



# The Cornpicker

Bulletin of Fairbury, IL Rotary Club

*Fairburyrotary.com*



2009 - 2010 Officers

President . . . . . Josh Clemons  
 Pres. Elect . . . . . Charlie McDonald  
 Vice President . . . . .  
 Sec/Treas/Editor . . . . . Leroy McPherson

**DATE/TIME/**  
**PLACE:** July 21, 2009, 12:00 noon at Marchelloni's

**ATTENDANCE:** 21 + Robin Park & Eric Henry

**LOTTO:** Dean Moser & Rod Stevens

## ACTION ON THE AVENUES

### CLUB SERVICE

**Programs:**

7/28 - 8/11- OPEN  
 8/18 - Deb Moran/Charlie McDonald  
 8/25 - District Governor - Jay Stortzum

### COMMUNITY SERVICE



Deb says . . .The Red Cross will be giving AED & CPR on Aug. 15 from 8:30 - 5:30 free to military families. Non-military families - \$55.00. See Deb for details.

### Quips & Quotes

*In some circumstances, a refusal to be defeated is a refusal to be educated.*

### AREA CLUB MEETINGS

Bloomington	12:00 Noon	Thursday	Elks Club
Gibson City	6:45 a.m.	Wednesday	The Country Kettle
Gilman	6:05 p.m.	Tuesday	Gilman Lounge
Lincoln	11:50 a.m.	Wednesday	Elks Country Club
Normal	12:00 Noon	Wednesday	Bone Student Center

# Horizon Wind Energy

## Robin Park


Robin spoke of the proposed wind farm around Lexington and Chenoa and the benefits for the school system. Horizon is the 3rd largest company supplying wind power out of Huston, Texas. Robin has to split his time between Cal. and Ill. It takes a year of testing towers for wind at different heights and getting grid allocations. They employ 300 people. Their largest field is 400 mega watts. They look for 3 things: 1) wind; 2) Good transmission Grid. This one is owned by PGM and goes to Chicago then Baltimore; 3) Support of the community and county. McLean Co. has worked very hard with them. Illinois is one of the most active, going from 50 mega watts to 1,100 since 2003. We are ranked 10th in the nation. ISU has a renewable energy center. A wind farm of

100 mega watts will require 10-12 permanent jobs and around 100 construction jobs for a 12-24 month period. They are currently looking at 75,000 acres in this area with a 600 mega watt potential. They would like to start construction on a 300 mega watt site by Spring of 2011. They are waiting on county permits and noise, environment, etc. studies. They focus on the first 2-5 months to sign up as many people as possible. They work off of trust with the people. "It is like a marriage". Each wind turbine is considered a separate tax area from the farm ground, so there is no change in the property value. Each turbine costs \$2-3 million with a life expectancy of 30-40 years.



## Slide Presentation




### Horizon Wind Energy



- Horizon develops, builds, owns and operates wind farms throughout the U.S.
- Headquartered in Houston with offices in Illinois, Indiana, Minnesota, New York, Oregon, California, Kansas and Oklahoma
- Nearly 300 employees
- 3<sup>rd</sup> largest in the U.S. - 2,257 MW in operation and 13,400+ MW in development

Horizon

### Our Midwest Experience

<b>Twin Groves</b>		<ul style="list-style-type: none"><li>• 396 MW in McLean County, powering 120,000 homes – 1% of total IL power</li><li>• Fully operational in February 2008</li><li>• Power sold to Constellation Energy</li><li>• Largest wind farm east of the Mississippi</li></ul>
<b>Prairie Star</b>		<ul style="list-style-type: none"><li>• 100 MW (61 1.65 MW turbines) near Grand Meadow, Minnesota</li><li>• Began operating December 2007</li><li>• Power sold to Great River Energy</li></ul>
<b>Rail Splitter</b>		<ul style="list-style-type: none"><li>• 100 MW (67 1.5 MW GE turbines) in Tazewell and Logan Counties, Illinois, to power 30,000 homes</li><li>• Commissioning later this year</li></ul>

**2,000MW more under development in Illinois, 4,000+ in Midwest**

Horizon

## Why This Site?

All the elements of a successful wind project are here:

- Good wind
  - Comparable wind to the Twin Groves Wind Farm
  - Testing since May 2008
- Good access to transmission lines
- Supportive local government
- Supportive landowners and community
- Good power market

## When Could It Be Built?

Every wind farm goes through three phases: Development, Construction, and Operations

Development	Construction	Operations
<ul style="list-style-type: none"><li>• 2-5 years</li><li>• Acquire land rights</li><li>• Conduct studies and secure permits</li><li>• Secure transmission</li><li>• Measure wind</li></ul>	<ul style="list-style-type: none"><li>• 1-2 years</li><li>• Dig foundations</li><li>• Build/improve access roads</li><li>• Erect turbines</li><li>• Dig underground collection cables</li><li>• Build substation</li><li>• Clean up</li></ul>	<ul style="list-style-type: none"><li>• 30+ years</li><li>• Monitor operation of turbines</li><li>• Sell power</li><li>• Conduct repairs and regular maintenance</li><li>• Pay landowners</li></ul>

