Wholesale Electricity Policies and the Cost of Delivered Power

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July 2021

Electricity Consumers Resource Council (ELCON)

- Founded in 1976 as the national organization representing large industrial consumers of electricity
- Industrial consumers tend to have high load factors and require high reliability and a low per-kWh cost to remain competitive
- ELCON is active in several matters at FERC—including the ongoing "RTO Adder" proceeding—in addition to DOE and NERC
- We also engage on Capitol Hill, where the concept of an RTO mandate is being explored

Where ELCON stands on these and many other policies depends on their impacts on the cost of delivered power

Call to Action: Independent Investigation into RTO Impacts on the Cost of Delivered Power

After more than two decades of experience with wholesale competition, we are overdue to examine the impacts of wholesale electricity market policies on customer bills. Three trends make this effort more important than ever:

1. RTO expansion (both voluntary and mandatory) is under consideration at the state, regional, and federal level,
2. State and federal policies (as well as private sector demand from individuals and corporations) are driving changes in the resource mix that require large increases in spending on transmission infrastructure, and
3. Increased electrification of the economy will place pressure on the electricity system to satisfy new demand while keeping rates affordable.

Letter to Congress

On July 8, 2021, a coalition of 11 consumer group advocates and public policy organizations sent a letter to the Senate and House Energy Committees

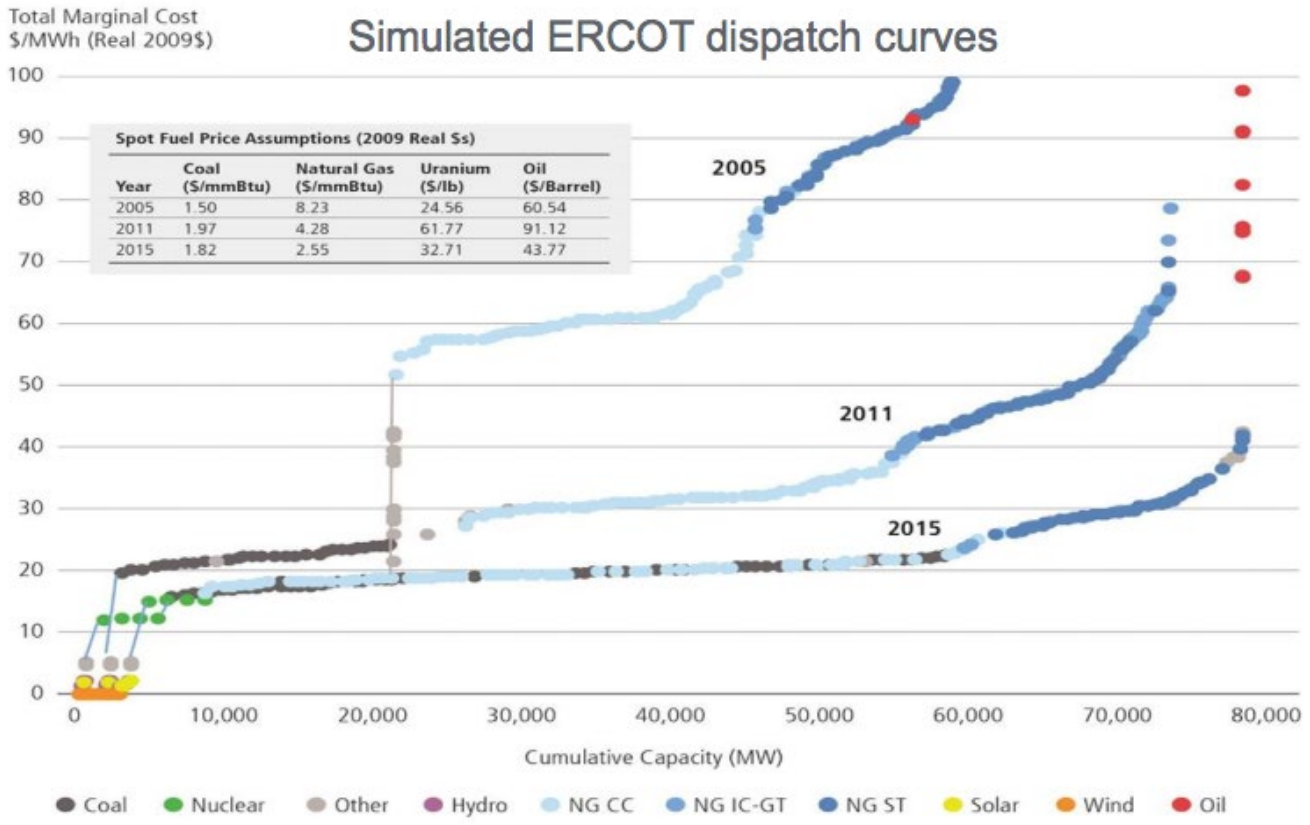
1. Direct GAO or other independent oversight organization to study cost of electricity in the US
2. Determine impacts of wholesale electricity market structures (RTOs) on retail rates
3. Explore impacts on reliability
4. Develop set of RTO expansion best practices (if resources allow)
5. Policy decisions need to rely on objective data and real-world impacts, not conjecture

