The temporary Production Tax Credit for wind energy was enacted in 1992. If the industry has not caught up with the market by now, then it will never catch up with the market. It is vital to the future of our economy that electricity prices be reduced, not hidden by tax credits. I am from a farm family and we oppose the extension of this tax credit. Most farmers who have been pushed aside by the wind industry, which is more interested in capturing tax credits than compensating farmers for the loss of their property value, do not support the extension of this tax credit. Recently, I spoke with a farmer who actually rented property on which wind turbines sit. He told me that drainage tile was crushed by the heavy equipment and cranes, soil was compacted, electrical cables that were supposed to be buried five feet deep were exposed at the surface, and rock was thrown into the field, which caused $1,000 damage to equipment. You will find that the majority of farmers and landowners near these wind "farms" oppose the extension of this tax credit and other supports. The following excerpts were written by Glenn R. Schleede:

Point 4: Large parts of the true capital and operating costs of electricity from wind are hidden because massive federal, state and local tax breaks and subsidies shift much of its true cost from “wind farm” developers and owners to taxpayers and electric customers. Wind industry officials and lobbyists as well as the politicians, regulators, and other government officials, government contractors, and non-government organizations (NGOs) that support wind industry interests, often understate greatly the true cost of “wind farms” and electricity produced from “wind farms.” Sadly, some electric utility officials also participate in hiding the true costs of electricity from wind. When initially proposed, the rationale for providing tax breaks and subsidies for wind energy was to help a relatively new technology for producing electricity compete with established electric generating technologies until advances in technology would permit wind to compete without subsidies. However, the massive tax breaks and subsidies now available and the wind industry’s well-financed lobbying efforts to preserve, expand, and extend them makes clear that there is no longer any serious expectation that electricity from wind will become competitive or that significant advances in wind technology are likely to ever permit wind to become a competitive source of electricity.

The US Energy Information Administration (EIA), in an April 2008 report, indicated that federal tax breaks and subsidies during 2007 averaged $0.2337 per kWh of electricity produced by wind during 2007. However, that EIA report underestimated the true cost of the tax breaks and subsidies for wind because it:

- Failed to take into account either the value of 5-year double declining balance accelerated depreciation (described below) that is available for “wind farm” equipment, but not available for reliable generating units.
- Did not cover, of course, over $1 billion in additional tax breaks and subsidies for wind energy awarded in 2009 by the US Departments of Energy and Treasury (authorized by various “stimulus” measures) allegedly to create jobs in the US. As indicated below, a significant share of these awards were for projects owned by foreign entities, covered equipment manufactured in other countries, or flowed to owners of “wind farms” were already under construction or completed.
- Did not cover state and local tax breaks and subsidies for “wind farm” owners.
Among the many federal, state and local tax breaks and subsidies that reduce “wind farm” developers’ and owners’ costs — while shifting those costs to ordinary taxpayers and electric customers — are the following:

A. Federal tax breaks and subsidies.
   1. Accelerated Depreciation (MACRS). Nearly all the capital cost of a “wind farm” — whether financed with equity or debt — can be recovered through deductions from otherwise taxable income using 5-year double declining balance accelerated depreciation (5-yr.-200%DB). These deductions from taxable income reduce tax liability at the owner’s marginal tax rate, usually $35 for each $100 deduction. All of the eligible capital cost can be written off (“recovered”) over 6 tax years at the following rates — illustrated with $100,000,000 in eligible capital cost:

<table>
<thead>
<tr>
<th>Tax Year</th>
<th>% of Capital investment</th>
<th>Amount</th>
<th>Further reduction in income tax liability (in addition to PTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>20%</td>
<td>$20,000,000</td>
<td>$ 7,000,000</td>
</tr>
<tr>
<td>2nd</td>
<td>32%</td>
<td>$32,000,000</td>
<td>$11,200,000</td>
</tr>
<tr>
<td>3rd</td>
<td>19.2%</td>
<td>$19,200,000</td>
<td>$ 6,720,000</td>
</tr>
<tr>
<td>4th</td>
<td>11.52%</td>
<td>$11,520,000</td>
<td>$ 4,032,000</td>
</tr>
<tr>
<td>5th</td>
<td>11.52%</td>
<td>$11,520,000</td>
<td>$ 4,032,000</td>
</tr>
<tr>
<td>6th</td>
<td>5.76%</td>
<td>$ 5,760,000</td>
<td>$ 2,016,000</td>
</tr>
<tr>
<td>Totals</td>
<td>100%</td>
<td>$100,000,000</td>
<td>$35,000,000</td>
</tr>
</tbody>
</table>

