For you may palm upon us new for old: All, as they say, that glitters, is not gold.

- John Dryden (1687)
Doubled in One Year!

- Shattered all previous records in 2008 installing 8,358 MW of new generating capacity
- Swelled the nation’s total wind power generating capacity by 50%
- Channeled an investment of some $17 billion into the economy
More relevant some places than others.

Why?
This map shows the annual average wind power estimates at 50 meters above the surface of the United States. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed onshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.
Estimated Average Annual Wind Speeds

Typical average wind speeds on well exposed sites at 50m above ground

<table>
<thead>
<tr>
<th>MPH</th>
<th>m/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 19.0</td>
<td>&gt; 8.5</td>
</tr>
<tr>
<td>17.9 - 19.0</td>
<td>8.0 - 8.5</td>
</tr>
<tr>
<td>16.8 - 17.9</td>
<td>7.5 - 8.0</td>
</tr>
<tr>
<td>15.7 - 16.8</td>
<td>7.0 - 7.5</td>
</tr>
<tr>
<td>14.5 - 15.7</td>
<td>6.5 - 7.0</td>
</tr>
<tr>
<td>13.4 - 14.5</td>
<td>6.0 - 6.5</td>
</tr>
<tr>
<td>12.3 - 13.4</td>
<td>5.5 - 6.0</td>
</tr>
<tr>
<td>&lt; 12.3</td>
<td>&lt; 5.5</td>
</tr>
</tbody>
</table>

© Iowa Energy Center

This map was generated from data collected by the Iowa Wind Energy Institute under Iowa EPSCOR Center Grant No. 93-04-022. The map was created using a software package developed by Brower & Company, Andover, MA.

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“We’re Number Two!”

Iowa 2nd in nation in wind energy -- surpassing California!
--AP 6:28 PM CST, January 29, 2009

May see 12,000 turbines in Iowa in next 5 – 10 years.
--John Norris, IUB
Two Issues for Land Owners

- Protect what you have
  - Land value
  - Personal value

- Maximize opportunity
  - Personal enrichment
  - Public benefits
Wind Agreements Have Unique Character

- VERY long-term
- VERY lengthy document
- VERY complex language
- VERY new dynamic arrangements
- VERY asymmetrical bargaining...usually!
Agreements Transferable

- LLC – subsidiary of parent corp.
- Most agreements will be assigned
- Landowners will eventually be dealing with parties they do not know
- Could continue agreement with other parties
  - Developer’s lenders (and creditors)
    - Same rights as developer
“BOILERPLATE TERMS”

- Easement Boundaries
  - Construction
  - Permanent
- Use Description – other structures? O/H lines?
- Development Period Terms
- Length of Easement
- Crop Damage Reimbursement
- Indemnification
- Remedies
“TERMS OF ENDEARMENT”

- Opportunity to Negotiate
- Shape the Agreement to Owner’s Benefit
- Maximize Value
Financial Terms

- Per MW = at least $4k/yr. – trending to $5k
- Development Period -- $5 - $7/A. or $1,000+/yr.
- Royalty Payments = 3 - 5% gross energy
  - Definition of “gross revenue”?
  - Check audit provisions carefully
  - Short release period
  - Prefer triennial review
Financial Terms – cont.

- “Wind Print” = $20/ within perimeter
  - Min. 20 A.

- Distribution Lines $1+/ft. or $x/ A.

- Met Towers = at least $1,000 - $2,000/yr.

- Adjacent/overhang -- $5 - $7/A.
Financial Terms – cont.

- Other facilities
  - i.e. $10k+/yr. for 5 A. sub-station

- “Signing Bonus” = $1,000 - $2,500

- Attorneys Fees -- $500 - $750

- Audit Costs
Inflation Adjustment

- Absolutely Critical Piece
- Must begin at the beginning – Duh!
- 4% annual probably a minimum
- Re-openers could substitute
  - Would need to be very carefully drawn
Average Annual Inflation by Decade
© 2008 InflationData.com

Average Annual Inflation by Decade - 2008 InflationData.com
Inflation – cont.

- So what is up with all these contracts circulating "2.5%" inflation adjustments?
  - Allocates Inflation Risk to Landowner

- At year 15, landowner has lost 25% of the value of the base payment.