Cost of Delivered Power: Statutory Framework

Federal Power Act
SEC. 202(a) **For the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy** and with regard to the proper utilization and conservation of natural resources, the Commission is empowered and directed to divide the country into regional districts for the voluntary interconnection and coordination of facilities…
SEC. 219(a) …the Commission shall establish, by rule, incentive based (including performance-based) rate treatments for the transmission of electric energy in interstate commerce by public utilities **for the purpose of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion**.
SEC. 223. JOINT BOARDS ON ECONOMIC DISPATCH. (c) POWERS.—The sole authority of each joint board convened under this section shall be to consider issues relevant to what constitutes 'security constrained economic dispatch' and **how such a mode of operating an electric energy system affects or enhances the reliability and affordability of service to customers** in the region concerned and to make recommendations to the Commission regarding such issues.

Cost of Delivered Power: Wholesale Market Experience

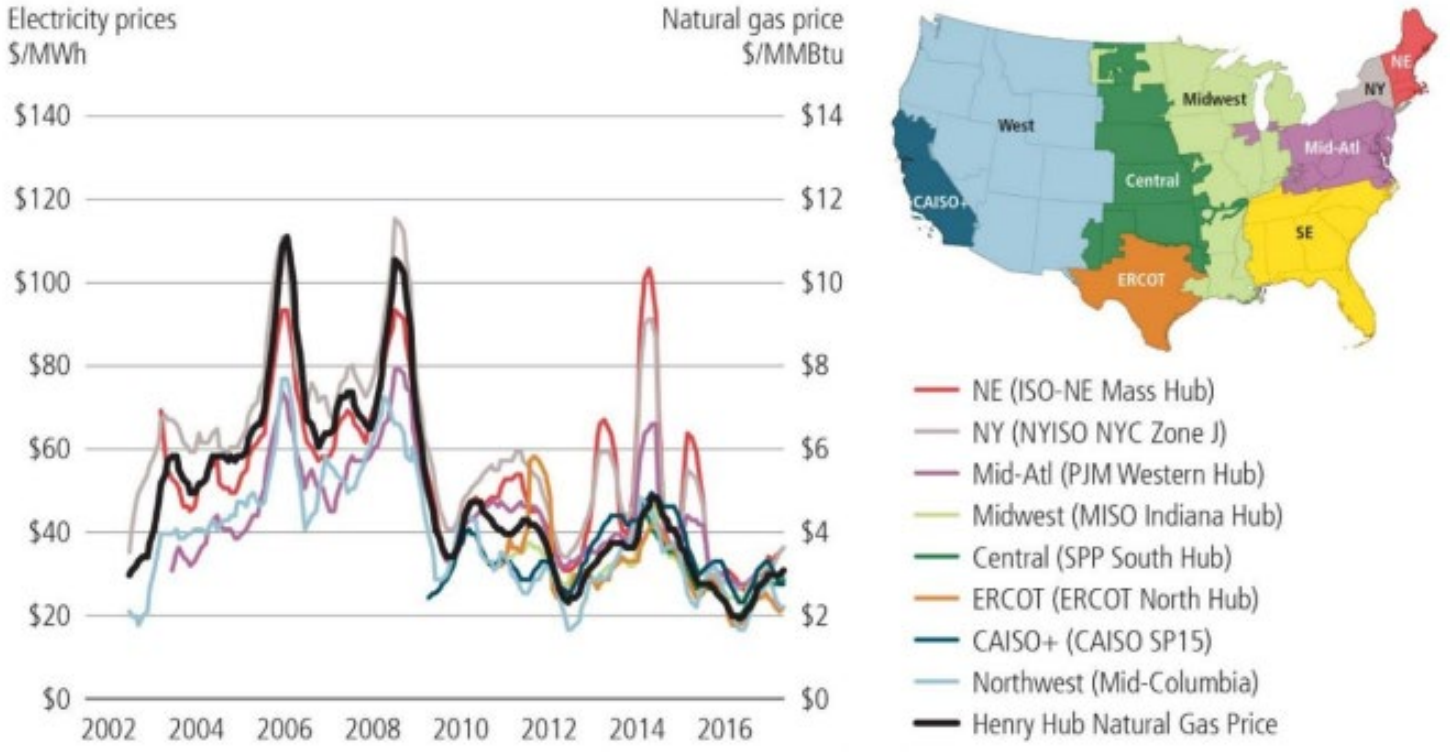
Impact of Low-Cost Resources



Source: Department of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability* (2017), p. 112

Cost of Delivered Power: Wholesale Market Experience

Impact of Low-Cost Resources



Source: Department of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability* (2017), p. 122

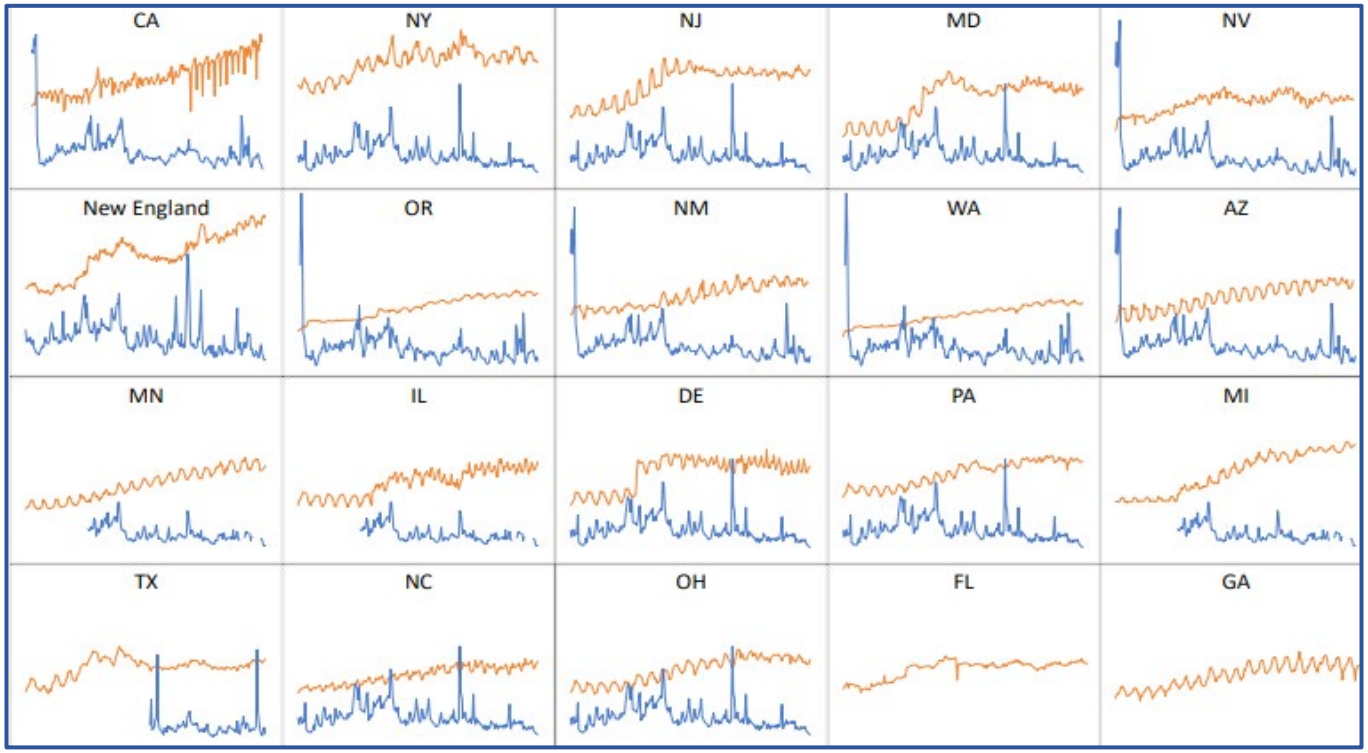
Cost of Delivered Power: Wholesale Market Experience

