Wind Energy
Is Good for Pennsylvania’s Economy

By capturing one of Pennsylvania’s most bountiful natural resources – the wind – and turning it into clean electricity, the Commonwealth create new economic opportunities, create high quality jobs, tax payments to local governments, and lease payments to farmers. Moreover, shifting a significant portion of generation to wind energy can help reduce state’s dependence on strip mining and burning coal.

Rural areas in Pennsylvania are facing hard times. Commodity prices are at record lows, the rural population continues to decline, and small family farms are increasingly consolidating into large factory farms, resulting in less employment.

One answer to these problems is wind energy. Wind energy can boost the rural economy, diversify rural incomes and create affordable pollution-free power. Wind power is the fastest growing source of electricity in the world, with sales growth averaging 40% per year for the last five years. In 2000, turbine sales reached nearly $4 billion world wide, and industry forecasters expect total installed capacity to triple over the next five years. Thanks to major new wind developments Somerset, Fayette, and Lackawanna Counties, Pennsylvania is part of this clean energy revolution. With a sustained effort, Pennsylvania could be a leader in this dynamic global economy.

• A Steady, Supplementary Income for Farmers – Wind power means a direct income for farmers who lease their land for wind turbines. Struggling Pennsylvania farmers can earn $2,000-3,000 per turbine per year, while removing less than half an acre from agricultural production for each tower. Each 100 MW of wind capacity represents $260,000 in annual payments to landowners. Given current commodity prices, farmers could actually earn more from a few wind turbines than from dozens of acres of crops or hundreds of hogs.

• Rural Economic Development for Pennsylvania – Over the next two years, the American wind industry expects to install over $170 million worth of equipment in rural Pennsylvania. The major new wind farms will result in tax payments to counties and school districts of $1.2 million per year.

• Cleaner Air for Pennsylvania / Reducing Greenhouse Gases – Wind energy displaces harmful emissions from fossil fuels. Pennsylvania’s currently installed 10.6 megawatts of wind power reduce acid rain emissions (sulfur dioxide) by 220 tons per year, smog emissions (nitrogen oxides) by 70 tons per year, and greenhouse gas emissions (CO2) by 26,000 tons per year. These cuts in global warming emissions are equivalent to eliminating the pollution from 3,000 sport utility vehicles, or

“It is not a question of choosing between the environment or jobs. Wind farms are good for both of them. A field of dreams for me is a field of wind machines, and if we build them I believe jobs will come.”

— Janet Johnson, late Minnesota state senator
about 9,500 compact passenger cars. If wind power supplied 10% of Pennsylvania’s electricity needs by 2010, greenhouse gas emissions would be reduced by nearly 15 million tons per year.

- **A Value-added Product for Pennsylvania** – Wind energy is a value added product for Pennsylvania, just like ethanol. Blending 10% renewable power into Pennsylvania’s energy mix is just like blending 10% corn ethanol into gasoline to make gasohol. No modifications are needed to the utility’s “engine,” the air is cleaned, and economic development is boosted.

- **Jobs for Pennsylvania** – As Pennsylvania’s wind energy resources are developed, temporary construction jobs and permanent operation and maintenance jobs will be created. During the 5 months of construction of Green Mountain Energy’s Garrett wind farm, a dozen contractors and 10 local general laborers were hired to assist with construction. Each 100 MW of wind development represents 75 short-term and 45 long-term jobs. In addition, wind projects will support a whole range of new companies to service the wind industry.

Wind energy promises to be a large source of new manufacturing jobs in the 21st Century. Pennsylvania’s industrial areas are ideally suited for turbine manufacturing to supply the mid-Atlantic’s exploding wind industry. LM Glasfiber, a wind turbine blade manufacturing plant in Grand Forks, North Dakota – with 130 full time employees – is an example of the kind of business that could be attracted by Pennsylvania’s wind industry.

Harvesting Pennsylvania’s wind energy potential also means keeping more energy dollars in the local community, and capturing the “multiplier effect” of income. Local construction contracts generally comprise 20% of the cost of wind farms, so a 15 MW facility can generate about $3 million in business for local contractors.

A study done for the Iowa Energy Bureau found that if renewables supplied 10% of Iowa’s energy for transportation, electricity and heating energy, the state would enjoy a net gain of over about 940 jobs, an increase of over $300 million in disposable income, and substantially reduced air pollution. A recent report by PennFuture, *Tax Policies for Energy Security, Job Creation and Environmental Quality*, found that 1,000 MW of wind power would supply 2% of Pennsylvania’s electricity and create similar economic and environmental benefits. An aggressive campaign to reach 10% wind power in the state would multiply Pennsylvania’s benefits significantly.

### Cumulative Net Effects on Jobs, Landowner Payments, Taxes and Air Emissions of Supplying 10% of Pennsylvania’s Electricity with Wind by 2010

<table>
<thead>
<tr>
<th>Emissions Avoided (tons)</th>
<th>CO₂</th>
<th>NOx</th>
<th>SO₂</th>
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<tbody>
<tr>
<td>Short-term Construction Jobs</td>
<td>14.8 million</td>
<td>38,000</td>
<td>125,000</td>
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<tr>
<td>Permanent O&amp;M Jobs</td>
<td>$13 million</td>
<td>$35 million</td>
<td>$13 million</td>
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<tr>
<td>Payments to Landowners</td>
<td>County Tax Revenues</td>
<td></td>
<td></td>
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<tr>
<td>5,000 MW of wind</td>
<td>3,750</td>
<td>2,250</td>
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