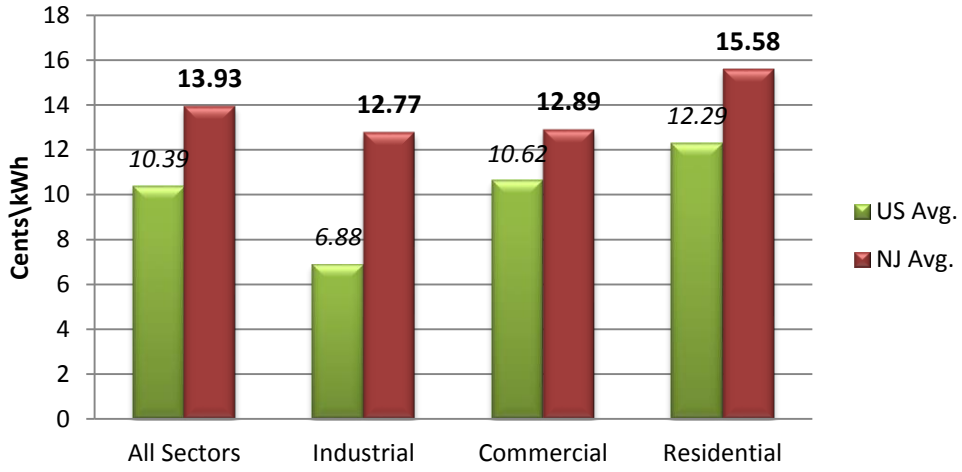
Energy in Perspective

In a Chemistry Council of New Jersey (CCNJ) membership survey conducted during the months of June and July of 2014, respondents for the seventh consecutive year unanimously ranked energy costs as one of the top issues of concern facing their companies in New Jersey. One can understand why, since New Jersey's industrial energy rates are among the highest in the nation. For some energy-intensive products, energy for both fuel and power needs and feedstocks account for up to 85% of total production costs. Because energy is a vital component of the industry's cost structure, higher energy prices can have a substantial impact on jobs and the bottom line.

New Jersey's Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, February 2015



	ALL SECTORS	INDUSTRIAL	COMMERCIAL	RESIDENTIAL
Rank Among States	11th	*7th*	11th	11th
NJ Price (cents per kilowatt-hour)	13.93	*12.77*	12.89	15.58
US Average (cents per kilowatt-hour)	10.39	*6.88*	10.62	12.29
% Above Nat'l Average	34%	*86%*	21%	27%

Source: http://www.eia.doe.gov/state/state_energy_profiles.cfm?sid=NJ (Monthly Data Collected April 2015)

Added Taxes and Fees to Already High Energy Costs

Societal Benefits Charge (SBC): The Societal Benefits Charge is unique to New Jersey, and can **add 3-5% to a ratepayer's energy bill**. SBC supports several policy initiatives—social programs; nuclear plant decommissioning; energy efficiency grants and loans, renewable power subsidies such as for wind, solar, and fuel cell generation; consumer education efforts; and assistance to low income consumers. Some CCNJ member companies are starting to see their SBC fees equal or exceed the amount they pay for distribution charges.

Sample of SBC Tax Paid by CCNJ Member Companies:

Small single site (2,000,000 kWh/year): **$17,300/year**	Large single site (40,000,000 kWh annually): **$340,000/year**
Small multiple sites (10,000,000 kWh/year): **$85,000/year**	Large multiple sites (80,000,000 kWh annually): **$680,000/year**
Medium (20,000,000 kWh/year): **$170,000/year**	

In the last 14 years more than $3 billion has been collected by the SBC. Currently, commercial and industrial ratepayers pay the majority of the SBC. Despite paying a larger portion of the SBC, until recently industrial ratepayers have been limited in what programs they could benefit from that are funded by the SBC. There is a Large Energy User Program, and a recently introduced SBC Credit program. The SBC Credit Program, however, was cut to a 50% credit and not the full 100% credit as originally proposed and thus has been underutilized by CCNJ members.

Energy in Perspective

Sales Tax: Energy consumers pay the 7% sales tax on their energy bills.

TEFA Tax (Transitional Energy Facilities Assessment Charge): 6% Tax on energy bills. Prior to deregulation, New Jersey ratepayers paid an "all-in" gross receipts tax of 13.5 percent. A primary goal of deregulation was to reduce New Jersey's excessive energy tax approximately in half. The gross receipts tax was immediately replaced with the sales tax (then 6 percent) and the "temporary" TEFA, set at 6 percent and scheduled to phase out by 2001. **Subsequently, State laws have been enacted extending the TEFA tax through 2014**. In 2009, TEFA tax collected about **$300 million. All the collections go to the state's general fund.**

According to EIA's 2014 Annual Energy Outlook, Photovoltaic Energy is about 96% more expensive than Conventional Natural Gas per MWh and Offshore Wind Energy is 208% more:

The Energy Information Administration (the independent statistical arm of the U.S. Department of Energy) publishes an annual forecast called the Annual Energy Outlook (AEO), which includes estimates of the capital cost of all generating technologies and their likely market penetration. AEO 2014 provides the expected average national levelized cost of electricity from various generating technologies in 2019 (see table below).