Impact of Market Structure

6. RTOs and ISOs, while imperfect, have been enormously successful in generating billions of dollars of annual benefits to consumers. MISO estimates that it produces between $3.1 and $3.9 billion of annual net economic benefits in the form of "improved reliability, compliance, more efficient use of existing assets and reduced need for additional assets."[14] PJM estimates its annual savings at between $3.2 and $4.0 billion in the form of more efficient regional transmission planning, lower aggregate generation reserve requirements, encouraging replacement of less-efficient generators, and reducing electricity production costs.[15] SPP estimates that savings from its markets and transmission planning services provide more than $2.2 billion of annual benefits.[16] According to National Grid, ISO-NE is expected to produce savings of more than $600 million per year.[17] Based on these four estimates, one could reasonably conclude that these RTOs/ISOs *alone* produce more than $10 billion of annual benefits for consumers.[18] Though the estimated $400 million annual cost of the Transmission Organization Incentive may appear large without any context,[19] it is quite literally pennies on the dollar when compared to the more than $10 billion of annual benefits to ratepayers generated from RTO/ISO membership. The majority has lost sight of the forest for the trees. I share the concern expressed by WIRES that any course-reversal "on maintaining the availability of the RTO/ISO Participation Incentive . . . would undermine the Commission's decades-long policy of supporting the development and expansion of RTOs/ISOs and the corresponding benefits to consumers they provide."[20]

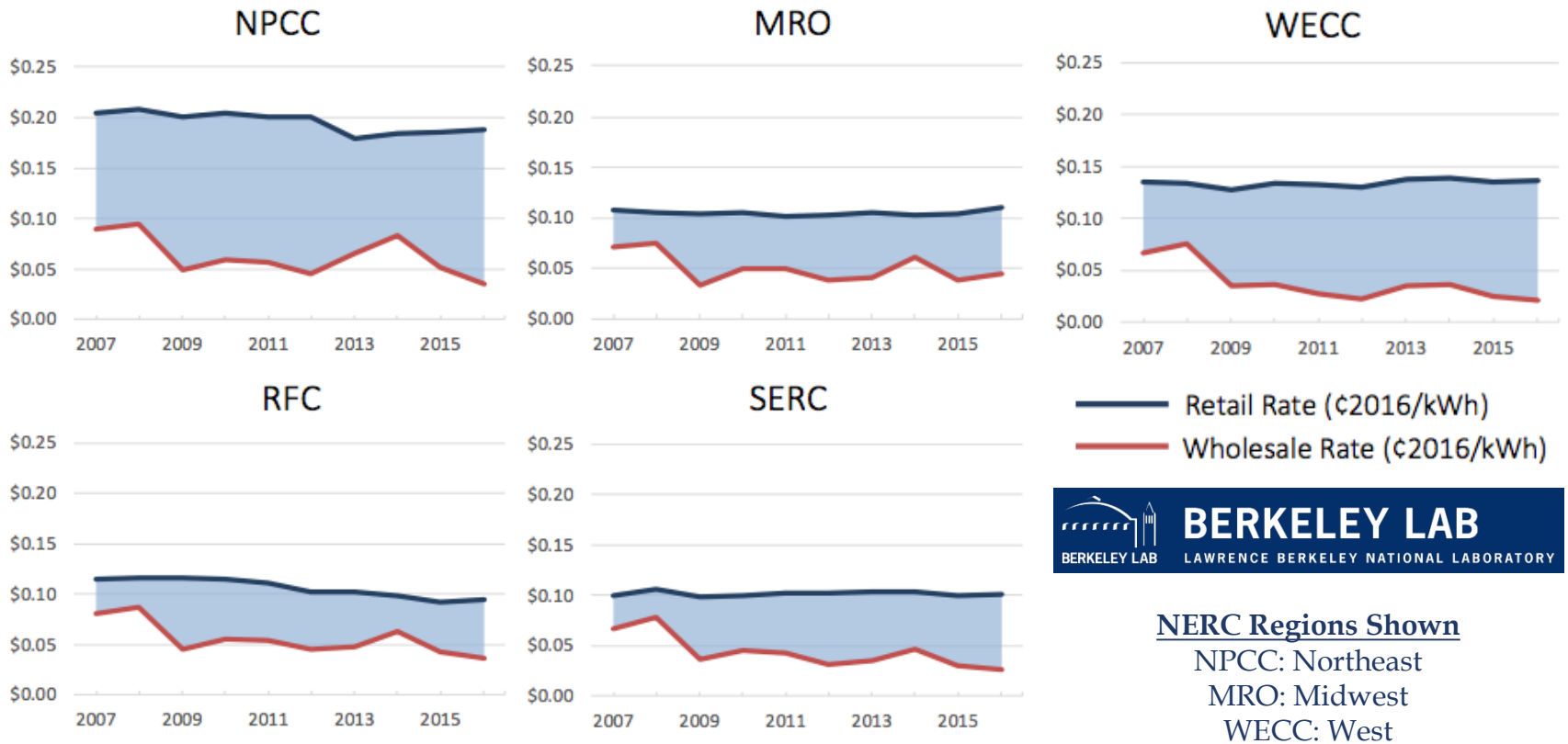
Source: *Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act*, Supplemental Notice of Proposed Rulemaking, 175 FERC ¶ 61,035 (2021), Commissioner Chatterjee Dissent at P 6.

