

### Impact on Economic Growth

High energy prices, fewer jobs, and loss of industrial output are estimated to reduce West Virginia's gross state product (GSP) by between \$150 and \$259 million per year by 2020 and \$1.6 and \$2.2 billion by 2030 (Figure 4).

### Impact on Industry

West Virginia's major economic sectors will be affected by emission caps (Figure 5).<sup>4</sup> The current two largest sectors, chemical manufacturing and wood product manufacturing, show decreases in output of 6.9% to 7.5% and 7.5% to 8.2%, respectively in 2030. All manufacturing sectors will suffer output losses of between 4.5% and 5.2% by 2030, while output from energy intensive sectors falls between 9.6% and 10.5%. West Virginia's coal production would fall between 85.1% and 72.4% and electricity production by 18.6% to 15.1% (Figure 6). These continued losses will have a lasting effect on the economic base of West Virginia.

### Impact on Low Income Families<sup>5</sup>

The impacts of W/M will be felt especially by the poor, who spend a greater share of their income on energy and other goods than other income brackets. By 2030, higher energy prices mean that low income families in West Virginia (with average incomes of \$10,762) will spend between 19.3% and 20.2% of their income on energy under W/M compared to a projected 17.2% without W/M. Others on fixed incomes such as the elderly will also suffer disproportionately.

### Impact on State Budgets<sup>6</sup>

The increases in West Virginia's energy costs under W/M will impact expenditures throughout the state. Specifically, West Virginia's 1,005 schools and universities and 72 hospitals will likely experience a 20.3% to 30.6% increase in energy expenditures by 2030. For government entities, costs for services, including public transportation and vehicle fleets, such as school buses, will also rise under W/M.

Sector	Year	West Virginia		US	
		Low	High	Low	High
Electricity (Residential)	2020	6.8%	7.1%	5.0%	7.9%
	2025	7.5%	11.1%	4.9%	11.5%
	2030	35.9%	52.7%	31.4%	50.0%
Gasoline	2020	8.4%	11.1%	8.3%	11.1%
	2025	12.1%	16.0%	12.0%	16.0%
	2030	20.1%	26.3%	20.0%	26.1%
Natural Gas (Residential)	2020	-2.3%	0.6%	-3.3%	0.1%
	2025	4.2%	8.2%	4.8%	10.1%
	2030	48.7%	64.3%	56.3%	73.5%

Figure 4. Loss in Gross State Product For West Virginia

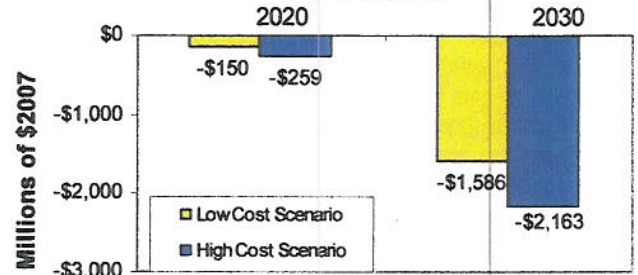


Figure 5. Percent Change in Output by Industry in 2030

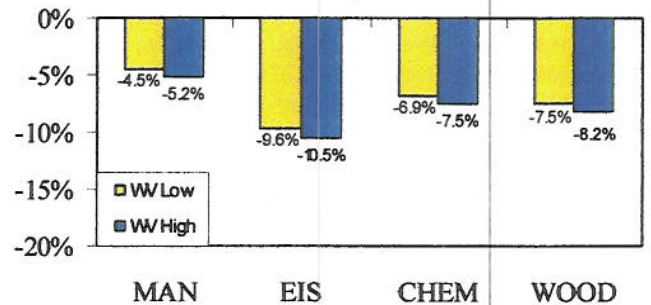
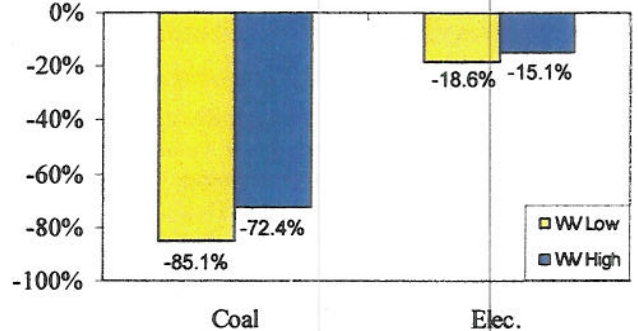


Figure 6. Percent Change in Production by Sector in 2030



<sup>2</sup>“Low” refers to the Low Cost Case, which assumes higher nuclear capacity, fewer constraints on new generating technologies, etc. “High” refers to the High Cost Case, which assumes low nuclear additions and constrained new generation technologies, etc. (See the full report for all assumptions).

<sup>3</sup>All dollar figures in this report are presented in constant 2007 dollars.

<sup>4</sup>MAN = manufacturing industries, EIS = energy intensive industries; CHEM = chemical manufacturing; WOOD = wood product manufacturing.

<sup>5</sup>These projections assume that the energy expenditures by income quintile in the state are the same as the average for the census division, since there is insufficient data to accurately calculate this quantity on the state level.

<sup>6</sup>These projections assume that the expenditures on schools and hospitals are the same as the average for the census region, since there is insufficient data to accurately calculate these quantities on the state level.