Unsubsidized Photovoltaic Energy is about 96% more expensive than Conventional Natural Gas per MWh

Generation Source	% of NJ Electricity (2014)	Total System Levelized Cost (2010 $/MWh)	Total System Levelized Cost (2012 $/MWh)
Natural Gas	**53%**		
• ***Conventional Combined Cycle***		**68.6**	**66.3**
• ***Advanced CC with CCS***		**92.8**	**91.3**
Nuclear	**40%**	112.7	96.1 (86.1)*
Coal Fired	**4%**	99.6	95.6
Other Renewables	**3%**		
• ***Solar PV***		**156.9**	**130 (118.6)***
• *Solar Thermal*		251.0	243.1 (223.6)*
• *Wind*		96.8	80.3
• *Wind – Offshore*		330.6	204.1
• *Geothermal*		99.6	47.9 (44.5)*
• *Biomass*		120.2	102.6
• *Hydro*		89.9	84.5

***Total System Levelized Cost with subsidy.**
Source: http://www.eia.gov/forecasts/aeo/electricity_generation.cfm

The Business of Chemistry, High Cost of Energy and Loss of Jobs

Since 2000, the chemistry industry has lost more than 48,200 high-paying jobs in New Jersey. Today the industry directly employs about 50,000 people in New Jersey. The chemical sector, which represents 20% of the manufacturing workforce in New Jersey, reduced its workforce by 3% in the last year alone.

This trend in NJ will continue and the state will lose high-paying jobs to states across the river and countries across the ocean if nothing is done to address New Jersey's high energy costs.

The high cost of energy affects everyone in many ways. As an industry that relies on oil and natural gas as both a fuel and a feedstock, the business of chemistry closely monitors its fuel use to ensure its operations are extremely energy and cost efficient. Despite this fact, the high cost of natural gas is causing ripples from the manufacturing sector through the economy in the form of reduced manufacturing, shortages of chemistry-dependent products, higher prices for those products, and job losses. **It's not just higher heating bills impacting Americans—it's also higher consumer prices and lost jobs.**

Energy in Perspective

The Business of Chemistry and Energy Policy

CCNJ and the industry believes that access to a reliable, affordable supply of energy is vital to chemical makers, the future of the American manufacturing base and the health of the U.S. economy as a whole.

CCNJ supports a balanced energy policy that includes efficiency, conservation, diversity (including renewables) and expanded domestic energy supply.

Natural Gas Development

The chemistry industry is experiencing a manufacturing renaissance due to the access to cheaper natural gas – making their products competitive in the international market. CCNJ fully supports the expansion New Jersey's natural gas pipeline system, which will help support the chemistry industry and the greater population.

The chemical industry's ability to create and retain jobs, both in New Jersey and across the United States, depends on a stable supply and the competitive pricing of natural gas and we fully support the safe and environmentally sound development of domestic natural gas resources.

Just as important as our electricity needs, natural gas is used as a raw material, a building block, and a feedstock to create products that make people's lives healthier, safer and more sustainable.

Manufacturing companies that utilize natural gas are leading economic recovery throughout the country. CCNJ cautions the state, however, as companies announce exciting new investments and expansions and power generators begin a large-scale shift to natural gas, New Jersey must be sure not to impose market-distorting incentives and to pursue policies that could threaten the reliability of these supplies.

The state must pursue policies that expand safe access to domestic energy resources and while at the same time encouraging fuel diversity and efficiency, the state cannot rely on just one energy generation source to keep the lights on in the state.

Help New Jersey

- Offer incentives for companies that have increased energy efficiency and have already acted to reduce greenhouse gas emissions.
- Stop the extension of the Transitional Energy Facilities Assessment tax.
- Support new nuclear energy production.
- Support domestic development of energy, like natural gas, and avoid undue restrictions on natural gas supplies from shale deposits.
- Government policies should not undermine the availability of domestic natural gas.
- Stop any attempts by the electric monopolies to get legislation allowing Decoupled Rates, or formula based rates, passed through the NJ Legislature.

Other Helpful Actions

- Support lifting the moratorium and expanding access to domestic energy supplies;
- Continue to encourage energy efficiency;
- Continue to Increase New Jersey's fuel diversity, including:
    - Supporting carbon capture and sequestration
    - Increase investment in renewable energy systems
    - Consider new nuclear energy production;
- Avoid climate policies that will continue driving utilities to switch to natural gas without enough supply to meet that demand.