



# NERA Study

## Impacts of EPA Regulations (CSAPR, Utility MACT, CCR & 316(b))

*The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$800 billion in annual sales and with more than 750,000 employees nationwide. It is an organization created to promote the interests of manufacturing companies through research, advocacy, and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: plastics, cement, paper, food processing, brick, chemicals, fertilizer, insulation, steel, glass, industrial gases, pharmaceutical, aluminum and brewing.*

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In September 2011, the National Economic Research Associates (NERA) conducted a study on the following EPA regulations: Cross-State Air Pollution Rule (CSAPR), Utility MACT, Coal Combustion Residuals (CCR), and section 316(b) under the Clean Water Act.

CSAPR requires 27 states to reduce power plant emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) from power plants in Eastern states. Utility MACT sets emission rate standards for different types of coal- and oil-fired units based on maximum achievable control technology. CCR applies to the management of coal combustion residuals generated by steam electric power plants that are disposed of in landfills and surface impoundments. And, 316(b) proposes cooling water intake requirements for existing power plants and other industrial facilities.

These regulations will have an impact on both industry and the U.S. economy.

### COSTS OF REGULATIONS

- Annualized cost of \$21 billion
- Total cost of \$127 billion by 2020
- \$104 billion of total represents capital costs for emission controls and replacement capacity

### JOB LOSSES

- Employment losses total 2.15 million job-years by 2020. Counting job gains, net employment losses total 1.65 million job-years.

### NATURAL GAS PRICES & DEMAND

- 14 percent increase in natural gas prices in 2013
- \$8 billion per year in higher natural gas costs for residential, commercial and industrial consumers
- Higher gas prices total \$52 billion by 2020
- Natural gas demand increases by an average of 0.9 Tcf per year during 2012-2020. The total increase over the nine-year period is 8.12 Tcf.

### COAL DEMAND

- 39.1 GW of coal retires by 2015. This is in addition to 3.1 GW already projected by the model to retire. This accounts for about 12 percent of the 2010 U.S. coal-fired electricity generating capacity.
- 11 percent reduction in coal demand (108 million tons) in 2012

## ELECTRICITY PRICES

- Regions covering all or part of 30 states plus D.C. have peak-year electricity price increases exceeding 10 percent and as high as 19 percent

### AVERAGE ELECTRICITY PRICE IMPACTS, 2012-2020

REGIONS	2010\$/MWh	%
U.S. Average	+\$5.65	+6.5%
New England	+\$2.93	+2.2%
NYC	+\$6.97	+4.2%
NY Long Island	+\$13.00	+8.0%
NY Upstate	+\$6.39	+5.6%
Mid-Atlantic	+\$10.38	+10.7%
VA & Carolinas	+\$4.05	+5.1%
Southeast	+\$6.94	+8.2%
Florida	+\$4.10	+3.9%
Lower MI	+\$7.63	+9.6%
OH, IN, & WV	+\$7.01	+8.6%
KY & TN	+\$8.36	+13.5%
WI & Upper MI	+\$6.96	+9.2%
Upper Midwest	+\$5.39	+7.8%
South IL & East MO	+\$6.73	+11.1%
KS & West MO	+\$6.42	+8.0%
AR, LA, & West MS	+\$5.16	+7.2%
Oklahoma	+\$8.75	+12.6%
Texas	+\$5.34	+6.9%
CO & East WY	+\$1.40	+1.5%
Northwest	+\$0.04	+0.1%
AZ & NM	+\$1.40	+1.6%
California	+\$2.25	+1.6%

## GROSS DOMESTIC PRODUCT

- Cumulative GDP loss of \$190 billion by 2020

## DISPOSABLE PERSONAL INCOME

- U.S. disposable income would be reduced by \$34 billion per year, a total of \$222 billion by 2020
- Average U.S. family loses \$270 per year in disposable income, a total of \$1,750 by 2020

## IMPLICATIONS TO MANUFACTURING

Since 2000, 5.7 million (33%) manufacturing jobs have been lost. The cost effectiveness of regulations are not a luxury, they are an absolute necessity to job retention and creation. IECA member companies are not opposed to meeting the goals of the Clean Air Act. We are opposed to the unnecessarily costly approach proposed by the EPA that threatens competitiveness of manufacturing facilities through costly new capital and operating costs.

Source: NERA and ACCCE, economic and cost assumptions are taken directly from EPA and EIA data