## Development Details

Development takes time because it requires many steps

### Development

- Acquire land rights
- Install met towers and assess the wind
- Secure permits from McLean County, IDNR, IHPA, USFWS, ACOE, IEPA, FAA (among others)
- Perform required studies
- Secure turbines (2-3 year lead time)
- Secure transmission rights
- Develop turbine layout and engineer the project

## Acquire Land Rights

Acquiring land rights is a key step in development



- Target is 70,000+ acres across Lexington, Lawndale, Gridley, Chenoa and Yates Townships
- Over 18,000 acres committed
- 600 MW multi-phase project
- Please let one of us know if you'd like a lease for review or if you'd like to participate

## Assess the Wind



- Measure the wind using "met towers" – 160-196' towers with guy wires anchored ~150' from base
- Need 24+ months of data to make good turbine siting decisions
- 3 installed currently, with 4-6 more mets to be installed
  - Let us know if you're interested in hosting a met tower

## Secure Permits

Building a wind farm requires many permits (think of a power plant)

- County Special Use Permit (SUP) – also work closely with Townships on road plan
- Illinois Department of Natural Resources (IDNR)
- Illinois Historical Preservation Agency (IHPA)
- U.S. Fish and Wildlife Service (USFWS)
- Army Corps of Engineers (ACoE) – wetlands
- Illinois Environmental Protection Agency (IEPA)
- Federal Aviation Administration (FAA)
- Among others...

## Studies

Horizon will spend \$500,000+ on required studies, several of which already are underway

- Transmission line/interconnection studies
- Avian and wildlife studies
- Communication/television studies
- IDNR and USFWS consultations
- Airport flight path studies
- Environmental and wetland studies
- Historical and archaeological studies
- Noise and sound analysis
- Road and transportation studies

} Underway

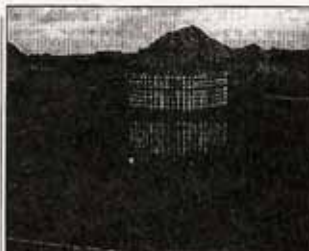
## Secure Turbines

Securing turbines takes time and money

- Turbines are now selling for over \$2 million each
- Total installation cost for a wind turbine is now well over \$3 million
- We're ordering turbines two to three years out
- Will not know which turbine for sure until we are close to construction
- 600 MW means:
  - 400 1.5MW turbines
  - 285 2.1MW turbines



## Construction Phase



Foundation framing and pouring



Construction can take 12 to 24 months, depending on project size



## Construction Phase (cont.)



Blade rotor lift

Trenching cable



## Operations Phase



Operations phase begins when the turbines "go live" and lasts for 30+ years

- Physically and electronically monitor operation of turbines
- Conduct repairs and regular maintenance
- Sell power
- Send operations payments to landowners

## Operations Phase (cont.)

Overhead transmission



Twin Groves in winter

## Payments to Landowners – Construction Phase

Horizon pays landowners for each phase of the wind farm



- **Construction Impact Payment** of \$6,000 per MW of turbines installed on the property per year
  - Paid when construction begins on your property
  - Inflated to year of construction
- **Soil Compaction Payment** – equal to
  - Additional 3 years' worth of crop damage at average yields and average prices
  - Average yield, price from previous 3 years
  - Paid after completion of construction

## Payments to Landowners – Operations Phase

Horizon pays landowners for each phase of the wind farm



- **Operating Rent** of \$6,000 per MW of turbines installed on the property per year, plus inflation
  - \$9,000 per year for a 1.5MW turbine
  - \$12,600 per year for a 2.1MW turbine
  - Paid quarterly after turbines go live
- **Example:**
  - 2 turbines × 1.5MW × \$6,000 = \$18,000 / year
  - \$18,000 per year = \$730,225 over 30 years at 2% inflation
- Plus **Crop Damage Payment** if we have to get back in the field to maintain turbines

## Respect for Community

Horizon believes in being a good community partner

Local impact of Twin Groves I and II

- 700,000 tons of aggregate (local)
- 42,000 cubic yards of concrete (local)
- 300 construction jobs for two years
- Over \$1.2 million in annual lease payments to landowners
- Approximately \$3.6 million in annual property tax payments to county and schools
- 40-45 full-time operations and maintenance jobs



## Respect for Community (cont.)

Horizon believes in being a good community partner

- Equipment donations to local fire departments and EMS/ambulance
- Local fuel contracts
- Donated tornado warning siren to City of Saybrook
- Sponsored 4th of July fireworks for Arrowsmith and Saybrook
- Numerous other donations to local community organizations