Cost of Delivered Power: Wholesale vs. Retail Rates



X-axis: January 2001 through April 2020. Y-axis: Average retail prices of electricity (orange, max of 25 cents/kWh) and wholesale prices (blue, max of $300/MWh). Source: EIA as compiled in Chapter 2, *Monetizing Natural Gas in the "New Deal" Economy* (2021)

Cost of Delivered Power: Wholesale vs. Retail Rates



BERKELEY LAB
LAWRENCE BERKELEY NATIONAL LABORATORY

Source: Lawrence Berkeley National Laboratory, *Unpacking the Disconnect Between Wholesale and Retail Electric Rates* (2019)

NERC Regions Shown

NPCC: Northeast
MRO: Midwest
WECC: West
RFC: Mid-Atlantic (Reliability First)
SERC: Southeast

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Where Do Wholesale Savings Go?

- FERC Order 2000: "The Commission's goal is to promote efficiency in wholesale electricity markets and to **ensure that electricity consumers pay the lowest price possible for reliable service**." (December 1999)
- Government Accountability Office: "…there is no consensus about whether RTO markets provide benefits to consumers or **how they have influenced consumer electricity prices**." (*Electricity Restructuring: FERC Could Take Additional Steps to Analyze Regional Transmission Organizations' Benefits and Performance*, GAO, September 2008)
- FERC Commissioner Mark Christie: "We, as a federal regulator, we always have to be sensitive to ***'How is what we're going to do going to affect what the consumer is going to pay in his or her retail bill?'***" (*Taking Charge: FERC Commissioner Christie on his 'across the board' respect for state authority*, Utility Dive, April 2021)

Backup slides

Wholesale Competition: Legislative and Regulatory History

- EPAct 1992 "encouraged FERC to foster competition in the wholesale energy markets through open access to transmission facilities"
- Order 888 (1996) created the open access model for transmission, moving away from strict vertical integration of generation, transmission, and distribution
- Order 2000 (1999) "encouraged transmission utilities, including those that were not public utilities, to join a RTO"
- EPAct 2005 "reaffirmed a commitment to competition in wholesale power markets as national policy"
- Order 679 (2006) established incentives "to promote electric power reliability and lower costs for consumers, by reducing transmission congestion"
- Order 719 (2008) enacted regulations that "strengthen the operation and improve the competitiveness of organized wholesale electric markets

Quotes are from FERC's Electric Competition page: https://www.ferc.gov/industries-data/electric/power-sales-and-markets/electric-competition

Wholesale Competition: Today's Reforms

- Orders 745 (demand response), 841 (energy storage), and 2222 (DERs)
- Challenge to 745 denied by Supreme Court; challenge to 841 denied by Court of Appeals
- For energy storage and DERs, FERC jurisdiction now extends to resources located behind the customer meter
- March 2021 Notice of Inquiry to remove state opt-out provision for demand response, making legal footing consistent for demand response, energy storage, and DERs (comments due June 23, 2021)
- Potential legislative actions: RTO mandate, investment tax credit for new transmission

Electric Power and Political Priorities

DEMOCRATS

- Laser focus on climate change
- Accelerated transition to clean energy: many incentives for renewables and storage
- Infrastructure: much more high voltage transmission
- Equity
- Inclusiveness and public participation
- Cybersecurity

REPUBLICANS

- Lukewarm reception to climate issues
- Business-as-usual transition to clean energy: some incentives for nuclear energy, coal
- Infrastructure: more pipelines
- Competition
- International competitiveness
- Cybersecurity

