Electricity Costs: EPA's NSPS and a Few Other Issues That Could Impact Industrial Electricity Users

A presentation by:

John Anderson, President & CEO
Electricity Consumers Resource Council (ELCON)
Washington, D.C.

At:

National Lime Association's Annual Meeting,
New Orleans, LA
June 10, 2014

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
- However, the views today are mine alone

What I Plan To Do Today

- Discuss electricity issues relating to:
  - Recent EPA proposed rules
  - Possible Congressional actions
  - FERC leadership – and why it is important
  - A recent Court decision on Demand Response
  - NERC – and why you should be aware
  - Finally – grid security
- My main objective is to point out that each of these issues could result in perhaps significant electricity cost increases
  - And the impacts may not be uniform for customers

Recent EPA Electricity Activities

- From a large industrial electricity consumer viewpoint, current Administrative actions are primarily EPA actions
- EPA proposed rules that have received a lot of attention include (but are far from limited to):
  - Toxics Rule (Utility MACT)
  - Transport Rule (CSAPR)
  - Cooling Water Rule
  - Coal Ash Rule
  - PSD and GHG Tailoring Rule
- What are the increased electricity costs?
  - EPA estimates a couple of hundred billion
  - But industry suggests more than a couple of trillion
  - Only time will tell – but there could be significant increases

ELCON

Current Administration Actions

- The EPA activities of most current interest include proposed implementation of key provisions of the Clean Air Act (CAA):
  - 111(b) proposed rule – affecting **NEW** coal generators – published in the ***Federal Register*** on January 8, 2014
  - 111(d) proposed rule – affecting **EXISTING** coal generators – Proposed rule announced Monday, June 2, 2014

111(b): EPA's Proposed Rule re: NSPS for NEW Power Plants

- The 111(b)proposal establishes:
  - New limits of 1,000 lbs/MWh for large gas (slightly higher for smaller units) and 1,100 lbs/MWh for coal units
  - EPA believes legal challenges may be reduced with different limits for gas and coal units
  - The coal industry (and others) argue that such limits basically ban new coal generators without carbon capture and sequestration (CCS) technology
- The CAA requires EPA regulations to be based on "proven" technologies
  - EPA states that CCS is a proven technology because several demonstration projects are underway
  - However, even some Administration officials have expressed concern that the CCS technology is not proven through only 1 or 3 projects that have received federal financial assistance, are not yet operational and are facing cost overruns in the hundreds of millions of dollars

111(b): EPA's Proposed Rule re: NSPS for NEW Power Plants

- What do these new proposed regulations really accomplish?
  - **Maybe** very little
  - They may actually simply codify current economics
    - As long as gas prices stay less than around $7 – new coal plants are uneconomic
  - Certainly the coal industry will argue lost jobs, bad economy, etc. – and have taken the regulations to court
    - But the real legal issue may be whether or not CCS technology has been adequately demonstrated as a proven technology as required by the CAA
- Yet they do allow for some great political posturing
  - As an example, the "Rs" required a floor vote on a bill to repeal EPA's NSPS for new power plants
  - Hoping to target vulnerable "Ds" in states with economies heavily invested in coal

ELCON

111(d): EPA's Proposed Rule re: NSPS for EXISTING Power Plants

- EPA released the proposed 111(d) rules last Monday
  - **This could be the really significant electricity cost issue**
- EPA believes that it is compelled to regulate GHG-emitting stationary sources under the PSD and Title V CAA provisions
  - EPA believes that CO2 is one of "any air pollutant" regulated under the CAA
  - However, EPA also believes that strictly following the CAA's PSD requirements of 100/250 tpy for non-GHG emissions would result in an "absurd result"
  - EPA thus set the requirements for GHGs at 75,000/100,000 tpy

111(d): EPA's Proposed Rule re: NSPS for EXISTING Power Plants

- EPA's proposed rule will require a 30% cut in carbon emissions from 2005 levels from the power sector by 2030
  - The final rule is expected in June 2015
  - States then have 1 to 3 years to submit their final plans
- EPA claims that this proposed rule will:
  - Avoid up to 6,600 premature deaths
  - Up to 150,000 asthma attacks in children
  - Up to 490,000 missed work or school days
  - Provide up to $93 billion in climate and public health benefits, and
  - Shrink electricity bills roughly 8% by increasing energy efficiency and reducing demand in the electricity system
- Each state is given a carbon reductions requirement
  - And each state will identify its path forward