2. Note that these deductions from otherwise taxable income and from tax liability could be taken regardless of whether the $100 million “wind farm” investment is financed with debt or equity.

3. Note also that, in addition to the further reduction in tax liability, this generous accelerated depreciation deduction for federal income tax purposes has two other huge benefits; specifically:
   a. Prompt recovery of all the owner’s equity investment. Quite likely, the equity investment by “wind farm” owners and their “tax partners” would be no more than 30% with the remaining borrowed to reduce its cost. As the table above shows, all of the equity investment would be recovered thru depreciation deductions early in the second tax year and in less than 1 year if the project begins operating late in the first tax year. With no remaining equity investment, the owners’ return on equity would be infinite.
   b. A large interest-free loan. The depreciation deduction continues even though all equity has been recovered. Thus, in effect, the owners receive an interest free loan, courtesy of US taxpayers for an amount equal to the debt financing.

4. Wind Production Tax Credit (PTC). A “wind farm” owner is eligible for a Wind PTC, currently $0.021 per kilowatt-hour (kWh), for electricity produced during the 1st 10 years of operation. The new expiration date for the PTC was extended...
to December 31, 2012. If the illustrative $100 million project had turbines with the combined, “rated” capacity of 50 megawatts (MW) and they operated at a 30% capacity factor, the turbines would produce 131,400,000 kWh of electricity each year, the owners would receive a tax credit (a direct deduction form tax liability) of $2,759,400 per year during the first 10 years of operation, thus reducing federal income tax liability by $27,594,000 over 10 years.

5. Investment Tax Credit (ITC). “Stimulus” legislation enacted during 2008 and 2009 permits “wind farm” owners to choose an investment tax credit (i.e., a direct deduction from taxes otherwise due) equal to 30% of capital costs in lieu of the Production Tax Credit. If the “wind farm” owner does not have sufficient tax liability to use all of the ITC deduction, unused amounts can be carried forward and deducted in future years. This tax break is available for projects placed in service during 2009 and 2010 or where construction has started by 2010 and placed in service before the end of 2012. The newly authorized ITC has substantial benefits for “wind farm” owners compared to the PTC because (i) the benefit is available immediately rather than over a 10-year period and (ii) the benefit is based on capital cost and, therefore, is available regardless of the amount of electricity produced by the “wind farm.”

6. Cash Grant in Lieu of ITC. The generous 2008-2009 “stimulus” legislation also made “wind farm” developers eligible for the ITC to elect to receive a cash grant of equal value from the US Treasury in lieu of the ITC. During September 2009, The US Departments of Treasury and Energy awarded grants for “wind farm” projects totaling about $900 million. $546 million or nearly 60% of the total was awarded to the Spain-based firm, Iberdrola. The Iberdrola CEO has indicated that he expects to win another $470 million in grants from Treasury and DOE during 2010. Creating jobs was, allegedly, a key reason for the $787 billion “stimulus” legislation but most of “wind farm” projects included in the $1 billion in grants awarded by Treasury and DOE on September 1 and September 22, 2009, were for (a) projects that were already completed, nearly completed or already fully committed to by the grant recipients, (b) were equipped with turbines manufactured primarily in other countries, and (c) were owned by foreign-based companies. Furthermore, “wind farms” result in very few new jobs, certainly fewer than would be created by similar investments in reliable generating units powered by traditional energy sources. (Clearly, any claim that the huge expenditure of tax dollars that were given to owners of “wind farms” would provide significant job and economic benefits in the US cannot be taken seriously.)