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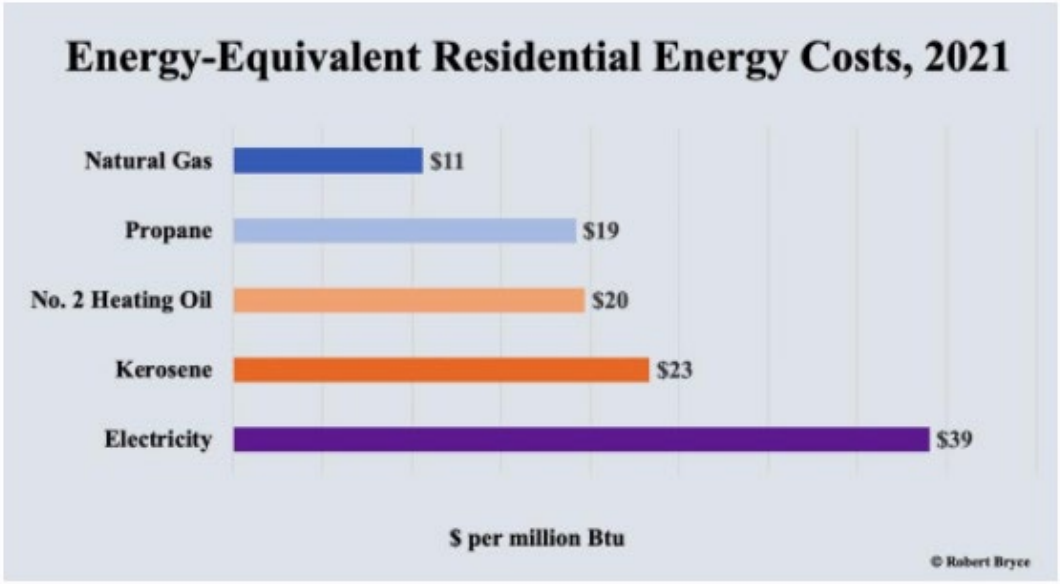
Cost of Delivered Power: Statements from FERC

Regulation	Language
Order 888 (page 1)	
Order 888 (page 3)	
Order 2000	
Order 679	
Order 719	
Order 745	
Order 2222	
RTO Adder NOI	

Cost of Electrification: BTU Cost of Electricity vs. Fuels



Pricing data published in the Federal Register on Wednesday show that on an energy-equivalent basis, electricity will cost about four times as much as natural gas this year. [-]

ROBERT BRYCE, FROM DOE DATA

"[T]he bigger, and more immediate issue is the regressive nature of forcing consumers to use electricity instead of energy sources like natural gas and propane…"

– Robert Bryce

Impacts of Competition on Consumers: Statements from the Courts

Statute	Language
FERC v. EPSA	"Transactions that occur on the wholesale market have natural consequences at the retail level. And so too, of necessity, will FERC's regulation of those wholesale matters.

Electricity Industry Developments and Reliability Impacts

NERC

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

- Many recent actions (by NERC and by DOE) have an uncertain impact on industrial facilities with or without behind-the-meter generation.
- NERC has identified the changing resource mix and the shift to distributed generation as a growing concern.
- Regarding recent concerns over cybersecurity and resource availability, industrial consumers are low risk and should be treated accordingly.

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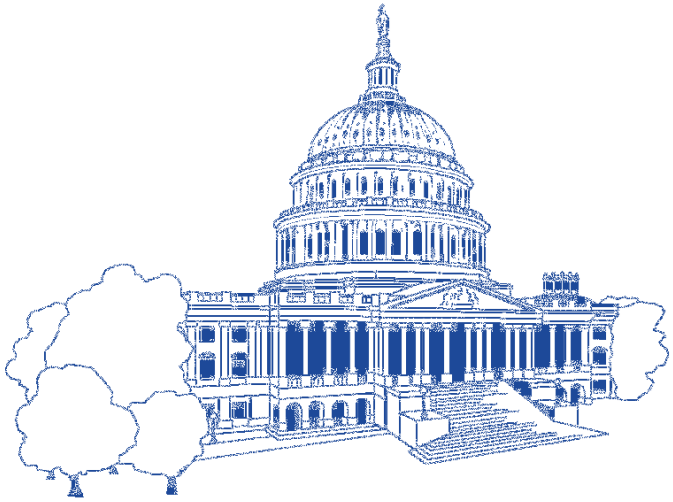
On the Hill



- Clean Electricity Standard
- RTO Mandate
- Tax credits for renewable generation (PTC and ITC) and for investment in new transmission (ITC)
- [other]

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