An Update on Federal Matters Affecting Large Energy Consumers

A presentation by:

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Washington, D.C.

At:

Multiple Intervenors 41st Annual Meeting
Turning Stone Resort, Verona, New York
October 9, 2013

What Is ELCON?

- The national association for large industrial users of electricity in the U.S.
  - Founded in 1976
  - Members from a wide range of industries from traditional manufacturing to high-tech
- The views today are mine alone

What I Plan To Do Today

- Discuss industrial electricity issues in:
  - Congress
  - FERC
  - NERC
  - Administration (primarily EPA)
- There are some significant potential pitfalls:
  - That could result in perhaps significant electricity cost increases
  - And the impacts may not be uniform for customers

Congressional Actions (or Inactions)

- Front burner issue for Congress, at least through October – economy and deficit reduction
  - Three prongs:
    - Continuing Resolution – and the partial government shutdown
    - Raising debt ceiling (mid-October?) – including spending vs. taxes
- Each is as much political battle as policy battle
  - Tend to sharpen partisan lines, partisan debate
  - Finding other issues where compromise is possible becomes more difficult
- The partial government shutdown is now in its 2nd week
  - Increasingly, it looks like the CR and the debt ceiling will be linked
  - The impacts are varied and growing

Congressional Actions (or Inactions)

- Republican rhetoric:
  - Regulations are bad
  - Government expenditures are bad
  - Government is bad
- Democratic dogma:
  - Carbon is bad
  - Energy producers (coal, oil, frackers) are bad
  - However, there is sunlight (and wind) at the end of the tunnel
- There appears to be little give or take on either side

So Where Are We?

- From today's Politico
  - A quote from Rep. Pete Sessions (R-TX), chairman of the Rules Committee (which means he's part of Boehner's inside team) as far as what's going to happen on CR and debt:

"If anybody tells you it's clear to anybody, let me know."

In Spite of This, What COULD Pass?

- Possibilities include:
  - Energy Efficiency
    - Final days of last Congress, Senate added EE provisions to a narrow House bill – included study of industrial efficiency by DOE – but do not expect much from that study
    - This year possibly another EE bill – MAY include: appliances, federal and commercial buildings, perhaps some minimal industrial provisions
  - **Why** could this pass?
    - Three major drivers:
    - Environmental community (Democratic support)
    - EE community (Alliance to Save Energy, American Council for Energy Efficient Economy – Democratic and Republican support)
    - EE Manufacturers – Johnson Control, Siemens, Ingersoll Rand, ABB, others (Republican support)

In Spite of This, What COULD Pass? (cont.)

- Possibilities include:
  - There may be some reductions in appropriations to DOE (and maybe even EPA)
    - Particularly relating to studies and incentives
    - There have been a lot of examples of wasted efforts in the past (remember Solyndra?)
      - But there are also some good examples
    - There is a lot of concern over the total amount of government spending
  - Broad tax reform
    - If not comprehensive tax reform – perhaps a stand-alone extension of the production tax credit

Congressional Inaction Does NOT Mean No Pressures on Costs

- There are many issues with very significant impacts on electricity costs – and thus on electricity consumers
- A few significant examples include:
  - At FERC:
    - The integration of “green energy” is of high priority
      - A new Chairman may not change this
    - However, renewables are quite expensive, often are not available when and where they are needed, and often are not located near load
      - And $15 B of new transmission investment is planned – who will pay?
  - NERC is taking actions that can add substantial costs due to increased registration and then compliance costs
  - And EPA is moving aggressively on many clean air and other issues
- I address each in turn

FERC Issues: Order 1000

- FERC initiated a major new rulemaking in 2010
  - That would require transmission providers to change procedures to better integrate variable energy resources (VER)
- ELCON concerns with the rule include:
  - Broad socialization of costs – that we assert is a movement away from cost causation
  - Broad discretion to planning authorities to include "public policy" considerations
  - Failure to allocate costs on a capacity basis
  - Rejection of participant funding
- ISOs & RTOs have made their compliance filings
  - FERC is just beginning to issue its Orders

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Transmission Issues: MISO MVP Tariff