7. Loosened requirements for tax breaks and subsidies. The same stimulus legislation also relaxed a number of restrictions on that had applied to the tax breaks and subsidies. A report recently released by DOE’s Lawrence Berkeley National “Laboratory” (LBNL) – while objectionable in several respects – provides a useful summary of generous tax breaks and subsidies now available for “wind farms.”

8. US Department Agriculture Grants. While not targeting large commercial “wind farms,” a variety of renewable energy production incentives, grants, loans, and
low interest bond arrangements are available for certain wind energy projects. These are also summarized in the LBNL report cited above. Some of these arrangements are available for large wind turbine projects owned by Rural Electric cooperatives and public power organizations owned by state and local governments.

9. **DOE Loan Program.** A DOE loan program intended to encourage the commercialization of “innovative energy technologies” was first authorized by the Energy Policy Act of 2005 and then was substantially expanded by the American Recovery and Reinvestment Act of 2009. Billions in loans and loan guarantees are available for various renewable energy (including wind) and energy efficiency projects. One wind project (Nordic Windpower) has been approved via this program for a $16 million loan. Final regulations for this DOE program were issued on December 7, 2009.

10. **Additional US Department of Energy (DOE) Subsidies.** The DOE provides several additional subsidies to the wind industry, all financed with tax dollars, including:
   a. Some $60 to $100 million per year for “wind energy R&D” contracts and grants.
   b. Additional millions in taxpayer dollars for “studies,” “analyses,” “reports,” and other wind energy promotional information prepared by or for DOE’s Office of Energy Efficiency and Renewable Energy (DOE-EERE), DOE’s National Energy “Laboratories,” state energy offices, and other DOE contractors and grantees. While the National “laboratories” undoubtedly perform some objective work that is based on scientific methods and engineering principles, much of the information issued by these organizations that deals with wind energy is demonstrably biased, misleading, and even false. These “laboratory” activities are more akin to those carried out by trade associations that typically provide one-sided information (or propaganda) that is used to influence the public, media and government officials.
   c. More taxpayer dollars flowing though DOE and NREL to support various state government wind promotional activities and to state “wind working groups,” consisting of wind industry representatives and other wind energy advocates (but seldom, if ever, include representatives from citizen groups opposed to “wind farms”) that work in support of wind industry objectives.

11. **Mandated use of “renewable” energy by Federal Agencies.** The Energy Policy Act of 2005 requires the following amounts of total electricity consumed by the Federal Government to come from renewable energy:
   - No less than 3% in fiscal years 2007-2009
   - No less than 5% in fiscal years 2010-2012
   - No less than 7.5% in fiscal year 2013 and thereafter

   Presidential Executive Order 13423, issued in January 2007, requires that at least one-half of the required electricity from renewable energy come from “new
renewable sources.” In fact, much of the electricity from “renewable energy” purchased by federal agencies comes from wind turbines. Like mandated state “green energy” programs, this federal requirement in effect requires that federal agencies pay premium prices for part of the electricity they use, thus creating a special, high priced market that is available to “wind farms.” The higher-than-market premiums that must be paid for electricity from wind are another subsidy for the wind industry. The higher prices are paid from agency appropriations which are financed through tax dollars.

12. Public lands managed by the US Bureau of Land Management and US Forest Service. Both agencies have policies and regulations dealing with the construction of “wind farms” and related transmission facilities on public lands that they manage. More than 300 MW of wind turbine capacity is now located on BLM-managed lands. Typically, rents charged by BLM and USFS are lower than those charged for comparable private lands.

13. Tax breaks and subsidies for “wind farm” equipment manufacturers. One 2009 economic “stimulus” measure established a new $2.3 billion investment tax credit “to encourage the development of a U.S.-based renewable energy manufacturing sector. In any taxable year, the investment tax credit is equal to 30% of the qualified investment required for an advanced energy project that establishes, re-equips or expands a manufacturing facility that produces …” something considered by the US Treasury and Energy Departments as an energy efficiency, conservation, or renewable energy technology, including wind energy. The application process conducted during the fall of 2009 resulted in the selection of dozens of projects that apparently exhausted the $2.3 billion authorization. Projects selected for this new tax break included 33 projects involving wind turbines, bearings, towers, and blades totaling more than $250,000,000. Treasury and DOE have announced that no more applications are being accepted for this program. However, President’s FY 2011 budget requests an additional $5 billion for the program.

