Federal Legislation and Regulation: Challenges and Opportunities for Large Electricity Consumers

A presentation by:

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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

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Possible Federal Energy Legislation?

- Senate energy committee Chairman Bingaman (co-sponsored by 8 others)
  - Introduced a federal RES bill
  - Requiring electricity suppliers > 4 million mWh to meet 15% of their power from renewables by 2021
- Others are pushing for a large variety of energy proposals including:
  - Energy efficiency, conservation, extensions of clean energy taxes, incentives for electric and natural gas vehicles, land and water development fund, oil spill liability, incentives for new nuclear plants, feed-in tariffs etc.

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However, The Conventional Wisdom

- No significant new Federal energy legislation enacted and signed into law in 2010
  - The House-passed “cap and trade” bill is dead for this year – and perhaps much more
  - Energy action in the “lame duck” session is questionable – at best
    - The calendar is very full with “must pass” bills including: appropriations, defense authorization, tax extensions, small business assistance, etc.
    - The probability of enactment may be reduced even more depending upon the November elections
- One possible exception – Cyber Security???

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What To Expect From A New Congress?

- Democrats will continue to pursue the same objectives:
  - But they might have to settle for reduced emissions through Energy Efficiency (EE) and/or a Renewable Energy Standard (RES)
- Republicans will advocate:
  - Reduced oil imports through increased domestic drilling
  - Nuclear
  - Perhaps EE and RES also
  - But no cap and trade

But… Industrials Are Still Vulnerable

- There are many issues with potentially large impacts on electric utilities – and thus on electricity consumers
  - FERC is pushing very hard to make "green energy" policies friendly
    - However, renewables are very expensive and often are not available when and where they are needed
  - And – as CIBO members know all too well – EPA is moving aggressively on many clean air issues
  - Industrial electricity consumers can be harmed, perhaps substantially, by many issues

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FERC Activities: Transmission Cost Allocation

- FERC appears to be pushing hard for new high voltage transmission
  - To bring distant (primarily wind) generation to load centers
  - This transmission would be VERY expensive – literally hundreds of billions of dollars
  - And the geographic benefits of such new transmission vary substantially

FERC Activities: Transmission Cost Allocation

- PJM proposed, and FERC approved, a "postage stamp" method of allocating costs for extra high voltage (EHV -- > 500kV) transmission
- In August 2009, the 7th Circuit, in a 2-1 decision:
  - Overturned FERC's approval of PJM's method of allocating costs for EHV transmission
  - The Court ruled that the record did not justify rejecting the traditional "beneficiary pays" method of cost recovery
  - The Court stated that FERC is not authorized to approve a pricing scheme that requires some consumers to pay for facilities from which they receive no benefits
  - The Court concluded that FERC need NOT calculate benefits to the last penny, to the last million or ten million or perhaps hundred million dollars, but it must compare costs and benefits

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FERC Activities: Transmission Cost Allocation

- However, the dissenting judge (Posner) stated:
  - An unbending devotion to beneficiary pays in every instance can only ignite controversy, sustain arguments and discourage construction while the nation suffers from inadequate and unreliable transmission
  - The dissenting judge then basically pointed out how FERC could "socialize" transmission costs using a "roughly commensurate" standard

FERC Activities: Transmission Cost Allocation

- In June, FERC initiated a major new NOPR addressing:
  - Transmission planning, cost allocation, and right of first approval
  - The NOPR has the potential for a substantial negative impact on bulk power transmission rated
  - The NOPR gives lip service to the beneficiary pays concept, but then seems to suggest alternatives to allow socialization

FERC Activities: Transmission Cost Allocation

- ELCON's comments included:
  - Planning should identify beneficiaries
  - The mandatory interjection of state "public policy" is inappropriate
  - There should be no deviation from the beneficiary pays principle
    - Broad socialization of transmission costs would mask or distort price signals and lead to poor resource selection and siting as well as rates that are not J&R
- This is truly a work in progress – with substantial cost consequences

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FERC Activities: Electricity Storage

- Increasing quantities of renewables have greatly increased interest in electricity storage
  - At present, storage is very expensive
- FERC issued a NOI on storage
  - ELCON commented:
    - Storage should be a part of a generic commission policy on “resource neutrality”
    - Variable energy resources, DR and storage should be considered in a single, generic rulemaking
    - Rate treatment should be based on cost causation principles

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FERC Activities: Demand Response

- FERC initiated a NOPR
  - FERC proposed paying DR "full LMP" – the same as generators
- ELCON strongly supported FERC's proposal
  - And further recommended that
    - DR providers should be allowed to participate in the energy markets on a 24-7, year-round basis
    - There is no need for a "net benefits test"
    - DR costs should be allocated the same as generator costs
- Those on the supply side strongly oppose these proposals
  - And are spending tremendous resources to try to have the proposal reversed

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FERC Activities: Other Issues

- Issues related to NERC – e.g.:
  - Re-define BES – and include many more industrial facilities
  - Changes in NERC's Rules of Procedure (ROP) – reducing the influence of stakeholders, perhaps substantially
  - Once you are placed on NERC's "compliance registry" you will REALLY care about NERC
- FERC Penalty Guidelines
- ISO/RTO Performance Metrics
- Behind the meter generation issues
- Smart Grid / Smart Meters / etc.