ELCON

111(d): EPA's Proposed Rule re: NSPS for EXISTING Power Plants

- Opponents argue the rule will:
  - Lower GDP by $51 B on average every year through 2030
  - Lead to 224,000 fewer US jobs on average each year
  - Force US consumers to pay $289 B more each year for electricity through 2030
  - Lower total disposable income for US households by $586 B through 2030
- There is concern that the claimed "shrinking of electricity bills" and "reduced demand" is simply the result of significantly higher electricity prices

ELCON

111(d): EPA's Proposed Rule re: NSPS for EXISTING Power Plants

- Expect a lengthy and protracted legal challenge
- Roughly 600 coal plants will be affected
- Unresolved issues include:
  - "Beyond the Fence" GHG reductions (e.g., DSM programs, EE, etc.)
  - Market-based mechanisms such as multi-state bubbles, trading and banking (e.g., RGGI)
  - Equivalency, i.e., allowing a suite of state programs to be equivalent to the lbs. CO_2/MWh reduction at a covered source
  - National emissions standard versus state standards
  - Allowance for past actions (e.g., RPS)

111(d): EPA's Proposed Rule re: NSPS for EXISTING Power Plants

- Major challenges are expected but the results are far from clear:
  - The courts – but the Supreme Court has been clear that the CAA allows EPA to regulate GHG to combat climate change
  - The states – each state is different – perhaps significantly different – but not unified
  - Congress – but opponents have few real weapons – President Obama almost certainly will veto any bill disabling the climate program
  - A New President – but any new President will not take office until January 2017 – the program then has been in effect for over a year

Climate Change Will Remain An Important Issue

- Even if the Rs take over the Senate and keep the House
  - Climate change will continue to be a front-burner issue
- Ds in Congress have launched a "Wake-Up Call"
  - They are using the "bully pulpit" to encourage the Administration to take more action on climate change
- The Administration continues to push GHG action
  - If Congress won't take action, the Administration will
  - The President has stated:
    - "Climate change is a fact"
    - His 2015 Budget calls for repeal of $4 billion in tax incentives for oil, gas and other fossil energy and, for the first time, incentives for CCS for gas-fired generators
    - The latter is intended to help "prove" that CCS is "proven"

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 restricting EPA any time soon
  - Although some provisions could be attached to certain Appropriations Bills

ELCON

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)
- We do not expect a Carbon Tax in this Congress – or the next
  - However, if there is a real effort to reform the tax code, everything is on the table

Congressional Actions (or Inactions) on Energy

- Republican rhetoric continues:
  - Regulations are bad
  - Government expenditures are bad
  - Government is bad
- Democratic dogma also continues:
  - 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

- The current focus in Congress is:
  - Get Elected – or Re-Elected
  - Get Seats
- The Ds need a net of 19 in the House
  - This is unlikely
- The Rs need a net of 6 in the Senate
  - This is possible – but far from assured

ELCON

In Spite of This, What COULD Pass?

- Its hard to tell
  - There is a new Committee Chairman in the Senate Energy Committee (Landrieu – LA)
  - The Ranking Minority – Murkowski (AK)
  - Lots of oil and gas background with both
  - But its hard to envision anything significant actually happening
- A possibility – Energy Efficiency
  - Final days of last Congress, the Senate added EE provisions to a narrow House bill – required a study of industrial efficiency and CHP by DOE – but the results appear to be less than favorable
- On March 5, 2014 the House passed a bill (375 – 36) which provides incentives to landlords and tenants who increase EE
  - There also is a much broader EE bill in the Senate
- But EE now appears to be dead for this Congress
  - Speaker Reid could get only 55 votes to proceed although over 70 Senators would have voted for the bill

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" has been high priority
    - The policy positions of the new Chairman is unknown
  - A recent court decision raises many questions about both demand response and overall FERC authority
  - NERC is taking actions that can add substantial costs due to increased registration and then compliance costs
  - And grid security is of increasing concern for many
- A few comments on each follow

ELCON

The New FERC Chairman?

- The Administration has nominated Norman Bay to be the next Chairman of FERC
  - Bay currently is the director of FERC's Office of Enforcement
  - A former law professor and U.S Attorney in New Mexico
  - He cracked down on Wall Street banking giants in the gas and power markets
- Why Norman Bay?
  - He offers a "clean slate" – no policy background
  - There are 2 other sitting Ds on the Commission
  - There is a lot of criticism of the Bay nomination
- Why is this important?
  - Leaving FERC in an unknown situation
  - There are real questions regarding FERC's future advocacy