- MISO proposed a tariff for “Multi Value Projects” (MVPs)
  - Costs for MVPs would be socialized throughout MISO
  - Costs would be allocated on a “usage” (or energy) basis
- FERC approved the tariff
  - Rehearing was sought by many parties – including ELCON
- FERC denied rehearing on October 21, 2011 stating:
  - The tariff is consistent with a Seventh Circuit decision requiring “roughly commensurate” cost allocation
  - There was no need to explicitly weigh projects costs against benefits
  - A usage rate is justified since MVP benefits will accrue during both peak and off peak hours
  - Since all MISO members benefit, it would be unfair to exclude anyone
- Both the Seventh Circuit and the US Supreme Court upheld the FERC Order on appeal
  - Expect to see other such actions

FERC Issues: Transmission Rate Incentives

- FERC issued a Notice of Inquiry (NOI) in May 2011 regarding its transmission incentive policies
- ELCON's concerns and recommendations:
  - Current policies have contributed to an "alarming escalation in the costs of transmission service" and failed to protect consumer interests
  - FERC should distinguish between rate policies that **reduce utility risk** (such as CWIP and abandoned cost recovery) and **incentives that enhance developer returns** (such as ROR adders and hypothetical capital structures)
  - FERC should favor risk reducing incentives and tie incentives to risk
  - FERC should adopt a "but-for" test that would require developers to make a showing that their projects would not be built absent the incentives

FERC Issues: Transmission Rate Incentives

- In November 2012, FERC issued a Policy Statement
  - Redefining the “nexus test”
  - FERC will now require an applicant to take all reasonable steps to mitigate risks, including seeking incentives designed to reduce those risks, such as construction work in progress, pre-commercial cost recovery and abandoned plant cost recovery
  - FERC no longer will consider a separate ROE adder for an advanced technology
- However, in June 2013, WIRES filed a petition at FERC:
  - Requesting a Policy Statement setting enhanced RORs on equity for high-voltage transmission through revisions to the discounted cash flow methodology
  - On July 26th ELCON, along with many others, urged FERC to continue applying the J&R standard

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FERC Issues: Demand Response

- ELCON has been a strong supporter of DR
  - But DR must be carefully measured and verified
  - DR should be paid amounts commensurate with generators
  - DR offerings should be "reasonably" consistent across markets – but they don't have to be identical
- FERC has issued several rulemakings expanding the opportunities for DR
  - The most recent relates to ancillary services
  - ELCON has been very active in the rulemakings
- Earlier this year FERC approved:
  - "Business practice standards" proposed by NAESB for DR
  - Intended to help DR participate in wholesale electricity markets
  - FERC said that the standards would require accurate measurement and verification of DR resources' participation
- Opposition included:
  - The PJM independent market monitor said that they do not reference peak load and would result in "double counting"
  - The ISO/RTO Council said that the standardized measurement and verification evaluation could lead to the exclusion of resources

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FERC Issues: Geomagnetic Disturbances

- FERC issued a NOPR in October 2012 directing NERC to develop standards to address GMD
  - GMD emanate from the sun and disrupt the Earth's magnetic field causing Geomagnetic Induced Currents (GICs) that may damage electrical equipment
  - The impacts are far greater in northern areas
  - Classic case of a "high-impact, low probability" (HILP) event
- The NOPR has two stages requiring owners and operators of BES facilities:
  - Stage 1: To develop and implement operational procedures
  - Stage 2: Assess the impact of GMDs on the Bulk-Power System and on equipment and develop a plan to mitigate impacts
- NERC recently prioritized issues:
  - And GMD received a "Low" ranking

Other Continuing FERC Issues

- A few other FERC issues that may impact industrial electricity consumers:
  - Are consumers getting net benefits from restructuring?
    - Enernoc is phasing out of ISO NE's capacity market
    - NorthWestern Energy is spending $900 million to buy back hydro dams that were spun off in restructuring
  - Behind the meter generation issues
    - What will become of the January 17, 2013 NOPR on small generator interconnection requests?
  - Frequency response
    - How will variable generation be impacted?
  - Natural Gas / Electricity Interdependency
    - Are pipes in the right places?
  - Smart Grid / AMI
    - EEI has said that "it" could cost $1.5 – 2 Trillion
  - Cyber Security Standards
    - How do Registered Entities move from V3 to V4 to V5?
- ELCON monitors these (and many other) FERC issues for its members (and others)

