

**Why are NY Political and Media Leaders Grossly Overestimating the Economic Benefits of Iberdrola’s Insistence on Investing \$2 billion in NY “Wind Farms”?**

New York political and media leaders are grossly overestimating the favorable local and state economic benefit that would result from Iberdrola’s proposed investment of \$2 billion in “wind farms” in New York.

Public comments from NY political leaders, news stories, and editorials on the impending NYS Public Service Commission’s Iberdrola decision emphasizes that Iberdrola would invest \$2 billion in “wind farms” in New York if the Spanish company is permitted by the PSC to acquire Energy East and its electric and gas distribution companies in New York, Maine, Massachusetts and Connecticut.

Emphasis on the proposed \$2 billion investment suggests that NY leaders do not yet understand that *a \$2 billion investment in “wind farms” in NY would have very little favorable economic benefit in the areas where the “wind farms” would be built or in the state.* The economic impacts may even be negative.

This brief paper explains that there would be little, if any, net favorable local or NY state economic impact from a potential \$2 billion Iberdrola investment in NY “wind farms because:

- Potentially favorable economic impacts are typically overstated by the wind industry and its advocates within governments, and
- Other factors, often ignored, tend to offset most or all of the favorable impacts.

**Overstated Economic Benefits of “Wind Farms”**

**1. Very little of the \$2 billion “investment” would be spent locally or have local economic benefit.**

This fact becomes clear when the make-up of a \$2 billion investment in “wind farms” is analyzed.

The share of total “wind farm” capital costs accounted for by the various elements of cost (i.e., turbines, blades, towers, assembly and installation, etc.) varies widely among “wind farms” depending on such factors as their size, location, terrain, distance from a transmission line, and when turbines were purchased. (“Wind farm” capital costs have increased dramatically since 2000-2002.<sup>1</sup>)

Detailed information on project costs generally is not revealed by “wind farm” owners. However, a 2006 report from the National Renewable Energy Laboratory (NREL)<sup>ii</sup> provides rough estimates of the breakdown of total project costs based on 2000-2003 data. Undoubtedly, costs have changed but the NREL estimates permit calculating the following rough estimates of the shares of a \$2 billion capital investment that would be expended for various elements of the total cost:

<u>Element of Capital Cost</u>	<u>% of total cost</u>	<u>Share of \$2 Billion</u>
• Turbine, Blades & Tower	73.8%	\$1,476,800,000
• Foundation	3.3%	65,600,000
• Transportation	3.6%	71,300,000
• Roads, Civil Works	5.6%	112,600,000
• Assembly & Installation	2.7%	54,200,000
• Electric Interface & connection	8.7%	173,900,000
• Permits, Engineering	<u>2.3%</u>	<u>45,600,000</u>
Totals	100%	\$2,000,000,000

This breakdown is helpful in identifying the share of costs that might have some favorable local or state economic benefits (but note that other factors, described below, will offset potential favorable benefits). Specifically:

- a. As the above table shows, the overwhelming share of the capital cost of a “wind farm” is for turbines, blades, towers, electronics, cables, etc. that are manufactured elsewhere. A majority of wind turbines being installed in the U.S. apparently are imported from other countries. Little, if any, of the money spent for the turbines, blades, towers and related components -- making up nearly 3/4ths of the capital investment -- would be spent in NY.
- b. Foundation costs include cement and aggregate for concrete, steel rebar, and earth moving. Aggregate, some concrete workers, and operators for earth moving equipment may come from the local area or region. However, cement, rebar and earth moving equipment would originate elsewhere and may be imported.
- c. Turbines, towers, and blades would be transported from ports or from manufacturing locations outside NY. Transporters for this equipment probably would be located near manufacturers, not near “wind farm” sites.
- d. Roads and civil works probably would require workers and equipment from the local area or region but a significant share of the cost probably would be for the repair of existing roads that are destroyed when moving the heavy turbine and tower components over them.
- e. Assembly and installation of turbines, blades, towers and related equipment generally is performed by specialists who travel to “wind farm” sites and, therefore, typically involve few local workers.
- f. Electrical interface and connection costs would include cabling to collect electricity from turbines and move it to a substation, the substation itself, and transmission lines to the nearest existing transmission line that could handle the full rated output of the “wind farm.” Transmission line costs will vary widely with distance. The required equipment would not be purchased locally.
- g. Permitting and licensing costs would involve owner’s project developers, as well as lawyers, consultants, government fees, and other personal service costs that would likely involve few local workers.

2. **Few local jobs result from “wind farm” construction or operation.** The wind industry and its advocates within governments often exaggerate the number of jobs during construction (which may take only 6 to 9 months) – as well as the number of permanent jobs -- that are likely to be filled with local workers.

In fact, as indicated earlier, few of the jobs during “wind farm” construction are filled by local workers. Instead, most jobs (as many as 80%) are filled by specialized workers brought in from other areas. Jobs that are filled locally during the construction period may include transit-mix drivers, laborers, and some heavy equipment operators. Few permanent jobs are created and many of these will be filled by technicians brought in temporarily for maintenance work.

Wind industry lobbyists also typically overstate the number and economic benefit of “indirect” jobs (e.g., those in restaurants and hotels because of construction activity) because the construction

activity is short lived and project workers brought in from other areas are likely to go home on many weekends. Most of their wages are likely to be spent (and income taxes paid) in their home towns.

