

MINUTES
Ideas discussed
DRAFT Idea Matrix

ENERGY

Current Regulatory Environment:

In August 2007, Illinois adopted a statewide renewable energy standard requiring the State's utilities to produce at least 25 percent of their power from renewable sources by 2025. Seventy-five percent of the electricity used to meet the renewable standard must come from wind; other eligible sources include solar, biomass, and existing hydroelectric power.

Idea: If we are going to build "green" energy, we need to ensure the manufacturing of the plants/materials stay in IL in addition to attracting new businesses (M/L)

Idea: Incentives to "green buyers" for "Buying from Illinois". Meaning, better pricing for the products if they are made within the State(S)

* Both of the above align with the Governor's investing in Companies that Invest in Illinois campaign, but takes the platform one step further.

Solar Power:

Exelon and Wanxiang Corporations are both building solar plants in Chicago as well as solar panel manufacturing plans in Rockford.

Solar energy is presently very expensive to implement. Technology needs to be improved in this area. For example, net metering on residential infrastructure is currently not cost effective.

Idea: Invest in research of better technology focusing on more cost effective equipment for the residential and small business consumer (M/L)

Wind Generation

Wind power is an important growing industry in Illinois. In fact, the 2007 Energy legislation mandates that 75% of the renewable energy portfolio be supplied by wind power. Currently, 8th amongst U.S. states in wind power production with 735.66 megawatts of existing capacity and another 171 MW under construction, Illinois has the potential capacity of almost 7,000 MW if wind energy. Without the addition of another farm, current research shows the plants will produce \$1.9B in revenue for the State.

Critical in the success of wind power is aggressive and consistent action on the part of the state executive and legislative branches. Illinois has many advantages and also several obstacles to success with wind power and related manufacturing. Illinois's single greatest disadvantage compared to other states is a lackluster business development program coupled with an historic lack of executive branch focus. Illinois is getting out-worked and out-sold in terms of wind power promotion by neighboring states with more aggressive governors and legislatures.

Idea: Gubernatorial and legislative support for all things wind through mandates, executive orders, and legislation (S).

Wind Infrastructure

Currently, property taxes on land, as well as infrastructure, owned by wind generation companies are determined through Public Act 095-0644 as it applies to the standard state-wide method of valuation of wind energy devices. The Public Act is set to expire in 2011 leaving an uncertainty for current and future companies with respect to taxes. Property tax rates will potentially vary widely by both county and over time within the same county. Illinois already has one of the nation's highest property tax rates on wind farms. Combining this high rate with the additional element of uncertainty for even higher property taxes leaves the State at a server disadvantage compared to other Midwestern states.

Idea: Extend Public Act 095-0644 past 2011(S)

Wind Sales

Illinois is one of few states that charges sales/use tax on wind energy equipment. 40 other states, including all adjacent states, exempt wind energy equipment from sales/use tax. This lack of exemption essentially means that Illinois wind energy projects have a 6.25% higher cost of materials compared to competitive states.

Idea: A uniform state-wide sales/use tax exemption should be adopted for wind energy equipment. This will eliminate a competitive disadvantage of Illinois when compared to our neighboring states (S).

Transmission Infrastructure

Sustainable energy is often not produced near the consumption source. Therefore, energy transmission infrastructure is imperative in the transportation of sustainable energy to the areas of need. The State's transmission system has not been upgraded in 50+ years. Thus, the system simply is incapable of transporting wind energy from Central Illinois and the Midwest to the necessary metropolitan areas.

The lack of transmission is affecting additional wind development in Illinois and the Midwest now. Several wind development firms with development projects in this state are aligned with the understanding that lack of Extra High Voltage ("EHV") transmission enabling energy flows to the east of Illinois is inhibiting further wind development in the state.

Idea: Upgrade the State's Transmission Infrastructure system (S/M).