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Senate Confirmation Hearings re: FERC Chairman

- Ron Binz was nominated as the next Chairman of FERC
  - Former Chairman of the Colorado Commission
  - His record and public statements are very: pro-renewables, anti-coal, anti-gas, pro new transmission, pro socialization of costs for renewables
  - Coal interests are strongly opposed
- Very contentious Senate confirmation hearing
- Binz withdrew his name from consideration on October 1st
  - Now other candidates are being considered
  - The speculation – a sitting Commissioner new???

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NERC Issues: Background

- The North American Electric Reliability Corporation (NERC):
  - Is the FERC-designated “ERO”
  - Develops mandatory reliability standards with up to $1 million / day penalties
  - Any entity that is on NERC’s Compliance Registry must:
    - Comply with all applicable standards
    - Make required compliance filings
    - Be subject to periodic audits
- Increasingly, industrials are becoming “Registered Entities”
  - And thus responsible for compliance with various reliability standards

NERC Issues: Redefining the BES

- FERC directed (Order 743) NERC to redefine the “Bulk Electric System” (BES) within one year:
  - The bottom line: many more industrial facilities may be subject to the “compliance registry” based on the revised BES definition
    - Once an entity is placed on registry, you will REALLY care about NERC
  - The FERC-suggested definition includes “bright line” requirements:
    - All facilities > 100 kV
    - All generators > 20 MW and all generating plants > 75 MW

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NERC Issues: Redefining the BES (Cont.)

- NERC established a "Standards Drafting Team" that:
  - Crafted a new definition of the BES
  - ELCON's John Hughes is on the SDT – the only voting industrial SDT member
- In December 2012 FERC issued Order 773 – its "final rule" – but the SDT continues to work
  - Core definition – all facilities operated or connected at >100 kV are included
  - All Regional Entities must use the same definition
  - Approved 5 "inclusions" and 4 "exclusions"
    - I 2 "includes" individual generators >20 MVA and plants >75 MVA
  - Radials are excluded
    - Unless "looped" at any voltage
    - And tie lines for BES generation are included
  - "Local networks" are excluded – but not well defined (7 factor test)
- The definition was to be in effect as of July 1, 2013 with a 2-year implementation plan

NERC Issues: Redefining the BES (Cont.)

- Originally the BES drafting team thought that I 2 should be much higher
  - However, FERC approved I 2 as drafted
- The BES DT very recently tried to raise the individual generator threshold to 75 MVA
  - NERC's planning Committee strongly opposed:
    - No technical justification
    - Would remove 34 GW (3.3%) of generation from the BES
    - Remove about 6,000 generating units (over 50% of what is excluded today)
    - Smaller units may be needed to satisfy local reserve margins
  - Other BES Issues:
    - Radials, ring busses, others
- The BES DT was able to include in Exclusion 2 a limit of up to 75 MW of net sales for cogenerators

NERC Issues: Redefining the BES (Cont.)

- The BES Drafting Team explored (and rejected) several proposed issues such as excluding:
  - Elements that are owned and operated by an industrial end-user to serve its load
  - Industrial facilities served by multiple feeds through the E 1 exclusion provision
  - Industrial facilities used to serve loads to third parties
- The BES DT said:
  - The definition is “ownership neutral”
  - Decisions are made on engineering interpretations – not jurisdictional interpretations
  - There were no “technical justifications” for the proposals

NERC Issues: Redefining the BES (Cont.)