3. **Few supplies and services are procured locally and the favorable economic impact is small.** Wind energy advocates often overstate the favorable local economic benefit of “wind farms” in still another way. They pretend that the full cost of anything procured locally provides a favorable local economic benefit. In fact, very little money is spent locally for supplies and services and *only the local value added portion* of the cost (not the whole cost) may provide some local economic benefit.<sup>iii</sup>
4. **Rental income paid to land owners may have little or no local economic benefit.** “Wind farm” developers claim that rental or lease payments to landowners who permit construction of wind turbines on their property provide a significant local economic benefit. In fact, payments received by landowners *have local economic benefit only if that money is spent or saved locally*. Money received by absentee landowners or money spent or invested elsewhere doesn’t help the local economy.

### **Adverse Economic Impacts that Offset Favorable Impacts.**

In addition to adverse environmental and ecosystem impacts that are increasingly being documented (e.g., noise, impact on birds, bats, wildlife habitat, scenic impairment), “wind farms” have significant adverse economic impacts that are often ignored by the wind industry and overlooked by government officials.

1. **NY and other states are likely to lose significant corporate income tax revenue.** As explained in a separate paper,<sup>iv</sup> Energy East companies that would be acquired by Iberdrola paid about \$114 million in federal and state corporate income taxes in 2007. However, because of extraordinarily large federal and state tax breaks and subsidies, companies owning “wind farms” are able to avoid paying hundreds of millions of dollars in federal and state corporate income tax. Therefore, if Iberdrola is permitted to own “wind farms,” the company would almost certainly be able to avoid, for years, paying corporate income tax on profits from the electricity and gas distribution companies obtained through its Energy East acquisition. (Note that tax burden avoided by “wind farm” owners is shifted to ordinary taxpayers who do not enjoy such tax shelters.)
2. **Local governments may also lose tax revenue if Iberdrola was exempt from paying property tax on “wind farms.”** New York law permits exemption from property taxes for “wind farm” equipment, subject to agreement with local governments and school districts. This exemption authority has been exercised in some cases and has resulted in PILOT (payment in lieu of taxes) agreements that result in some payments by “wind farm” owners to local governments, school districts, and non-profit groups. Such agreements – which may be attractive to local officials now in office – are not necessarily in the best long term interest of local governments, or taxpayers who must pick up property tax burden escaped by wind farm owners.
3. **Profits from the Energy East’s NY electricity and natural gas distribution companies acquired by Iberdrola probably would flow out of New York and out of the US.** These profits are derived from electric and gas customers in the states where Energy East companies now operate.
4. **Electric customers would almost certainly experience higher monthly electric bills.** Electric customers in New York are likely to be affected adversely in three ways by the addition of more “wind farms”:
  - a. The full, true economic cost of electricity from wind is higher than electricity produced from traditional energy sources. Also, the value of electricity produced from wind is lower because it

is produced only when wind speeds are within a certain range. The electricity is intermittent, volatile, and unreliable. Further, it is most likely to be produced at night in colder weather rather than on hot summer late afternoons in July and August when demand tends to be highest.

- b. Wind turbines cannot be counted on to produce electricity at the time of peak demand. Therefore, reliable (“dispatchable”) generating capacity – not intermittent, unreliable wind turbines – will have to be added to meet increases in peak electricity demand in NY and/or to replace existing generating capacity. Electric customers could end up paying twice; once for unreliable wind capacity and again for capacity that can be counted on to meet peak demand.
  - c. The funds used by NYSERDA to provide subsidies to “wind farms” owners are collected from electric customers via a surcharge added to the monthly bills.
- 5. Loss of value for property near “wind farms.”** While the wind industry has sought to claim otherwise, there is no longer any serious doubt that “wind farms” have an adverse effect on the value of neighbor’s property and, often, their quality of life.
- 6. Money is drained from local economies.** New York residents already pay some of the very highest electricity prices and taxes in the nation. Adverse economic impacts listed above could result in an even greater drain on the disposable income of citizens in much of New York. When more money must be paid in taxes and for monthly electric bills, less is available to pay for food, clothing, shelter, medical expenses, education, recreation, contributions to charities, savings, or for spending with local businesses. Reduced local spending means fewer local jobs. The inevitable result would be additional downward pressure on local economies in upstate and western New York.

**Conclusion.** Political and media leaders’ misperceptions about the true economic benefits of “wind farms” are unfortunate – especially for New York’s taxpayers and electric customers, and for local economies that are being drained of their economic lifeblood. Hopefully, these leaders will soon catch up with the facts about the true economic impacts of “wind farms.”

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Endnotes:

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<sup>i</sup> US Department of Energy, Annual Report on U.S. Wind Power Installation, Cost, and Performance Trends: 2006, May 2007, pp. 15-16.

<sup>ii</sup> NREL, Wind Turbine design Cost and Scaling Model, December 2006, p. 35

<sup>iii</sup> This point can be illustrated by the local purchase of gasoline used during construction. The total cost of a gallon of gasoline may be \$4.00 but the only significant parts of that \$4.00 that may add local value are (a) the wages for the service station operator, (b) local taxes paid by the station owner, (c) the station owner’s profit margin – if locally owned, and, (d) perhaps some small part of the cost of transporting gasoline to the station – if by a local transporter. So, potential local economic benefit might total \$0.50 or less per gallon (for the local value added), not the remainder of the \$4.00 that would go to a crude oil producer, refiner, wholesaler, and transporters and for federal and state taxes.

<sup>iv</sup> “Why are New York Political and Business Leaders putting the interests of Spain-based Iberdrola ahead of the interests of New York’s taxpayers and electric customers?” July 30, 2008, <http://www.windaction.org/documents/17211> and <http://www.wind-watch.org/alerts/2008/07/31/why-are-new-york-political-and-business-leaders-putting/>