DC Circuit Vacates FERC's Order 745 on Compensation of Demand Response

- "Demand Response" (DR) involves the reduction in consumption of electricity in exchange for compensation
  - Most DR programs are in restructured electricity areas involving ISOs or RTOs
  - FERC's Order 745 required the payment for DR to be equal to the payment to generators for putting electricity into the grid
  - Many industrials have found DR to be very beneficial
- The DC Circuit vacated Order 745 in late May 2014
  - The 2-judge majority ruled that FERC exceeded its authority by "luring" retail customers into wholesale markets – states have exclusive jurisdiction over retail electricity sales – and said that payments equal to generators was arbitrary and capricious
  - The minority dissent (twice as long as the majority opinion) strongly disagreed saying (1) DR reduces peak demand and system imbalances, (2) mitigates the market power of pivotal suppliers, and (3) enhances system reliability

ELCON

DC Circuit Vacates FERC's Order 745 on Compensation of Demand Response

- The implications for industrials are several:
  - First, if the ruling stands industrials lose a sizable potential source of revenue
- But perhaps a larger concern involves overall FERC authority
  - It is difficult to draw a bright line between wholesale sales (FERC jurisdictional) and retail sales (state jurisdictional)
  - Nearly all issues impact both wholesale and retail markets
  - Vacating this Order could have very significant impacts on FERC's overall authority
- It is too early to know if the Court Order will be appealed

Additional Challenges: NERC

- 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

ELCON

NERC Issues: Redefining the BES

- In 2010, FERC directed (in Order 743):
  - NERC to redefine the "Bulk Electric System" (BES) within one year
  - On Rehearing in 2011, FERC upheld this Order
- The FERC-suggested definition included "bright line" requirements:
  - All facilities > 100 kV
  - All generators > 20 MW and all generating plants > 75 MW
- The bottom line: many more industrial facilities would be subject to the "compliance registry" based on the FERC-recommended BES definition
  - Once an entity is placed on registry, you will REALLY care about NERC

ELCON

NERC Issues: Redefining the BES

- 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
  - NERC approved the SDT's efforts and filed with FERC

ELCON

NERC Issues: Redefining the BES

- In December 2012 FERC issued Order 773 – its "final rule":
  - 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
    - However, industrial CHP units can sell up to 75 MVA without risk of registration regardless of nameplate ratings of unit(s) inside the fence
  - 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
  - There was a LOT of backlash

ELCON

NERC Issues: Redefining the BES

- On rehearing, FERC postponed implementation until July 1, 2014 to allow additional revisions
- NERC's revised definition was:
  - Presented to the NERC Board in November and
  - FERC approved the NERC proposal on March 20th
- A key change include:
  - Allowing Exclusion 1 to exclude 2 or more radials that are looped at 50 kV or less (ELCON asked for 70 kV)
  - This exclusion is supported by a "Technical Justification" paper
- ELCON believes that nearly all "bright line" requirements bring unintended consequences
  - We expect many in this case

Finally – Grid Security

- Protecting grid security involves: cybersecurity, physical security, electromagnetic pulse (EMPs) and geomagnetic storms (GMSs) – maybe more
  - Cybersecurity – thousands of hackers both foreign and domestic
  - Physical security – guns, trucks, even bombs on generators, substations and transmission lines
  - EMPs and GMSs – from sunspots and/or nuclear explosions in the air (high impact, low frequency events)
- Cyber and physical security have received a lot of recent attention
  - FERC, NERC and Congress are considering addressing
  - Any effort may be very costly

Grid Security

- Recent cyber and physical attacks have raised the level of concern throughout the economy
  - Several utilities have been hacked
  - NERC has several cyber standards in effect that require substantial actions by “registered entities”
  - Some say that is not enough – but where do we “draw the line” between sweeping in more entities and facilities and the increased costs?
  - The costs of grid protection escalate quickly as the “number of 9’s” increases
- The past Chairman of FERC recently raised the physical security issue to higher levels
  - In the *Wall Street Journal*, PBS and more

Grid Security

- Until recently, the electric industry has avoided draconian actions
  - ELCON participates in a coalition of electricity stakeholders
  - Including utilities, generators, state commissioners, ISOs, NERC, Canadians, etc.
  - Objectives: grid security, information sharing, avoid over reactions – and keep costs reasonable
  - ELCON is the only consumer group in the coalition
- Unfortunately, as we learned from 9/11
  - It only takes one real catastrophic event to spur action
  - And if Congress, FERC or NERC over-reacts from such a catastrophe, the costs could be in the hundreds of millions

ELCON

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 the Lime Association and ELCON are so important
- Thanks for the opportunity to be with you today

To Contact ELCON

Phone:	202-682-1390
E-mail:	janderson@elcon.org
Web site:	www.elcon.org
Address:	1101 K Street N.W., Suite 700 Washington, DC 20005