

Tax Incentives for Wind Power and the Sale of Landfill Gas

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- I. *Capture of Methane Landfill Gas*: Tax incentives at the federal and state levels improve the economics of facilities that capture and sell methane gas from landfills.
 - A. *The Environmental Context*: Methane, a greenhouse gas, is 21 times more powerful than carbon dioxide and represents about 9 percent of greenhouse gas emissions in the United States. Landfills are the largest source of anthropogenic methane in the United States, responsible for one-third of U.S. methane production.
 - B. *The Regulatory Context*: Pursuant to the federal Clean Air Act, the Environmental Protection Agency's "Landfill Rule," 40 CFR 60.750, requires landfills that generate certain levels of emissions to control their emissions. One method of control is the capture of methane gas through wells sunk into the landfill that collect the gas and convey it to facilities that generate heat or electricity. Electricity generated from landfill gas may also qualify under some states' renewable portfolio standards, which require that a specified percentage of electricity must be generated from renewable sources.
 - C. *The Federal Credit for Fuel from a Nonconventional Source*: Section 29 of the Internal Revenue Code provides an income tax credit for the production and sale of certain fuels from nonconventional sources, including gas produced from biomass. Methane gas generated by landfills qualifies as gas produced from biomass. *See, e.g.*, Private Letter Ruling 9831006.
 1. *Qualifying taxpayers*: Producers of qualified fuels (including methane gas from landfills) who sell the fuel to unrelated persons can qualify for the credit.

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2. *Amount of the income tax credit:* The credit is \$3.00 per barrel-of-oil equivalent sold to unrelated persons, adjusted for inflation (\$6.40 in 2003). See Notice 2004-13, 2004-18 I.R.B. 847 (inflation adjustments and reference price for 2003).
3. *Limitations:*
 - a. The amount of the credit phases down when the reference price of oil (\$27.56 in 2003) rises above \$23.50 cents per barrel adjusted for inflation (\$50.14 in 2003).
 - b. The amount of the credit is reduced if the project receives certain types of governmental subsidies.
4. *Expiration of the credit:* The credit for gas produced from biomass applies only to facilities placed in service before July 1, 1998 under a binding contract in effect before January 1, 1997. The gas must be sold before January 1, 2003, or if the facility was originally placed in service after December 31, 1992, the gas must be sold before January 1, 2008. Bills to extend the credit are pending in Congress.

D. *State tax incentives:* A number of states have tax incentives that encourage the installation of methane gas recapture facilities, such as property tax exemptions, production tax credits, investment tax credits and sales tax exemptions.

II. *Wind Power:* Tax incentives at the federal and state levels encourage the production of electricity from wind power.

A. *The Environmental Context:* The electric utility sector produces about one-third of U.S. carbon dioxide emissions, or about half a billion metric tons of carbon dioxide per year. The use of wind power avoided 2.3 million tons of carbon dioxide in 2001 as well as lower emissions of sulfur dioxide and nitrogen oxides.

B. *The Regulatory Context:* The federal Public Utilities Regulatory Policy Act of 1978 encouraged non-utilities to produce electricity from wind power, and the federal Energy Policy Act of 1992 further opened the wholesale electricity market to competition from non-utilities, creating additional opportunities for wind farms. A number of states also have enacted renewable portfolio standards requiring that a minimum percentage of electricity must come from renewable sources.

C. *Federal Production Tax Credit:* Section 45 of the Internal Revenue Code creates a significant financial incentive for the production of electricity from wind by providing an income tax credit for the sale of each kilowatt hour of electricity generated by wind power.

1. *Qualifying taxpayers:* Owners of wind facilities that produce electricity for sale to unrelated parties are eligible for the credit.
2. *Amount of the income tax credit:* The credit is 1.5 cents per kilowatt hour of electricity sold to unrelated parties, adjusted for inflation (currently 1.8 cents). *See* Notice 2004-19, 2004-17 I.R.B. 828 (inflation adjustments and reference price for 2004).
3. *Limitations:*
 - a. The amount of the credit is phased down as the reference price for electricity produced from wind (currently 3.24 cents) exceeds 8 cents per kilowatt hour, adjusted for inflation.
 - b. The amount of the credit is reduced if the wind facility receives certain types of governmental subsidies.
 - c. The credit applies to sales during the first 10 years after the facility has been placed in service.
4. *Expiration of the credit:* The credit applies only to electricity produced by facilities placed in service before January 1, 2004. Bills to extend the credit are pending in Congress.

D. *Federal Accelerated Depreciation:* Federal depreciation rules provide beneficial treatment for the capital investment in equipment necessary to build wind farms.

1. *Wind-specific depreciation:* Section 168(e)(3)(B) of the Internal Revenue Code allows the owners of wind equipment to depreciate the cost over five years.
2. *General provision also applicable to wind equipment:* Economic-stimulus provisions enacted in 2002 and 2003, not specific to wind equipment, provide a deduction of 30 percent of adjusted gross basis in the first year for property purchased after September 10, 2001 and before September 11, 2004 (Section 168(k)(1)), or a deduction of 50 percent for property acquired after May 5, 2003 and before January 1, 2005 (Section 168(k)(4)).

E. *State tax incentives:* A number of states have tax incentives that improve the economics of wind farms, such as sales tax exemptions, property tax benefits, investment tax credits and benefits in calculating the state franchise tax.