ENERGY EFFICIENCY

The 2007 law also includes an energy efficiency portfolio standard that requires utilities to implement cost-effective energy efficiency measures to reduce electric usage by 2 percent of demand by 2015.

Current Projects

Electrical distribution companies (ComEd, Ameren, City of Naperville, etc) all have programs which incentivize customers to reduce energy consumption. These programs are a “welcome” factor for green improvements on both the residential and commercial levels. However, the programs are not being advertised enough nor utilized to attract Illinois businesses

Idea: Use the current energy efficiency laws to attract and expand Illinois businesses to become more energy efficient (S/M)

Idea: In order to become more energy efficient, retrofitting projects must be complete thereby increasing the number of “green” jobs in IL (union jobs especially) (S/M)

Idea: Public buildings, etc should take the lead to implement the retrofits and serve as an example to the private sector (S/M)

Idea: Further support of LEED buildings and construction (S/M)

Rebates and Financing

Many of the energy efficiency projects result in a rebate from the electric companies. Meaning, once a light bulb is changed and the electrical demand has decreased, the corporation will receive a rebate for the increase in efficiencies. However, what happens when a business or residential customer does not have the start up money to finance the project?

Idea: Create financial products that lead to a “green” portfolio (M)

Advanced Vehicle Technology

Electric cars are on the federal government's agenda as one of the forefront ideas in curbing America's foreign dependency on oil.

Idea: Retrofit car manufacturing plants in IL to produce electric cars, specifically Ford and Mitsubishi.

Midwest High Speed Rail Network

Just as Illinois is a hub for waterway shipping with the Mississippi River and Lake Michigan, the state could also become a transportation hub for passenger railways.

Idea: What will it take to get this program off the ground? Studies, etc?

* This idea is covered heavily in the Governor's Plan.

Recycling Programs

Illinois abandoned mandatory recycling programs back in the 1980's. States like California and Michigan continued their programs and charge a "deposit" on cans and bottles.

Idea: Capitalize on the "green movement" and re-introduce the deposits for recyclables

Idea: 2007 Energy Legislation = comparable legislation for mandatory landfill reductions

Agriculture

Illinois has a very large corn export business. Taiwan is the largest importer of Illinois.

Idea: Are there any new products Illinois can introduce to importers which would increase their corn consumption?

Appendix A: Resources

The Economic and Environmental Impacts of Clean Energy Development in Illinois

This study examines the economic, employment and environmental benefits that Illinois could realize by increasing investment in renewable energy and energy efficiency.

http://www.illinoisbiz.biz/dceo/Bureaus/Energy_Recycling/Energy/Clean+Energy/04-UIC_Study.htm

Illinois Commerce Commission Energy Procurement Process for 2010

The below link discusses how energy is purchased on the open market and the proposed plan for 2010.

<http://www.icc.illinois.gov/electricity/procurementprocess2010.aspx>

Generation Capacity-Current

Note: Capacity numbers are based off of summer peak usage. Thus, typically, the month of July is used as a baseline.

Net Electricity Generation	Illinois	Share of U.S.	Period
Total Net Electricity Generation	17,142 thousand MWh	4.6%	Jul-09
Petroleum-Fired	9 thousand MWh	0.4%	Jul-09
Natural Gas-Fired	373 thousand MWh	0.4%	Jul-09
Coal-Fired	8,189 thousand MWh	5.1%	Jul-09
Nuclear	8,376 thousand MWh	11.5%	Jul-09
Hydroelectric	NM	NA	Jul-09
Other Renewables	171 thousand MWh	1.6%	Jul-09

Illinois ranks as the 5th largest generation state in the U.S.

http://tonto.eia.doe.gov/state/state_energy_rankings.cfm?keyid=33&orderid=1

APPENDIX B: WIND POWER

Illinois has significant current wind energy assets in place. In the near future, wind power generation as well as wind energy manufacturing will be expanding in Illinois at a rapid rate. A large number of wind farm projects are coming on-line in 2010, with a strong pipeline of under construction and planning stage projects supplementing the current base of wind energy production.