B. State tax breaks and subsidies for “wind farm” owners. Many state governments have adopted generous tax breaks and subsidies that benefit “wind farm” developers and owners – adding more to the costs that are shifted from developers and owners to ordinary taxpayers and electric customers and “hidden” in their tax bills and monthly electric bills. The specific tax breaks and subsidies vary widely among states. Information for each state can be found at a taxpayer financed web site, Database of State Incentives for Renewables & Efficiency, www.dsireusa.org. Among the scores of “incentives” for industrial scale “wind farms” provided by at least one and often more states are:

1. State production tax credits (e.g., Iowa)
2. Exemptions from all or part of property taxes (e.g., Iowa, West Virginia, New York)
3. Artificially low assessments on wind turbines (e.g., Illinois)
4. Exemptions from sales tax on “wind farm” equipment and materials (e.g., Minnesota)
5. Low-cost loans (e.g., industrial development bonds)
6. Renewable Portfolio Standards (RPS) that typically prescribed some percentage of a distribution utility’s sales must consist of electricity produced from wind or some other “renewable” energy source (about 20 states).

7. Purchases of, or markets for, “green energy” certificates earned by producers of electricity from wind (e.g., Massachusetts).

8. “Green energy” programs by electric distribution companies that offer electricity produced from wind at a premium price – either required or encouraged by state PUC or legislature (many states).

9. Payments for “green energy attributes” using revenue collected via a “systems benefit charge” (effectively, a tax) added to electric bills (e.g., New York).

10. Higher allowed earnings for electric utility investments in renewable energy facilities (e.g., Virginia)

At least four of the above state requirements (6, 7, 8 and 9) have the effect of creating a special market where owners of “wind farms” and other renewable energy facilities can sell their electricity at above market prices. Of course, the electricity actually used by customers paying extra for “green” electricity is highly unlikely to be produced by a “renewable” energy facility. The owners can receive the higher, above market prices for the electricity they produce even if their facilities are not producing at the time the electricity is being used. Utilities’ “green energy” programs are seldom self supporting. That is, the amounts collected in premiums from customers who agree to pay extra are not adequate to cover (i) the higher costs of the “green energy” and (ii) the utility’s cost of administering the “green” program. Costs not recovered from premium payments are merely passed along to all of the utility’s customers.

C. Local government and economic development agency tax breaks and subsidies. Some local government and economic development officials believe that construction of “wind farms” in their areas will provide new jobs and other economic benefits. Actual benefits tend to be much less than assumed by “wind farm” developers and local officials. Further, the cost of any such benefits is, in one way or another, shifted to ordinary taxpayers and/or electric customers. There is no readily available, comprehensive source of information on locally provided tax breaks and subsidies. However, examples include:

1. Low-cost loans or bond financing. County or regional “economic development authorities” may have authority to offer low cost or interest free loans or bond financing which significantly reduce a “wind farm” owner’s capital cost.

2. Acceptance of payments in lieu of taxes, or PILOTs. For example, local government and school board officials in some towns in New York accept PILOTs from “wind farm” owners and give up their statutory authority to override a state-authorized exemption from property taxes. PILOTs are attractive to local officials because they tend to be “front-end loaded”; that is, they provide significant early benefits that can be presented to local voters as an opportunity for near term reductions in home-owners’ property taxes, new fire trucks or other equipment, restoration of historic buildings, or other measures that can’t be accommodated in local budgets without raising taxes. For local politicians and
citizens, these may appear to be generous gifts! PILOTs are attractive to “wind farm” owners because their cost over the assumed life of the “wind farm” are much less than paying property taxes and the “front-end” benefits are often helpful in gaining support for projects from current town officials and, perhaps, citizens who do not take into account the lower long term benefits or impacts.