New EPA Activities

- EPA's Administrator Lisa Jackson
  - Has become one of the Obama administration's most energetic regulators
  - EPA has proposed 42 "significant" (> $100 million impact) regulations in the past 18 months
  - EPA recently issued a "Strategic Plan" for 2011-15 stating that "Taking Action on Climate Change and Improving Air Quality" is its top strategic goal
  - Jackson has said that past warnings about the economic toll of environmental regulation have often overestimated the costs
  - She has stated that the US wants an EPA that protects families and the places where we live, work and play – while not protecting big polluters and the status quo

New EPA Activities

- As CIBO members know all too well, a Supreme Court decision has motivated very significant actions by EPA
  - EPA has determined that GHGs are a "detriment to human health"
  - Thus, EPA states that it has both an obligation and the authority to regulate GHGs under §202a of the CAA
  - The EPA is now developing very broad and comprehensive rules to regulate GHGs – starting in January 2011
    - Unless Congress overturns EPA's authority (the Rockefeller proposal – more later)

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CIBO's Study

- CIBO commissioned HIS Global to:
  - Analyze EPA's proposed new Maximum Achievable Control Technology (MACT) standards
  - Intended to address hazardous air pollutant (HAP) emissions
  - That would impose tight limits on five HAP pollutants including: mercury, hydrogen chloride, particulate matter, carbon monoxide, and dioxins/furans
- The study concludes:
  - Every $1B spent on upgrade and compliance costs will put 16,000 jobs at risk and reduce US GDP by as much as $1.2B
  - Hundreds of thousands of jobs could be lost

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While CIBO's Study Paints A Bleak Picture

- The EPA is going way beyond MACT standards applied to industrial boilers
  - With a potential for even greater economic harm through higher electricity prices
- Utilities will be impacted by (to mention a few):
  - New Source Review:
    - Any new or substantially modified power plant must undergo extensive review for environmental impacts using BACT
  - State implementation plans for "prevention of significant deterioration" (PSD) permits
    - Must consider GHG emitted from large, newly-constructed or modified facilities starting on January 2, 2011
  - Clean Air Interstate Rule (CAIR – or the Transport Rule)
    - And environmentalists are urging EPA to expand the geographic scope of its proposed cap-and-trade provisions to the Western states
  - Coal Ash
- I admit – this is way beyond my expertise

The Potential Impact Of EPA's Actions Are Gaining Attention

- The National Mining Association said:
  - That if rolled together, the cumulative impact of the new EPA regulations will be "extraordinarily expensive."
- AEP said that the new rules:
  - Could potentially result in the retirement of 20% to 30% of its coal fleet in the next four to six years
- More than 100 House members (including 45 Democrats) have written EPA encouraging a flexible approach
- And 41 Senators (including 17 Democrats) wrote a similar letter

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The Potential Impact Of EPA Electricity Activities

- NERC recently has raised concern that pending EPA rules will significantly impact planning reserve margins
  - NERC looked at:
    1. Cooling water intake structures (close open loop cooled systems and retrofit with cooling towers)
    2. Maximum Achievable Control Technology (MACT) standards for hazardous air pollutants (e.g., mercury)
    3. CAIR and
    4. Coal combustion residuals (CCR) surface impoundments

    [Note: GHG rules were studied in another NERC report]

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The Potential Impact Of EPA Electricity Activities

- NERC said:
  - The MACT Rule alone could trigger the retirement of 2 – 15 GW of existing coal capacity by 2015
  - The CAIR could result in the retirement or derating capacity of 3 – 7 GW of capacity and require retrofitting of 28 – 576 plants with environmental controls by 2015
  - The CCR Rule is projected to result in the retirement of 12 coal units with 388 MW of capacity

Additionally

- The Federal Trade Commission just
  - Urged EPA to reconsider its proposal to limit confidential business information (CBI) in its GHG reporting rule over concerns that the public release of emissions and other data could provide facilities with opportunities for unlawful collusion in pricing decisions
- This may open yet another legal battleground over EPA's plans to regulate GHGs

