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## **Why Do Industrial Consumers Oppose a Federal RES?**

- **EIA: Wind energy is 80% more expensive than natural gas-fired power!**
- **The RES raises manufacturing electricity costs and makes it more difficult to compete and threatens existing jobs.**

Renewable energy has an important role within the U.S. energy mix and should be included along with other sources in the state and regional generation resource plans. States are in the best place to balance their resource availability to meet their demand needs.

The fact is that renewable energy supply has increased significantly under the current system. From 2000 to 2009, non-hydro renewable energy increased by 56% while total electricity supply increased by only 4%.

The manufacturing sector companies require globally competitive energy prices which can be reliably dispatch 24 hours per day. The great majority of the renewable energy sources cannot meet these requirements.

According to the EIA (see chart below), wind energy costs average 80% higher when compared to natural gas-fired conventional combined cycle. Offshore wind is 130% more expensive. Neither number includes the additional cost of the 2.1 cents / kwh for the Production Tax Credit. Wind energy is by far the cheapest renewable energy among the choices of solar PV, solar thermal and geothermal. And, excessive use of biomass beyond waste material could increase the cost of raw materials significantly for several industries.

Renewable energy raises the cost of electricity and makes it even more difficult for manufacturers to compete and create jobs. Whatever jobs are created by the RES could easily be lost in greater numbers by the manufacturing sector. Surely the Congress recognizes that the majority of wind generating equipment is imported and will not create jobs at home.

The Congress should not pass any legislation that increases the cost of electricity to the manufacturing sector. The manufacturing sector has lost 6.0 million jobs since 2000.

For energy intensive manufacturing companies, even a relatively small increase in the price of electricity will determine whether they can compete with foreign imports.

For perspective, even what may seem like a relatively small increase in the price of electricity – can add up quickly. For example, a price increase of only one cent / kwh would impose a \$37.5 billion dollar increase on US consumers.

**Estimated Levelized Cost of New Generation Resources, 2016.**

Plant Type	Capacity Factor (%)	U.S. Average Levelized Costs (2008 \$/megawatthour) for Plants Entering Service in 2016				
		Levelized Capital Cost	Fixed O&M	Variable O&M (including fuel)	Transmission Investment	Total System Levelized Cost
Conventional Coal	85	69.2	3.8	23.9	3.6	100.4
Advanced Coal	85	81.2	5.3	20.4	3.6	110.5
Advanced Coal with CCS	85	92.6	6.3	26.4	3.9	129.3
Natural Gas-fired						
Conventional Combined Cycle	87	22.9	1.7	54.9	3.6	83.1
Advanced Combined Cycle	87	22.4	1.6	51.7	3.6	79.3
Advanced CC with CCS	87	43.8	2.7	63.0	3.8	113.3
Conventional Combustion Turbine	30	41.1	4.7	82.9	10.8	139.5
Advanced Combustion Turbine	30	38.5	4.1	70.0	10.8	123.5
Advanced Nuclear	90	94.9	11.7	9.4	3.0	119.0
Wind	34.4	130.5	10.4	0.0	8.4	149.3
Wind – Offshore	39.3	159.9	23.8	0.0	7.4	191.1
Solar PV	21.7	376.8	6.4	0.0	13.0	396.1
Solar Thermal	31.2	224.4	21.8	0.0	10.4	256.6
Geothermal	90	88.0	22.9	0.0	4.8	115.7
Biomass	83	73.3	9.1	24.9	3.8	111.0
Hydro	51.4	103.7	3.5	7.1	5.7	119.9

Source: Energy Information Administration, Annual Energy Outlook 2010, December 2009, DOE/EIA-0383(2009)

*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*