Under the Illinois Renewable Portfolio Standard, 25% of our electricity must come from renewable sources by 2025, with 75% of that amount being supplied by wind power. Wind power is currently, and will be in the future, Illinois's most important and viable source of renewable energy.

Illinois has enormous potential with both wind power generation and wind energy manufacturing. Illinois has a set of distinctive advantages with regards to wind power and related manufacturing. However, other states are surpassing Illinois in this critical area of renewable power. Closing this competitive gap will bring economic benefits and well-paying jobs to Illinois. The following set of recommendations is focused on making Illinois a premier provider of wind energy and wind manufacturing.

BRINGING WIND POWER SCALE: WHERE ARE WE NOW AND WHERE WOULD WE NEED TO BE

A key element in evaluating the future for wind power in Illinois is to determine our current generating status as compared to what level of megawatt hour generation is needed by 2025 to meet the RPS standards for wind power.

Illinois used a total of 17,142,000 MWh in July 2009, of which 171,000 MWh (roughly 1%) came from renewable sources (mostly wind power). Using the current MWh generation numbers, the 25% renewable RPS target would equal 4,285,500 MWh in renewable power generation. This is approximately 50% of the current generating capacity of either nuclear or coal-fired plants in operation.

Wind power is to generate 75% of the renewable energy capacity, which equates to 3,215,000 MWh per month. This is obviously a very aggressive leap in a 15 year time frame, from under 171,000 MWh to 3,215,000. To meet this monthly MWh production number by 2025, Illinois's wind power capacity would have to make a near thirteen fold increase in capacity. This is a jump from the current

1,225 megawatt capacity in operation to approximately 14,000 megawatts of future capacity. To meet the RPS target, Illinois would need between 14,000 and 15,000 megawatts of wind power operating at a 33% capacity.

This wind power target of 15,000 megawatts is an aggressive goal but it is also an attainable goal. Currently, Illinois has 1,225 MW of wind power in use. However, a large amount of capacity is in the developmental pipeline, in the following amounts:

- Contemplated: 749 MW
- Proposed: 9,114 MW
- Permitted: 2,656 MW
- Construction: 877 MW
- Completed: 1,225 MW
 - TOTAL IF ALL REACHED COMPLETION: 14,621 MW
 - TOTAL CONSTRUCTION+PERMITTED: 3,533 MW

There is already 14,621 MW in varying stages of development, essentially fulfilling the necessary wind power goals. Even conservatively assuming additional projects over the next decade, thousands of additional megawatts could also be brought into the development pipeline. The key to the future success of wind power in Illinois is turning the nearly 10,000 MW of contemplated and proposed projects into reality.

RECOMMENDATIONS

- **AGGRESSIVE EXECUTIVE AND LEGISLATION BRANCH ACTION**
 - The governor and his business development staff operating through DCEO are the single most important factors in driving the success of Illinois wind power generation and manufacturing.
 - What should the governor/executive branch be doing?
 - Appear in person and with strong DCEO team at all significant wind industry trade shows.
 - Personally contact all existing wind power generators and manufacturers in Illinois to thank them for their presence and to ask what can be done to further their business in Illinois.
 - Personally contact prospective generation and, in particular, manufacturing companies to encourage them to locate in Illinois.
 - Organize tours of Illinois facilities with prospective manufacturers and generation companies. Include the local state representatives and also the majority and minority legislative leaders. Also involve the federal legislators for the proposed area.