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EPA's Reactions

- EPA's Jackson very recently went on what one report described as a "charm offensive"
  - To try to calm industry fears that EPA's new regulations will have devastating negative impacts on the economy
  - Jackson rebutted what she described as "wild projections of economic collapse" being circulated by lobbyists
- Jackson set forth 5 principles that she says will guide EPA's regulations and lower costs including:
  1. Promoting EE and updated technologies
  2. Addressing multiple pollutants at once
  3. Setting clear and achievable standards while allowing flexibility
  4. Seeking input from all stakeholders
  5. Focusing on the most cost-effective strategies

However…

- Administrator Jackson’s calming assertions did not appear to work
  - The Business Roundtable and 24 other industry associations responded by sending letters to Congress strongly requesting a 2-year delay in EPA’s authority to regulate GHGs
  - And over 90 sets of plaintiffs (including oil and coal companies, conservative think tanks, and a coalition of states) in at least four different cases are continuing challenging EPA’s actions and/or authorities

Will Congress Slow EPA?

- Senate Leader Reid has long promised a vote on Senator Rockefeller's bill to remove EPA's authority to regulate GHGs for stationary sources for two years – but so far there has been no vote
  - Sen. Rockefeller now has 53 supporters
  - But it probably will not be considered on a stand alone basis
  - And, even if it passes the Senate it has to go to the House
  - And, it is subject to a Presidential veto

Is There Light At The End Of The Tunnel?

Is There A Reason To Be Optimistic?

- Two developments MAY bring some reason to be at least a little optimistic:
  - The November elections and then a *possible* political recognition that compromise is the only realistic alternative, and
  - A recent court decision *may* affect EPA's ability to implement the proposed new regulations
- I am trying to be optimistic

A Possible Compromise?

- Very recently AEI, Brookings and the Breakthrough Institute released a report concluding:
  - Though Washington and policy elites were polarized by the "climate wars" of the last decade
    - Americans as a whole remain largely united in their attitudes toward energy policy – appreciating cheap fossil energy but willing to pay modestly more for affordable clean energy
  - While conservatives may be celebrating the death of cap and trade, the truth is that the right's longstanding hopes for the expansion of nuclear power and oil production have also run aground
- These are interesting conclusions from widely divergent points of view

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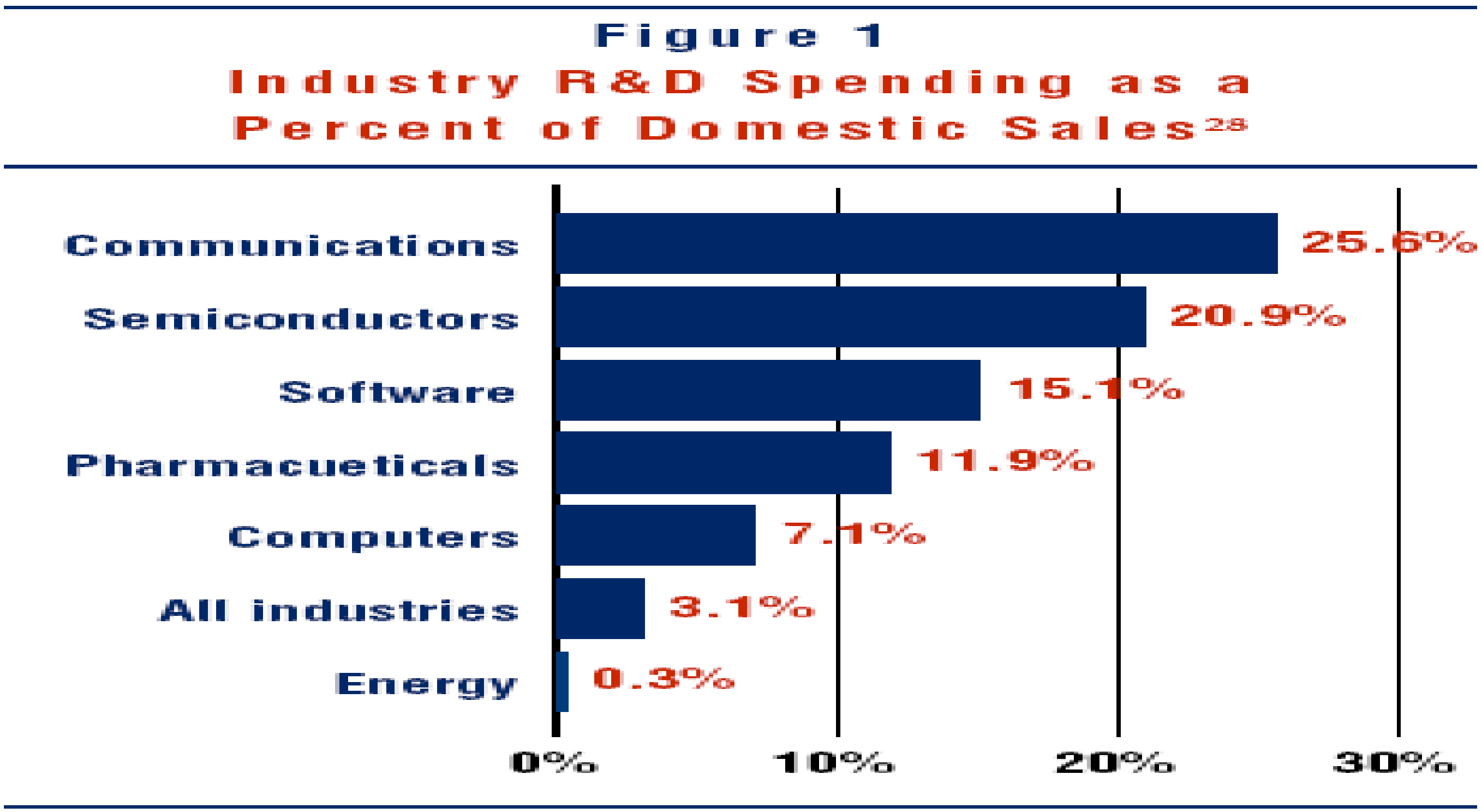
The Report Sets Forth Two "Premises":

