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Two Oil Companies use "wind farm" tax breaks to shelter their profits from federal and state income tax

Last April, Senator Domenici (R-NM) demanded that the "Big 5" oil companies provide him with "detailed explanations of how they use their profits to re-invest in energy production," and "the extent of their investments in clean energy sources such as wind, solar, biomass and geothermal." [i]

Apparently the Senator did not know that the two foreign based of his target oil companies – UK-based BP and Netherlands-based Shell – are investing heavily in "wind energy" in the US, but perhaps not for the reasons the Senator had in mind.

Undoubtedly, Shell and BP hope their investments in "wind energy" will enhance their "green" image. In fact, these investments are also permitting the two companies to avoid tens or hundreds of millions in federal and state income tax on their profits, including oil profits.

Why are there any tax breaks and subsidies for wind energy?

Wind industry lobbyists have been extraordinarily successful in securing very generous federal and state government tax breaks and subsidies for wind energy. The cost of these tax breaks and subsidies are, of course, borne by ordinary taxpayers and electric customers.

These tax breaks and subsidies were adopted initially based on the rationale that newly emerging energy technologies deserved "incentives" to help them compete economically with established technologies that can produce electricity at less cost. However, tax breaks and subsidies, once started, have long lives, in part because the money they churn out can be used by the recipients to finance lobbyists and make generous campaign contributions to members of Congress and state legislatures.

Even now, the wind industry is clamoring for an extension beyond 2008 of the lucrative "Production Tax Credit" (PTC) that was first enacted in 1992 during the Administration of George H. W. Bush. (The wind PTC idea can be traced to Ken Lay of Enron fame.[ii]) The US EIA recently estimated that in 2007 alone the wind PTC alone permitted "wind farm" owners to avoid nearly $700 million in federal taxes, thus shifting that tax burden to ordinary taxpayers who can't escape *their* tax liabilities.

A flourishing wind energy industry is now in place and the costs of competing energy sources have increased dramatically but industry lobbyists continue to press for an extension in the wind PTC. Their accomplices in Congress will probably comply now that it has returned from its "recess."

How can BP and Shell use "wind farms" to shelter oil profits from income taxes?

Senator Domenici's April 2008 letter suggests that Congress may not understand how wind energy tax breaks permit a few large organizations to escape hundreds of millions in tax liability – and shift that tax burden to others. Tax breaks for "wind farms" apparently have helped at least one large corporation avoid paying any federal income tax for at least two years on over two billion dollars in profit.[iii]

This brief paper:

- Summarizes BP and Shell's publicly disclosed "wind farm" investments and plans.
- Describes several of the most lucrative tax breaks available to BP and Shell.

- Estimates the amount of tax liability BP and Shell can escape – and shift to ordinary taxpayers.

What are BP and Shell's "wind farm" investments and plans?

Both Shell and BP have "wind farms" in operation in the US and more under construction. Both have aggressive plans to add thousands of megawatts of wind generating capacity in the US in the years ahead.

1. Shell. According to information available from Shell's web site, the company owns 5 existing "wind farms" in the US totaling 392.42 megawatts (MW) of capacity and owns half of an additional 162 MW "wind farm" (in partnership with Spain-based Iberdrola) for a net ownership of 473.42 MW of existing capacity. In addition, Shell in October 2003 announced plans to build a 50-70 MW project (Bear River) in California.

   On July 27, 2007, Shell and Luminant (subsidiary of EFHoldings, formerly TXU) announced plans for a 3,000 MW "wind farm" in Texas.[iv] Further, a May 30, 2008, story in the Financial Times reported that Shell pulled out of a huge offshore wind project in the UK because of its high cost and quotes Shell official, Dick Williams, as saying that Shell plans to focus its wind energy activities on North America where it already has "…over a half a million acres optioned for wind projects."[v]

   Assuming that Shell will own half the planned 3,000 MW project in Texas, Shell already plans to own over 2,000 MW of wind generating capacity in the US -- with the possibility of much more.

2. BP. According to BP press releases posted on its web site, BP moved aggressively in 2006 with investments in wind energy companies in the US. In July 2006, BP entered into an agreement with Clipper Windpower that includes acquiring a 50% interest in Clipper's wind development portfolio and a long-term supply agreement to purchase 2,250 MW of Clipper turbines. In August 2006, BP acquired wind energy developer, Greenlight Energy, and in December 2006 acquired wind energy developer Orion Energy LLC.

   At present, BP apparently owns about 670 megawatts (MW) of wind generating capacity that is in operation or under construction, with projects located in Colorado, Texas, Indiana, Kansas, and California. A May 29, 2008, BP press release indicates the company's US wind portfolio "includes the opportunity to develop almost 100 projects and a potential total generating capacity of 15,000 MW. The company expects to have over 1,000 MW of capacity in operation by the end of 2008.

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:

	Deduction from taxable income		Further reduction in federal income
Tax Year	% of Capital investment	Amount	tax liability (in addition to PTC)
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:

	Deduction from taxable income		Reduction in State Corporate
Tax Year	% of Capital investment	Amount	tax liability (assuming 6.5% rate)
1st	20%	$400,000,000	$26,000,000
2nd	32%	$640,000,000	$41,600,000
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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[i] http://domenici.senate.gov/news/record.cfm?ref=1&id=297009

[ii] Page 1 of Ken Lay letter to Gov. G .W. Bush: http://www.thesmokinggun.com/archive/bushlayb11.html; Page 2 of Ken Lay letter to Gov. G.W. Bush: http://www.thesmokinggun.com/archive/bushlayb12.html

[iii] See, for example, "Big Money" Discovers the Huge Tax Breaks and Subsidies for "Wind Energy" While Taxpayers and Electric Customers Pick up the Tab, April 14, 2005, p. 2. http://www.aweo.org/Schleede.html

[iv] http://www.luminant.com/news/newsrel/detail.aspx?prid=1087

[v] http://www.ft.com/cms/s/0/2c2d99fa-2e7d-11dd-ab55-000077b07658.html

[vi] Annual "capacity factor" is a simple calculation of a percentage obtained by dividing the actual production of electricity (in kilowatt-hours – kWh) from a "wind farm" or other electric generating facility by 8760 hours (in a year) times the rated capacity of the facility (in kilowatts – kW).

[vii] Assuming a 30% capacity factor, 1,000 MW of wind capacity would produce about 2,628,000,000 kWh of electricity per year or 26,280,000,000 kWh during the first 10 years of operation. At $0.02 per kWh, the tax credit over 10 years would be $525,600,000.

[viii] 1,000 megawatts (MW) or 1,000,000 kilowatts (kW) of capacity at $2,000 per kW would cost $2 Billion.

[ix] Referred to by the IRS as Modified Accelerated Cost Recovery System (MACRS). See IRS Publication 946.

[x] Note also that the US Congress, in the Economic Stimulus Act of 2008, added a 50% 1st year "bonus" deduction from federal taxable income for 2008 investments. The effect of this additional "bonus" would permit "wind farm" owners to deduct 60% in the 1st , 16% in the 2nd, 9.6% in the 3rd, 5.76% in the 4th and 5th and 2.88% in the 6th tax years for federal corporate income tax purposes.

[xi] As in previous calculations, this assumes that the capacity of the wind farms" would be 1,000 MW and that they would produce electricity at an annual capacity factor of 30%; i.e., 2,628,000,000 kWh per year or 26,280,000,000 kWh over 10 years.