- FERC postponed implementation until July 1, 2014 to allow additional revisions
  - The revised definition currently is posted for comment
- A key change include:
  - Allowing Exclusion 1 to exclude radials that are looped at 50 kV or less
  - This exclusion is supported by a "Technical Justification" paper
- The revised definition is expected to be:
  - Presented to the NERC Board in November and
  - Approved by FERC prior to June 2014
- Nearly all "bright line" requirements bring unintended consequences
  - We expect many in this case

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Other NERC Issues:

- Reform of the Standards Process:
  - ¶81 and FFT – Effort to reduce compliance burdens
- Reliability Assurance Initiative (RAI)
  - Overall intent – move off "zero tolerance" to risk-based standards
  - What happens to FFT – keeping some violations out of compliance?
  - Will it bring actual benefits to registered entities?
- Communications Protocols:
  - All too often misconveyed routine instructions are involved in outages – human errors?
  - But the "fix" may require a lot more effort and not bring reliability gains – e.g., three-part communications in all situations?
- Three-Year Strategic Plan:
  - While a step in the right direction, lacks sensitivity to costs of registered entities
- ELCON is the only manufacturing association active at NERC

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And Then:
EPA Electricity Activities

- EPA proposed rules that have been receiving a lot of attention include (but are far from limited to):
  - Toxics Rule (Utility MACT)
  - Transport Rule (CSAPR)
  - Cooling Water Rule
  - Coal Ash Rule
  - Utility NSPS for GHG
  - PSD and GHG Tailoring Rule

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Do We Know the Costs of EPA Regulations?

Rule	EPA's Estimate	Industry's Estimate
Utility MACT	$9.6 B annualized cost $35 B upfront capital	$11.9 B annualized cost $84 B - $130 upfront capital
CSAPR – Clean Air Interstate Rule	$3.6 B annualized No capital estimate	$14 - $18 B annualized No capital estimate
Boiler MACT	$1.9 B annualized $5.1 B upfront capital	$2.7 B annualized $14.3 B upfront capital
CCR	$1.5 B annualized $5.1 upfront capital	$2.7 B annualized $14.3 billion upfront capital
Cooling Water Intake Structures	$0.3 - $4.6 annualized No capital estimate	$8 B annualized $149 B upfront capital
Ozone NAAQS	$19 - $90 B annualized	$1 Trillion annualized

Source: Pham, Nam D. and Ikenson, Daniel, "A Critical Review of the Benefits and Costs of EPA Regulations on the U.S. Economy" ndp consulting, conducted for the National Association of Manufacturers, November 2012, pages 12 & 13.

Do We Know the Costs of EPA Regulations?

- Why the differences in cost estimates? NAM suggests:
  - Aggressive assumptions about the capacity to comply:
    - Limited domestic companies that manufacture the necessary equipment
    - Hugh surge in demand for control technologies, equipment and skilled workers
    - Technological innovation may not be realized
  - Amortization masks the true costs:
    - EPA amortizes capital expenditures over 30 – 50 years
    - This downplays the upfront capital requirements
  - Compliance costs assumed away:
    - EPA does not always account for compliance costs with a particular rule that it deems attributable to compliance with another rule
  - Cumulative, macroeconomic costs are not fully considered:
    - With compliance costs projected by some of up to $1 Trillion, there may be declines in economic growth not recognized by EPA
- Bottom line – be ready for electricity price increases – maybe big

EPA's Proposed Rule re: NSPS for NEW Power Plants

- In 2012 EPA proposed a 1,000 lbs of CO_2/MWh standard for all new power plants
  - New coal plants emit roughly 1,800 lbs/MWh and gas plant emit roughly 800 lbs/MWh
  - There was strong opposition to the proposal
  - And concern that it was on shaky legal ground with a single standard for all fuels
- The President gave an address on June 25, 2013 at Georgetown University:
  - Outlining his strong commitment to controlling GHGs
  - The same day he issues a memo to EPA establishing specific deadlines for GHG power plant rules
  - He required EPA to issue the rule for **new** power plants by September 20, 2013 and **existing** plants by June 2014

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EPA's Proposed Rule re: NSPS for NEW Power Plants

- On September 20, 2013 EPA issued its revised rule for GHG emissions for **new** power plants:
  - The new limits are 1,000 lbs/MWh for large gas (slightly higher for smaller units) and 1,100 lbs/MWh for coal units
  - EPA believes that it is on more secure legal grounds with different limits for gas and coal units
    - It is argued that such limits basically ban new coal units without carbon capture and sequestration (CCS) technology
  - The CAA requires EPA regulations to be based on "proven" technologies
    - EPA believes that CCS is a proven technology because the Southern Company is building (with large DOE incentives) a state-of-the-art, coal-fueled (but gas-fired) plant in Kemper, Mississippi

EPA's Proposed Rule re: NSPS for NEW Power Plants (Cont.)