(1) America will make little sustained progress in transforming the U.S. energy economy or fully capturing the economic opportunities in new clean energy export markets until alternatives to conventional fossil fuels become cheaper

(2) The only path to accomplishing this key objective – making clean energy cheap – is vastly expanded research, development, and early stage commercialization of deployment of clean energy technology

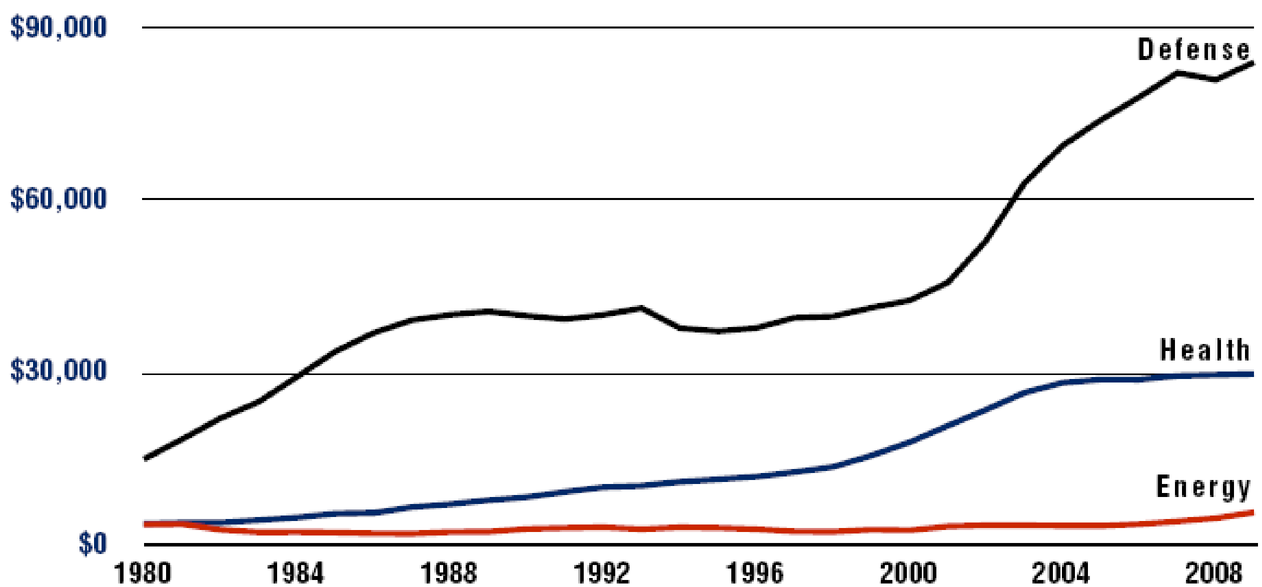
Industry R&D Spending



US Federal R&D Expenditures

Figure 2

U.S. Federal R&D Expenditures, 1980-2009 (million nominal dollars)[32]