- Barely worth the cost to farm around the footings and roads.
<table>
<thead>
<tr>
<th>Contract Terms</th>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>5yr. + 3yr. (3)</td>
<td>11 mo. + 1yr. + 3yr. (2)</td>
</tr>
<tr>
<td>Compensation</td>
<td>$1k + $3k -- $4k max. (4)</td>
<td>$3/A or $1k max. (3)</td>
</tr>
<tr>
<td>Exercise</td>
<td>“Slice &amp; Dice” (7)</td>
<td>All or none (5)</td>
</tr>
<tr>
<td><strong>Lease/Easement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td>Broad (2) - <em>trans</em>?</td>
<td>Broad – <em>incl. transmission</em></td>
</tr>
<tr>
<td>Term</td>
<td>30yr. + 10yr. auto (8) w/reop</td>
<td>25yr. + 20yr. (3) (4) no reop</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.Per acre.</td>
<td>$20/A/yr B(2)</td>
<td></td>
</tr>
<tr>
<td>.Per Megawatt</td>
<td>+ % of $2.5k</td>
<td>$4k (5.3)</td>
</tr>
<tr>
<td>.Construction Period -</td>
<td>$2k/T</td>
<td>$4k/MW (5.4)</td>
</tr>
<tr>
<td>.– no turbine</td>
<td>$1k + $20/A after</td>
<td>$12/A</td>
</tr>
<tr>
<td>.During Construction Period</td>
<td>- 0 -</td>
<td>$500 or $3/A</td>
</tr>
<tr>
<td>.Met Tower</td>
<td>$4k/yr for permanent only</td>
<td>- 0 -</td>
</tr>
<tr>
<td>.Access (roads)</td>
<td>$1k &lt; 30k sq.’</td>
<td>$2/ft. x 1 (5.6)</td>
</tr>
<tr>
<td>.Collection System</td>
<td>- 0 -</td>
<td>$2/ft. x 1 (5.7)</td>
</tr>
<tr>
<td>Inflation</td>
<td>2.5%/yr – after 1 yr. (B)(2)</td>
<td>2.5%/yr – 1/1/11 (i.e. 5.3)</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>..Decommissioning</td>
<td>$50k (12)</td>
<td>No security (14.6)</td>
</tr>
<tr>
<td>..Aerial Spraying</td>
<td>Yes</td>
<td>Not yet</td>
</tr>
<tr>
<td>..Location Approval</td>
<td>Some (4) (7)</td>
<td>Will discuss walk away</td>
</tr>
<tr>
<td>..Crop Damage</td>
<td>Yes B(2)(c)</td>
<td>Yes (14.7)</td>
</tr>
<tr>
<td>..Compaction</td>
<td>Yes B(2)(c)</td>
<td>Yes (14.7)</td>
</tr>
<tr>
<td>..Payment of Property Tax</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>..Insure/Indemnify</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>..Confidentiality</td>
<td>None</td>
<td>(Art III)</td>
</tr>
<tr>
<td>..Most Favored Nations</td>
<td>Yes</td>
<td>Not yet</td>
</tr>
<tr>
<td>..Reimbursement of Expense</td>
<td>$500 - 750*</td>
<td>“We’ll do something”</td>
</tr>
<tr>
<td>..Royalty % of Revenue</td>
<td>TBD</td>
<td>“Don’t do that”</td>
</tr>
<tr>
<td>..Orientation to Fence Rows</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>..Min. Set Backs</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>..Noise (max. decibel w/in x’)</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>..Future Costs – if applicable</td>
<td>Loser pays</td>
<td>TBD</td>
</tr>
<tr>
<td>..”Signing Bonus”</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Landowners Wind Associations

- “Landowner Wind Associations in the West”
  - Frank and Midcap

- Rocky Mountain Farmers Union
  - Tony Frank, 303-238-3532;
    - tony.frank@co-ops.org.

- Model RFP
Landowner Association

- Formal Entity i.e. LLC
- Limits liability exposure of committee
- Organized format for conducting group business in orderly and fair way
Landowner Assoc. – cont.

- Maximize negotiating leverage
  - Strength in numbers
  - Could issue RFP for alternative proposals
  - Capture economies of scale

- Fulfill long-term common needs, i.e.
  audits, re-openers, complaints

- Create continuity for future owners
Formation Process

- File simple set of Articles with SOS
- Designate tax filing status, i.e. partnership
- Adopt Operating Agreement
  - Membership eligibility
  - Subscription cost, i.e. $50 + $.50/A.
  - Number and election of managers
  - Transferability of units
  - Terms of dissolution
Action Steps

- Authorize Committee to proceed
- Sign Subscription Agreements
- Elect Committee LLC Managers
- Set and Pay Dues
Other Expenses

- Attorney
- Engineering
- CPA
- Support staff
- Filing fees
- Document preparation
- Postage
Decibels

Jet airplane: 150
Pneumatic drill: 110
Industrial noise: 100
Stereo music: 90
Inside car: 80
Office: 70
Home: 60
Wind turbine: 50
Bedroom: 40
Whispering: 30
Falling leaves: 20