



## Great Lakes St. Lawrence Cities Initiative

# Climate Change Challenges Sustainable Energy Strategies

June, 2013

Rich Vander Veen Wind Resource

616.897.1304 <u>rich@windresourcellc.com</u> <u>www.windresourcellc.com</u>



#### Climate Change Challenge

- I. Climate Change: Energy is the Heart = 87% of the GHGs Floods, Droughts, Severe Weather; Limited Time & Resources
- II. Sustainable Energy Strategy
- II. Policy Recommendations
  - A. Great Lakes Sustainable Energy Strategy Integrated Resource Plan
  - B. Use the St. Lawrence Seaway Authority Model, the GL Commission and the IJC to Map Demand and Generation Resources
  - C. Build Sustainable Energy Strategy with Public Engagement & Education
  - D. Resiliency Plans complement SES: True Price for all: Coal, Gas, Nuclear& Renewables

#### **Resilient Communities**

"Climate change and the resulting impacts have already and will continue to affect all sectors of a community including economy, social well-being, and environmental stability,"

Grand Rapids Mayor, George Heartwell

## Great Lakes Integrated Resource Plan



### Leadership: Charting the Course

- Defining "Community" beyond political boundaries...Watersheds & Private + Public + Non-Profit Sectors...
- Communities are the only thing that creates change
- Defining community vision and empowering/facilitating



#### Community Participation Model (CPM)

- Listening Tour, Public Engagement & Collaboration
- Asking: "How can we, together, create the best possible project?"
- Cooperatives ... Unique Pooling Option
   & Easement Agreement Invited
   Everyone, Early . . . 300 kitchen tables .
   . . 50 cups of coffee per MW
- Earning Trust & Creating Vested Interests, Ownership and Shared Rewards



#### WINDRESOURCE HEARTLAND WIND, LLC OFFION AND EASEMENT AGREEMENT

- A. It is the intention of the Greater and the Greates to coopen to in the assemble, so of sufficient assembled other intention and the dealed present of commencial wind form in Milled and Rejease/Couries, Michigan, to be known as the "Wind Racoume Roject book forms" or similar names, the bible and mutually profitable.
- B. Gander is the sole fise owner, with all rights and printle gas arising inconnection the mowith, of the malestate described on Exh b it. A attached hearth and incorporated hearin ("the Essenant Francisca").
- C. Grants desires to insertigate the Essement Premises for the purposes of evaluating the Essement Premises' with bility for wind to war generating of electricity and sensiting wind power generating and transmission facilities so learning the effect of the Grantse also desires to obtain an option to purches containes we next rights a described below.

NOW, THEREFORE, in consideration of the mutual promises contained beam and for other good and valuable consideration which is hemby as in wholged, the parties ague as follow:

- 1. Option. Granter leady grant to Cardon de option ("Cybins"), to proclase carries usessues ("Essentent") you the Essentent Dimesse at described in Saction 1 show in accordance with the turn of this Agramment in consideration for Granter granting Grantes the Option Grantes upon mention of this Agramment chall pay to Granter one floward abliance and so cause (15,000,000). The time of the Option chall be the initial sum of time years (the Option Estaid"). By mutual agramment, this Option can be extended for an additional two years (2) with an additional appropriate to Cardon of other through of Dimesses. The world of Dimesses of the ward of Dimesses and so cause (15,000,000). This extends the Option procide agries without Options and Cardon chall place of moved appropriate document, necessarily statisfication to Granter in form and cube tence, residencing expression of the Option.
  - 2. Grentee's Activities during Option Period.
- 21 Duning the Option-Paried and any arters in theme of Grants, it against, sugainers, remainers and serings and appresentations chain that the right is mater upon the Eventuar Damiss of the purpose of Grantsturing all with and doing all things measuring the determine the switchilling of the Eventuar Damiss is 5 s what leaving to meaning system including but no thinsis 40, so advertise of 10 sings, giving age string with power relation, assume more two trees that the one termined to employing for and obtaining pagnitis, approach or other mind appropriate of demands cannot be sufficient to first the construction and operation of what therines, and about equipment and improvements, including without himsiston, application for so ming variance, so ming collatance, amend means, repeall we purmits and construction in permits, initiating the collating and/or scholating of means any utilities, conducting author method which of the form the string and the scholating of the string the string anticommental initiation, and doing all other two and actives of Grantse's vole discretion to determine the withhilly of the parmits of Grantse's and activity Audit in a congregation with Chanter's affectable's representation and including and the scholation of the string and Grantse's all the life and the string and the scholation of the
- 2.2 Granter shall cooperate with and as is t Grante during the Option Puriod, in applying for and obtaining permit and approvals (whether mytime or dominal measurage or appropriate at Granter's sole discribion), for the construction and operation of wind turbines and indared equipment and improvements, including without limitation, applications for recomprehences, sweing ordinances, amendments, special was paramet and construction permit.
- 23 No Wind Turbins or Access Roads without Consent. No twith standing anything horein to the contrary, the Paties agree that Creates shall not be permitted to install wind turbins or access roads on the Property without Creates's prior written consent. Bearing any environmental constraints, but constraints or entire into another interest and or expectation of the constraints, and deground utility constraints or requirements, the Collection Lines will be buried as close to property.





#### Countywide WE Zoning Ordinances:

- Balanced rules protecting the public's health, safety and welfare
- Protecting wildlife
- Providing clear rules for wind project development

Community Meetings & Unanimous Zoning Approvals by all 16 Townships

Public engagement, education and involvement never ends





#### **Future Farmers of America**

#### Debate Topic: "Wind Power – Are the Benefits Blown Away by the Risks?"





Download our new Community Wind iBook from our website: www.windresourcellc.com





#### Sustainable Energy Strategy Educational Materials

- Resilient Communities for America
- Community Sustainability Partnership
- NREL 10 Benefits and 10 Myths about Wind Power Benefits- <a href="http://www.nrel.gov/docs/fy05osti/37602.pdf">http://www.nrel.gov/docs/fy05osti/37602.pdf</a>
   Myths- <a href="http://www.nrel.gov/docs/fy05osti/37657.pdf">http://www.nrel.gov/docs/fy05osti/37657.pdf</a>
- The MSU Wind Energy Siting Bulletin provided to Michigan Townships Association, Michigan Municipal League, Michigan Environmental Council, <a href="http://www.emdc.msue.msu.edu/product/michigan-land-use-guidelines-for-siting-wind-energy-systems-982.cfm">http://www.emdc.msue.msu.edu/product/michigan-land-use-guidelines-for-siting-wind-energy-systems-982.cfm</a>
- NREL County Commissioners Planning Book distributed at the 2007 meeting of the Michigan Association of Counties <a href="https://www.nrel.gov/docs/fy07osti/40403.pdf">www.nrel.gov/docs/fy07osti/40403.pdf</a>
- The American Wind and Wildlife Institute www.awwi.org
- The Great Lakes Wind Collaborative, <u>www.glc.org/energy/wind</u>
- "Innovate, Manufacture, Compete" PewTrusts 2012 Clean Energy Plan http://www.pewtrusts.org/news\_room\_detail.aspx?id=85899443670

Please visit our websites for further information. www.windresourcellc.com