- What do these new proposed regulations really accomplish?
  - **Maybe** very little
  - They may actually simply codify current economics
    - As long as gas prices stay < $7 – new coal plants are uneconomic
  - Certainly the coal industry will argue lost jobs, bad economy, etc. – and will take the regulations to court
    - But the real legal issue is whether or not Carbon Capture and Sequestration technology has been adequately demonstrated as a proven technology as required by the CAA
- However, next year (by June 2014):
  - Regulations will be issued regarding existing power plants
  - The compliance burden will be on each state in State Implementation Plans (SIPs)
  - SIPs may include DSM, DG, utility-funded photovoltaics, etc. – real issues for industrial electricity consumers

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Will the Regulations Actually Reduce Greenhouse Gas Emissions

- A large majority (but far from all) of scientists believe that GHG emissions are the greatest contributor to climate change
  - Reducing GHG emissions thus should reduce climate change
  - However, it appears that the EPA's proposed regulations for NEW power plants may actually reduce GHG emissions only minimally
    - But they may result in existing coal plant retirements
- But perhaps of more importance:
  - The new UN IPCC report can't explain the hiatus in global warming
  - And the World Resources Institute recently concluded:
    - 1,199 new coal-fired power plants with a total installed capacity of 1,401,278 MW are proposed globally today
    - They are in 59 countries – with 70% in China and India
    - Coal trade has risen dramatically in recent years – shifting from the Atlantic market (driven by Germany, the UK, and the US) to the Pacific market
    - Australia is proposing to increase new mine and new port capacity

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Change in the "Social Cost of Carbon" (SCC)

- In May, the Administration revealed:
  - A change in the SCC from $21 to $33 per ton of carbon
  - This substantially raises the "benefits" of carbon reductions
  - And makes it much easier to "justify" the costs of new carbon regulations
- The release was done in a very "quiet way"
  - It was on Page 409 of Appendix 16A of a technical support document for a DOE regulation on the efficiency of microwave ovens – not the first time such release
- House hearings have been held and GAO asked to review the issue
  - However it is very difficult to require change as "Data Quality Act" (DQA) petitions are not judicially reviewable

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Will Congress Roll Back EPA?

- The House has passed many bills restricting EPA in various ways
  - But these bills go nowhere in the Senate
  - And the President would veto the bills if they got to his desk
- We do not expect any real Congressional action restructuring EPA any time soon

How About The Courts?

- The Supreme Court may consider a range of environmental issues in its next term perhaps including:
  - *EPA v EME Homer City Generation, et. al.* (a review of the DC Circuit's overturning of CSAPR)
  - *Coalition for Responsible Regulation v. EPA* (including several petitions seeking review of the DC Circuit's upholding of EPA's initial GHG program, including its endangerment finding)
  - *Luminant Generation Co. LLC v EPA* (seeking overturn of a 5th Circuit ruling upholding EPA's policy that said Texas may not exempt industry from fines for excess emissions during planned startup, shutdown and maintenance events – can EPA substitute its policy preferences for the judgment of the states?)

What About A Carbon Tax?

- Can approach in 2 ways:
  - Raise revenues (and can raise big amounts)
    - A $20 per ton of CO_2 could raise over $1 Trillion in 10 years
  - Reduce carbon emissions
    - If the tax is low – little CO_2 reductions
    - If the tax is high – non starter with Republicans
    - Host of sub-issues such as: double regulation, harms competitiveness, low income impact, international implications, where to impose
- Thus, limited constituency
  - Except for a few economists
  - And a few utilities (with large nuclear portfolios)
- I do not expect a carbon tax in this Congress – or next
  - However, if there is a real effort to reform the tax code, everything is on the table

Conclusions

- You must watch carefully legislative, regulatory, Administrative and court proceedings
  - Many of the expected actions may significantly increase electricity costs
  - And not necessarily in in the same manner for each industrial consumer
- It is in your best interest to protect your relative competitive positions through vigorous individual and group actions
  - That’s why belonging to groups like MI and ELCON are so important
- Thanks for you’re the opportunity to be with you today

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NOTE: Our office will move next month