

Tri-State Solar/Wind Energy

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West Virginia, Crawley Field.

- 5.2 – 5.5 MW DC
- Grid Connected
- 16.074 Acres
- Crawley, West Virginia





Demography of West Virginia

Demography	West Virginia	Share of U.S.
Population	1.9 million	0.6%
Civilian Labor Force	0.8 million	0.5%
Economy	West Virginia	U.S. Rank
Gross Domestic Product	\$ 75.3 billion	40
Gross Domestic Product for the Manufacturing Sector	\$ 7,447 million	38
Per Capita Personal Income	\$ 36,132	50
Vehicle Miles Traveled	19,232 million miles	38
Land in Farms	3.6 million acres	39

Energy Production and Capacity

Production	West Virginia	Share of U.S.
Total Energy	3,770 trillion Btu	4.6%
Crude Oil	668 thousand barrels	0.2%
Natural Gas - Marketed	1,040,250 million cu ft	3.8%
Coal	112,786 thousand short tons	11.5%
Capacity	West Virginia	Share of U.S.
Crude Oil Refinery Capacity (as of Jan. 1)	22,300 barrels/calendar day	0.1%
Electric Power Industry Net Summer Capacity	15,105 MW	1.4%
Net Electricity Generation	West Virginia	Share of U.S.
Total Net Electricity Generation	7,180 thousand MWh	2.0%

Net Electricity Production.

Net Electricity Generation (share of total)	West Virginia	U.S. Average
Petroleum-Fired	0.1 %	0.4 %
Natural Gas-Fired	0.3 %	31.1 %
Coal-Fired	95.3 %	32.2 %
Nuclear	0 %	20.5 %
Hydroelectric	1.9 %	7.2 %
Other Renewables	2.3 %	7.6 %

Energy Summary

Summary	West Virginia	U.S. Rank
Total Consumption	738 trillion Btu	36
Total Consumption per Capita	398 million Btu	14
Total Expenditures	\$ 8,886 million	38
Total Expenditures per Capita	\$ 4,794	19

Energy Summary by End User

by End-Use Sector	West Virginia	Share of U.S.
Consumption		
» Residential	174 trillion Btu	0.8%
» Commercial	112 trillion Btu	0.6%
» Industrial	281 trillion Btu	0.9%
» Transportation	170 trillion Btu	0.6%
Expenditures		
» Residential	\$ 1,656 million	0.7%
» Commercial	\$ 936 million	0.5%
» Industrial	\$ 2,132 million	0.9%
» Transportation	\$ 4,161 million	0.6%

Energy Summary by End User

by Source	West Virginia	Share of U.S.
Consumption		
» Petroleum	35.8 million barrels	0.5%
» Natural Gas	150.7 billion cu ft	0.6%
» Coal	33.6 million short tons	3.7%

Expenditures and Consumption

Expenditures

» Petroleum	\$ 5,363 million	0.6%
» Natural Gas	\$ 678 million	0.4%
» Coal	\$ 2,031 million	4.5%

Consumption for Electricity Generation	West Virginia	Share of U.S.
Petroleum	17 thousand barrels	0.7%
Natural Gas	216 million cu ft	*
Coal	2,797 thousand short tons	4.5%

Energy source and use for Residential homes

Energy Source Used for Home Heating (share of households)	West Virginia	U.S. Average
Natural Gas	40.6 %	48.3 %
Fuel Oil	2.8 %	5.5 %
Electricity	44.2 %	37.4 %
Liquefied Petroleum Gases	4.2 %	4.8 %


Alternative Fuels

Alternative Fuels	West Virginia	Share of U.S.
Alternative Fueled Vehicles in Use	2,953 vehicles	0.2%
Ethanol Plant Operating Capacity	0 million gal/year	0.0%
Ethanol Consumption	1,823 thousand barrels	0.6%
Total Emissions	West Virginia	Share of U.S.
Carbon Dioxide	93.0 million metric tons	1.8%
Electric Power Industry Emissions	West Virginia	Share of U.S.
Carbon Dioxide	73,606 thousand metric tons	3.4%
Sulfur Dioxide	93 thousand metric tons	2.7%
Nitrogen Oxide	66 thousand metric tons	3.0%

Tri-State Solar/Wind Energy's Solar contribution



System output, per year...



<u>Year</u>	<u>Low Typical</u>	<u>Typical</u>	<u>High Typical</u>
1	4,902,668 kWh	6,128,335 kWh	7,354,002 kWh
2	4,865,898 kWh	6,082,372 kWh	7,298,847 kWh
3	4,829,128 kWh	6,036,410 kWh	7,243,692 kWh
4	4,792,358 kWh	5,990,447 kWh	7,188,537 kWh
5	4,755,588 kWh	5,944,485 kWh	7,133,382 kWh
6	4,718,818 kWh	5,898,522 kWh	7,078,227 kWh
7	4,682,048 kWh	5,852,560 kWh	7,023,072 kWh
8	4,645,278 kWh	5,806,597 kWh	6,967,917 kWh
9	4,608,508 kWh	5,760,635 kWh	6,912,762 kWh
10	4,571,738 kWh	5,714,672 kWh	6,857,607 kWh
11	4,534,968 kWh	5,668,710 kWh	6,802,452 kWh
12	4,498,198 kWh	5,622,747 kWh	6,747,297 kWh
13	4,461,428 kWh	5,576,785 kWh	6,692,142 kWh
14	4,424,658 kWh	5,530,822 kWh	6,636,987 kWh
15	4,387,888 kWh	5,484,860 kWh	6,581,832 kWh
16	4,351,118 kWh	5,438,897 kWh	6,526,677 kWh
17	4,314,348 kWh	5,392,935 kWh	6,471,522 kWh
18	4,277,578 kWh	5,346,972 kWh	6,416,367 kWh
19	4,240,808 kWh	5,301,010 kWh	6,361,212 kWh
20	4,204,038 kWh	5,255,047 kWh	6,306,057 kWh
21	4,167,268 kWh	5,209,085 kWh	6,250,902 kWh
22	4,130,498 kWh	5,163,122 kWh	6,195,747 kWh
23	4,093,728 kWh	5,117,160 kWh	6,140,592 kWh
24	4,056,958 kWh	5,071,197 kWh	6,085,437 kWh
25	4,020,188 kWh	5,025,235 kWh	6,030,282 kWh
Totals	111,535,697 kWh	139,419,621 kWh	167,303,546 kWh