The Post-Partisan Path to Save, Clean, and Secure Energy

(1) Invest in energy science and education

- Increase funding in energy science and research
  - Following on DOE's Office of Basic Energy Science in 2001
  - The National Academies study in 2005
  - The America COMPETES Act of 2007
- Educate the energy generation
  - Like we did after the Soviet launch of Sputnik
  - Putting us somewhat on the scale of China and South Korea

The Post-Partisan Path to Save, Clean, and Secure Energy

(2) Overhaul the energy innovation system

- Create energy innovation "clusters" that would leverage federal funding by securing other investments
- The concept is similar to:
  - The Defense Advanced Research Projects Agency (DARPA) (famous for inventing the Internet, GPS and countless other technologies) and
  - The Advanced Research Projects Agency for energy (ARPA-E) that resides within DOE

The Post-Partisan Path to Save, Clean, and Secure Energy

(3) Reform energy subsidies and leverage military procurement and competitive deployment incentives to drive price declines

- DOD has a long history of driving innovation and price declines in areas such as radios, microchips, lasers, camera lenses, etc.
- Subsidies should be aimed at low-carbon technologies that:
  - Have been demonstrated and proven feasible
  - Currently are priced above the normal market rate
  - Have the potential for significant and sustained cost and performance improvements
  - Have strong prospects for significant market penetration
- Embrace the potential of nuclear – esp. small

The Post-Partisan Path to Save, Clean, and Secure Energy

(4) Internalize the cost of energy modernization and ensure investments are deficit neutral

- These proposals will cost between $15 and $25 billion per year
- New initiatives should not add to the debt so:
  - Phase out current subsidies for wind, solar, ethanol, and fossil fuels
  - Modestly increase the royalties charged to oil and gas companies and direct revenues to new energy technology
  - Implement a small fee on imported oil
  - Establish a small surcharge on electricity (similar to the fee for the Highway Trust Fund or nuclear waste)
  - Dedicate revenues from a very small carbon fee (roughly $4 to $5 per ton of CO_2)

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What Is The Potential For Such Compromise?

- The report calls for:
  - "Phase out current subsidies for wind, solar, ethanol, and fossil fuels"
  - This will not happen any time soon
- But – Will there be other compromises that will be politically acceptable to both parties?
  - Only time will tell

A Recent Court Decision

- Recently, a recent decision from the US Court of Appeals for the 7th Circuit written by Judge Posner *(United States of America, et al. v. Cinergy, et al.)*:
  - The CAA does not authorize the imposition of sanctions for conduct that complies with a SIP that EPA has approved
  - Thus, EPA cannot enforce any pollution control requirements not included in an approved SIP
- Further, it is my understanding that:
  - 13 states do not include GHGs in their SIPs and thus cannot regulate GHGs – and it could take years to amend their SIPs
  - 37 states have the authority to limit GHGs in their SIPS – but without formal SIP amendments, they cannot implement EPA's "tailoring rule" limiting implementation to facilities that emit 75,000 tons of GHG per year

A Recent Court Decision

- EPA's regulations are scheduled to take effect on January 2, 2011
- Until SIPs are modified -- A process that can take years
  - States will have to issue GHG permits to sources that emit more than 250 tons per year
  - This will include office buildings, hospitals, schools and possibly even restaurants
- This may result in shutting down any new or significant modifications GHG emitting facilities

A Recent Court Decision

- The unintended consequence may be really big
  - EPA's prevention of significant determination (PSD) permit program takes effect when construction or significant modification begins
  - Thus, any construction project that begins on or later than January 3rd in any state that has not amended its SIP must, forever, be in compliance with the regulations in affect that day
  - Amending the SIP later does not change the compliance requirements – even if EPA states that it will use enforcement discretion and not take action

A Recent Court Decision

- Will there be a stay? An appeal?
- Will Congress act?
  - Congress could postpone – or even remove – the EPA authority/mandate to regulate GHGs
  - But the chances of this actually happening in the lame duck session are very low
  - Thus, there could be a real "SIP gap" beginning on January 2, 2011
- Of course, this decision only applies today in the 7th District
  - And it might be appealed
- At a minimum, this decision has made a lot of lawyers happy

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Conclusions

- I do not expect the US Congress will not take any real action on energy issues in the near term
- But that does not mean that industrial electricity consumers can be confident that electricity costs will not rise – perhaps significantly
  - FERC is very busy trying to make the electric industry friendly for “green” resources
  - And EPA is working than it ever has attempting to implement many new and substantial rules
- There might be a light at the end of the tunnel
  - But is it the end of the tunnel – or the light on the engine of the freight train coming right at us?
- Industrials must defend themselves – or pay the consequences
  - And the cost increases could be substantial

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