energy 2006

Home & Farm Wind: Addressing Barriers: Siting, Permitting, Zoning and Utility Interconnection

Moderator: Brian Antonich

Speakers: Victor Creazzi
Roy Butler

Creazzi describes the difference between selling power and buying power. He also defines what netmetering means.

Questions and Answers

1.) *At some point, if you continue to sell back electricity, what are the limits on selling?*

VC: In Colorado, I connected to the line. The utilities policy was to use a standard electric meter. The utility read the meter and compared it to the previous month's reading. The net effect was that any excess electricity was used by the utility. This was a good deal because if you size your machine off of how much energy you use then the excess power will not be large. As the turbine gets bigger, you get into a seasonal situation where you could benefit and it is a better deal for you if you have an annual banking period. In Colorado, the limit for Investor Owned Utility is 10 kilowatts and the REA 25 kilowatts.

2.) *This question spurs a discussion and examples from the audience members. Such as information on peak verses off peak rates. Some other highlights are:*

- For more detailed information and for state contacts on net metering visit <http://www.dsireusa.org/>
- In MN you can have a 40 kilowatt turbine, and if you generate more than you need you get a check, and if you don't then you have to pay the utility.
- Minnesota is one of the few states that has a net metering policy that offers you retail rate. A lot of other states will offer avoided costs or nothing at all.
- Suggestion to go back to the utility in addition to the state. In Wisconsin you go to your utility. For PV they have a buy back rate of 22.5 cents/kilowatt hour you produce.

Windustry
2105 First Avenue S
Minneapolis, MN 55404
612.870.3461 phone
www.windustry.org