- Personally push the legislative recommendations listed below through the next legislative session with a goal of passage of all four recommendations by the end of 2010.
- **PROPERTY TAXATION OF WIND ENERGY DEVICES**
 - Extension of Public Act 095-0644 as it applies to the standard state-wide method of valuation of wind energy devices.
 - The current state-wide standard of valuing wind energy devices at a \$360,000/MW (adjusted for inflation) is set to expire in 2011, in accordance with the provisions of PA 095-0644.
 - The expiration of this state-wide standard will return the valuations of wind energy devices to a county-by-county standard for property taxes. Property tax rates will potentially vary widely by both county and over time within the same county.
 - This level of uncertainty will be a strong disincentive for wind energy investment and financing. Wind energy development requires long-term capital expenditures and financing, particularly for large wind farm projects.
 - This uncertainty of taxation rates will also be used by competitive states to recruit wind energy investors away from Illinois. Illinois already has one of the nation's highest property tax rates on wind farms. Combining this high rate with the additional element of uncertainty for even higher property taxes will be serious mistake.
- **LONG-TERM POWER AGREEMENTS**
 - Current state regulations regarding power purchases limit purchasing contracts to one year.
 - The constantly renewing one year contracts introduce another level of uncertainty into wind energy financing and development.
 - Long-term purchase contracts will allow wind energy producers to enter into favorable extended contracts with utilities. The existence of a long-term, contractual supply arrangement will make obtaining financing for wind farm development both easier and less risky, translating into lower financing costs.
 - Long-term purchase agreements also would supplement the goal of the RPS by introducing greater certainty in the ability of producers to meet the 25% renewable energy standard.
- **SALES/USE TAXES**
 - Illinois is one of few states that charges sales/use tax on wind energy equipment. 40 other states, including all adjacent states, exempt wind energy equipment from sales/use tax. This lack of exemption essentially means that Illinois wind energy projects have a 6.25% higher cost of materials compared to competitive states.
 - Illinois does offer a sales/use tax exemption on building materials, including wind energy materials, for projects located in enterprise zones. 92 enterprise zones are currently located throughout the state.
 - The challenge of enterprise zones is that they are largely centered on urban/developed areas that generally are not the ideal locations for wind energy production. Enterprise zones have been extended from towns in a very narrow fashion to encompass wind energy projects near the town in order to claim the sales/use tax exemption (for example, the Rail Splitter Wind Farm near Lincoln).

- This extension of enterprise zones, while useful in short-term, ad hoc manner, is not suitable for the promotion of long-term wind energy projects of useful scale.
 - These extensions are limited to 50 miles or less from the core of the enterprise zone, which precludes vast stretches of the states best wind generating geography.
 - The use of enterprise zones is also subject to the local enterprise zone boards. Different boards may have widely differing attitudes regarding wind power. This creates uncertainty and unnecessary disparate treatment of wind energy production across the state, resulting in another disincentive for wind power investment.
- A uniform state-wide sales/use tax exemption should be adopted for wind energy equipment. This will eliminate a competitive disadvantage of Illinois when compared to our neighboring states.
- **RAISE NET METERING THRESHOLD**
 - Currently, Illinois has a two-tiered system for utility customers to sell back power under net metering.
 - Net metering under 40kW: rate payer received credit at full retail rate
 - This full credit greatly enhances the return on investment for small-scale renewable energy projects. This also significantly reduces the payback period on these investments.
 - Net metering from 40kW to 2000kW: rate payer receives value of “avoided cost” which is significantly lower than the retail power rate (possibly in the range of 40%-50% of the retail rate).
 - The use of avoided cost credit reduces the rate payer’s return on investment for renewable energy projects where power could be sold back to the grid.
 - The extended payback period serves as a strong disincentive to commercial clients to invest in local renewable power.
 - For example, a 100,000 square foot warehouse could be an ideal candidate for installing solar power on the roof, a wind turbine on the property or both. However, this investment in local renewable power is expensive. Net metering allows them the opportunity to achieve an accelerate return on their investment. If the credit they receive is diminished by the current two-tier system, then they are less likely to pursue this renewable energy project.
 - Increasing the net metering threshold to 2000kW will make this commercial rate payer much more inclined to consider a renewable project.
 - The raising of the net metering threshold lays the groundwork for small to medium-sized renewable projects to be done across the states in both residential and commercial settings.