**Lucrative tax breaks for “wind energy” permit BP and Shell to avoid paying hundreds of millions in federal and state taxes.**

BP and Shell are able to take advantage of at least five very generous federal and state tax breaks and subsidies for wind energy and be able to use those tax breaks to avoid paying federal and state corporate income tax on hundreds of millions in profit, including profit from their oil. Detailed information on the two companies’ financial situation would be needed to make precise estimates of the amount of income that each company will be able to shelter from federal and state corporate income taxes. However, rough estimates of taxes that the companies would be able to avoid can be made by making a few conservative assumptions. To simplify the calculations, the numbers below ignore BP and Shell’s existing projects and instead merely assume that (a) each company will in 2009 bring into operation “wind farms” with a capacity of 1,000 MW, (b) that the capital cost of the projects will be $2,000 per kilowatt (kW) of capacity, (c) that they will operate with an annual capacity factor [vi] of 30%, and (d) that Congress will accede to wind industry lobbyists and extend the existing renewable energy “Production Tax Credit” beyond its current December 31, 2008, expiration date (at an estimated cost of several billion dollars). If either company builds twice as much wind capacity (i.e., 2,000 MW), the tax breaks and subsidies would be twice those estimated below.

1. **Federal Production Tax Credit for electricity from wind (PTC).** First, BP and Shell would each receive the federal wind PTC, currently $0.02 per kilowatt-hour (kWh) for electricity produced during the 1st 10 years of operation. Congress is expected to extend this tax shelter beyond its current December 31, 2008, expiration date. By itself, this tax credit would reduce each company’s federal income tax liability over 10 years by $526,100,000, [vii] effectively shifting that amount of tax burden to taxpayers who don’t enjoy such tax shelters.

2. **Accelerated Depreciation.** Second, each oil company’s (i.e., BP and Shell) $2 billion [viii] in “wind farm” capital investments would qualify for the exceedingly generous 5-year, double declining balance accelerated depreciation for federal income tax purposes. [ix] Assuming that $2 billion is the full cost of each company’s “wind farms” in 2009, the following amounts could be deducted from each company’s otherwise taxable income and further reduce each company’s federal income tax liability; specifically:

<table>
<thead>
<tr>
<th>Deduction from taxable income</th>
<th>Further reduction in federal income tax liability (in addition to PTC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Year % of Capital investment Amount</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1st  20%  $400,000,000  $140,000,000
2nd  32%  $640,000,000  $224,000,000
3rd  19.2%  $384,000,000  $134,400,000
4th  11.52%  $230,400,000  $80,640,000
5th  11.52%  $230,400,000  $80,640,000
6th  5.76%  $115,200,000  $40,320,000
Totals  100%  $2,000,000,000  $700,000,000

Note that these deductions from otherwise taxable income and from federal income tax liability could be taken regardless of whether the “wind farm” investment is financed with debt or equity. [x] So, if each company were to put up only $1 billion of equity and finance the other $1 billion with borrowing (to hold down the cost of their capital investment), the deductions from income and reduced tax liability would still be based on the full $2 billion shown in the table above. Note also that, in addition to the further reduction in tax liability, this generous accelerated depreciation deduction for federal income tax purposes has two other huge benefits; specifically:

a. Prompt recovery of each company’s equity investment. The example above, conservatively assumes that the entire “wind farm” capital investment would be equity, rather than debt. If the equity investment was only half the capital cost and the remainder borrowed, (i.e., $1 billion), the table above shows that BP and Shell would each recover through depreciation deductions all of its equity investment in less than 2 years and in just over 1 year if the project(s) begin operation late in the first tax year. With no remaining equity investment, each company’s return on equity would be infinite.

b. A large interest free loan. The depreciation deduction continues even though all equity has been recovered. Thus, each company would, in effect, be receiving an interest free loan, courtesy of US taxpayers for an amount equal to the debt financing. In the unlike case that either company was unable to use all the tax deductions in 2009, part of the allowable deduction could be deferred or, alternatively, schemes are available to “sell” tax credits to other firms that have tax liabilities that they wish to avoid.

