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Will the Iberdrola \$200 million investment in NY “Wind Farms” required by NYS PSC as a condition of the acquisition of Energy East have a negative economic impact in NY?

For several years, New York government officials and political leaders have been grossly overestimating the favorable local and state economic benefit that would result from investments in “wind farms.” That error has been continued with the PSC’s approval of the Iberdrola acquisition of Energy East.

Key reasons why the overestimates have occurred are identified and explained in a September 1, 2008, paper, ‘*Why are NY Political and Media Leaders Grossly Overestimating the Economic Benefits of Iberdrola’s Insistence on Investing \$2 billion in NY ‘Wind Farms’?*,’ that has received wide distribution in New York and elsewhere.

Since that paper was written, the NYS Public Service Commission (NYS PSC) has approved Iberdrola’s acquisition of Energy East, but with a number of “conditions.” One of the conditions is that Iberdrola must invest at least \$200 million in “wind farms” in NY. Since this is only 1/10th of the \$2 billion originally analyzed, this paper shows the same basic calculations as the September 1 paper but with the calculations based on a \$200 million capital investment.

This paper also identifies a key factor that was not emphasized in the September 1, 2008 paper. That is, once the acquisition is complete, all or part of Energy East’s profit from its companies that operate in New York and other states -- \$365 million before taxes in 2007ⁱ -- may flow upward to Spain-based Iberdrola and not into the economies of the states where Energy East operates or its shareholders reside.

Unfortunately for New York’s taxpayers and electric customers – and the citizens who are adversely affected by “wind farms, the PSC order reaffirmed the commissioners’ fascination with the expansion of wind energy in NY. It showed no real understanding that investments in “wind farms *have very little, if any, favorable economic benefit in the areas where the “wind farms” would be built.*

Like the September 1 paper cited above, this paper:

- Reviews the reasons why “wind farms” have little, if any, net favorable local or NY state economic impact.
- Points out that potentially favorable economic impacts are typically overstated by the wind industry and its advocates within governments, and
- Identifies other factors, often ignored, that tend to offset most or all of the favorable impacts.

Much of the wording that follows is identical to the September 1 paper, but the dollar numbers have changed (reduced to 1/10th of the values in the earlier paper.), but additional data on Energy East profits are provided below -- in paragraph 3 under “Adverse Economic Impacts that Offset Favorable Impacts.”

Overstated Economic Benefits of “Wind Farms”

1. **Very little of the \$200 million “investment” would be spent locally or have local economic benefit.** This fact becomes clear when the make-up of a \$200 million 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.ⁱⁱ)

Detailed information on project costs generally is not revealed by “wind farm” owners. However, a 2006 report from the National Renewable Energy Laboratory (NREL)ⁱⁱⁱ 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 \$200 Million</u> |
|-----------------------------------|------------------------|-------------------------------|
| • Turbine, Blades & Tower | 73.8% | \$147,680,000 |
| • Foundation | 3.3% | 6,560,000 |
| • Transportation | 3.6% | 7,130,000 |
| • Roads, Civil Works | 5.6% | 11,260,000 |
| • Assembly & Installation | 2.7% | 5,420,000 |
| • Electric Interface & connection | 8.7% | 17,390,000 |
| • Permits, Engineering | 2.3% | 4,560,000 |
| Totals | 100% | \$200,000,000 |

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.^{iv}
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,^v 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. Energy East’s 2007 Annual Report shows income of \$365 million in 2007 before taxes and \$251 million after paying taxes of \$114 million. As explained above, “wind farm” tax breaks are likely to permit Iberdrola to avoid paying all or much of the income tax that has been paid by Energy East. So, after the acquisition, all or part of the future profit from Energy East companies may flow upward to Spain-based Iberdrola.
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.

Further, New York political leaders and regulators seem unaware of or uncaring about the adverse environmental, ecological, scenic, and property value impacts of "wind farms."

Hopefully, these leaders will soon catch up with the facts about the true impacts of "wind farms."

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Endnotes:

ⁱ Energy East's 2007 Annual Report, p. 16. \$365,356,000 income before taxes. http://library.corporate-ir.net/library/10/104/104038/items/285227/EAS_2007_annualreport.pdf

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

ⁱⁱⁱ NREL, Wind Turbine design Cost and Scaling Model, December 2006, p. 35

^{iv} 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.

^v "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/>