3. Avoiding State Corporate Taxes. Tax breaks for “wind farms” are not limited to those provided by the federal government. Most states also allow a corporation to take advantage of 5-year double declining balance accelerated depreciation deductions from otherwise taxable corporate income. Therefore, each company could be able to take deductions like those shown above when calculating their state corporate tax liability. Assuming a 6.5% state corporate tax rate, each company’s $2 billion “wind farm” capital investment would permit the following deductions from state level taxable income and reductions in each oil company’s tax liability:

<table>
<thead>
<tr>
<th>Tax Year</th>
<th>% of Capital investment</th>
<th>Amount</th>
<th>Reduction in State Corporate tax liability (assuming 6.5% rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>20%</td>
<td>$400,000,000</td>
<td>$26,000,000</td>
</tr>
<tr>
<td>2nd</td>
<td>32%</td>
<td>$640,000,000</td>
<td>$41,600,000</td>
</tr>
</tbody>
</table>
3rd 19.2%  $384,000,000  $24,960,000
4th 11.52%  $230,400,000  $14,976,000
5th 11.52%  $230,400,000  $14,976,000
6th 5.76%  $115,200,000  $7,488,000
Totals 100%  $2,000,000,000  $130,000,000

4. State Production Tax Credits or Subsidies for “Wind Farm” Owners. Several states have adopted their own “production tax credits,” and other states provide a direct subsidy. If BP or Shell were to build their “wind farms” in states with such subsidies they would enjoy still another tax break or income stream. State programs vary widely. If the tax break or subsidy were worth $15 per megawatt-hour (MWh) of electricity produced — which is equal to $0.015 cents per kWh, the tax break or subsidy would be $39,420,000 per year and $394,420,000 over 10 years. [xi]

5. State Renewable Portfolio Standard (RPS). In addition to the above tax breaks and subsidies, several states have virtually assured big profits for “wind farm” owners by requiring that a growing percentage of the electricity sold in their state must come from “renewable” energy, which, in most states is now expected to be mostly from wind. By dictating that a large portion of electricity must be produced from “renewable” energy, owners of facilities that produce electricity from wind and other “renewables” are likely to be able to demand higher prices for their electricity than would be paid under normal market conditions. The higher costs of electricity from renewables that electric distribution companies are forced to pay are passed along to electric customers in their monthly bills.

6. Other Tax Breaks and Subsidies. “Wind Farms” enjoy a variety of other federal and state financial, market and regulatory subsidies. For example, in some states, “wind farms” are eligible for exemption from all or a part of their property taxes or sales taxes on wind farm equipment. In some regions “wind farm” owners receive a variety of regulatory subsidies; e.g., being awarded an artificially high “capacity credit” by an Independent System Operator (ISO), or being excused from penalties for not delivering electricity to an electric grid at the time called for in contracts. In some states (e.g., Texas), state utility commissions are counting on the construction of transmission lines to serve “wind farms” that will cost billions of dollars, with the costs passed along to electric customers in their monthly bills.

Conclusions

Ordinary taxpayers are justifiably repulsed by having to bear the tax burden escaped by corporations that can take advantage of the extremely generous tax breaks and subsidies provided to them by the Congress and state legislatures. However, it is certainly not illegal for corporations to take advantage of those breaks. The blame for bad government policies — including the huge tax breaks and subsidies described in this paper — rests primarily with our elected representatives who seem unable to understand the full implications of the measures they adopt and/or unable to resist demands from lobbyists. The huge tax breaks and subsidies for wind energy are especially repulsive to many citizens, electric customers and taxpayers because
it has become increasingly clear during the past 3 years that the wind industry and other wind advocates have, for more than a decade, greatly overstated environmental, energy and economic benefits of wind energy and greatly understated or ignored its adverse environmental, ecological, economic, scenic, and property value impacts. In fact, the huge machines (many 400 ft or 40 stories) produce very little electricity. That electricity is intermittent, volatile, and unreliable. Further, because their output is dependent on wind speed, wind turbines cannot be counted on to be available at the time of peak electricity demand. This means that areas experiencing increases in peak demand or needing to replace older generators will have to add reliable (“dispatchable”) generating capacity whether or not “wind farms” are built. Electric customers could be paying twice: once for wind turbines and again for reliable generating units.

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