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# Energy and Environmental Law Institute with the University of Houston Law Center
# Emerging Issues For Electric Power

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What a difference one election makes. In June 2009, with the President's blessing, the House of Representatives passed HR 2454 by a vote of 219 – 212. The sweeping climate and energy package pledged to reduce greenhouse gas emissions to more than 80% below 2005 levels by 2050[1]. Fast forward to President Obama's 2011 State of Union address and gone were any references to addressing climate change. Instead, the President announced a new, underwhelming 80 target: his support of an 80% clean energy standard by 2035[2]—nevermind that using Obama's metric, we're at a 50% clean energy standard in 2011[3]. The landside republican gains in the midterm elections have profoundly scaled back the energy and climate debate in Washington, DC, and placed most clean energy incentives and regulatory protections on the defensive. Although it's important to note that one shouldn't conclude that the election was a mandate against taking action on climate change or promoting sustainable energy: the only climate related issue on the November ballot was California's Proposition 23, which sought to repeal AB 32, the Global Warming Solutions Act of 2006, and 61% of Californians rejected it (and therefore voted to preserve the state's climate change law).[4]

**We Need Clean Energy Financing – Not Clean Energy Standards**

When the President announced a new target of obtaining 80% of America's electricity from "clean" sources by 2035, it's on the assumption that most of that goal will be met with a) existing and ramped-up natural gas, nuclear and renewable generation; and b) that carbon capture and storage will make coal a viable part of this standard – which is a big assumption given the massive technical, financial and legal barriers that will continue to plague this technology in the years to come. Meeting this clean energy target with new nuclear, coal or large-scale renewables will be impossible absent effective federal incentives, as these new technologies

[1] www.gpo.gov/fdsys/pkg/BILLS-111hr2454pcs/pdf/BILLS-111hr2454pcs.pdf
[2] www.whitehouse.gov/state-of-the-union-2011
[3] www.eia.doe.gov/cneaf/electricity/epm/table1_1.html
[4] www.ballot.org/2010

require significant financial assistance to overcome skyrocketing capital costs (particularly nuclear and coal) and other logistical challenges.

Obama has proposed cutting about $5 billion a year in current oil company tax breaks in an effort to jump start clean energy financing[5], but this falls far short of what's needed (although with crude oil trading in excess of $90 a barrel, high market prices – and not government tax breaks – provide all the incentive necessary for the oil industry to fully develop US resources). Senator Bingaman's proposed Clean Energy Deployment Administration,[6] an independent corporation financed through the Treasury's sale of special bonds, would replace the flawed Department of Energy Loan Guarantee program,[7] but CEDA will also have limited funds.

The most effective way to provide the financing needed for tomorrow's expensive no- and low-carbon energy sources is by employing a carbon tax. Such a tax could easily raise $26 billion a year by 2015,[8] and we already have a bi-partisan carbon-tax-esque bill in the US Senate: S.2877 co-sponsored by Senators Maria Cantwell and Susan Collins[9].

**Everybody Loves Natural Gas Except When It's Expensive and Contaminates Drinking Water**

We cannot assume that current low and stable natural gas prices can be relied on long-term. Prices have recently separated from crude oil and remained at affordable levels courtesy of the explosion of domestic shale production. But with hydraulic fracturing coming under increased scrutiny for water contamination, it would be irresponsible to assume that this practice will remain unregulated[10]. Increased regulation of shale gas drilling and extraction, combined with the fact that history is littered with false predictions of low commodity prices, and adding the fact that gas' greenhouse gas emissions advantage over coal appears to be vastly overstated, [11] make the current natural gas fad unsustainable.

**The EPA Commeth, Congress Taketh Away?**

Given the level of uncertainty surrounding the impending regulation of greenhouse gasses under the Clean Air Act, and promises of legislative and appropriations fights over the Environmental Protection Agency's imposition of dozens of rules surrounding their existing authority over point source emissions[12], Public Citizen predicts continued paralysis in utility investment in power generation. The industry requires some regulatory certainty, and the current political climate isn't providing that. While the Chamber of Commerce[13] and other industry groups claim that

[5] www.whitehouse.gov/sites/default/files/omb/budget/fy2011/assets/budget.pdf
[6] http://energy.senate.gov/public/_files/CEDAOnePageSummary.pdf
[7] http://lpo.energy.gov/
[8] www.ourfiscalsecurity.org/fiscal-blueprint/
[9] www.gpo.gov/fdsys/pkg/BILLS-111s2877is/pdf/BILLS-111s2877is.pdf
[10] www.scientificamerican.com/article.cfm?id=the-drillers-are-coming
[11] www.propublica.org/article/natural-gas-and-coal-pollution-gap-in-doubt
[12] http://multimedia.wri.org/eei_timeline_response.ppt
[13] http://energyxxi.org/reports/Blue_Print.pdf

imposition of pending EPA rules will be bad for the economy, a recent study concludes that "electric system reliability can be maintained while the industry complies with EPA's air regulations."[14]

**Transmission Consternation**

In addition to the significant capital cost barriers of proposed new nuclear and coal-fired units are the associated transmission infrastructure upgrades needed to move the power from new sources to population centers. Trying to build any new type of large infrastructure system designed to accommodate our centralized power system has traditionally run into Not In My Backyard (NIMBY) opposition, which recently appears to have morphed into Not on Planet Earth (NOPE). Population density in the US has increased 87% from 1950 to 2000—from 42.6 people per square mile in 1950 to 79.6 people per square mile in 2000.[15] With more people living per square mile than ever before, Americans' Fifth Amendment Constitutional right to due process guarantees that large projects will continue to be delayed. Congress' unwillingness to grant the Federal Energy Regulatory Commission ultimate authority over transmission siting leaves the permitting at the state level, where property owners will continue to hold sway over project developers. Meanwhile, the plummeting cost of solar photovoltaics, continued advances in micro-wind turbines, and continued permitting successes of geothermal are providing more opportunities for distributed renewable energy generation.[16]

**Inefficient Smart Meters**

Focusing only on new generation misses half the equation, as energy efficiency is the key to reducing demand, saving consumers money and reducing the need for new power plants. But the Administration has been too focused on the promise of alleged salvation of *smart meters*. Public Citizen's recent presentation at the Energy Investment Forum on the problems with smart meters[17] identifies several issues to correct going forward, including:

- Smart meter proposals must be cost-effective & utilities must share the risks associated with the new technologies & the benefits used to justify the investment. Investments in Smart Grid need to be verifiable & transparent and the utilities need to be held accountable for the costs they want customer to pay and the benefits they promise to deliver. Costs must be reasonable and prudent.
- Time-of-use or dynamic pricing must not be mandatory; consumers should be allowed to opt-in to additional dynamic pricing options.
- Regulators should assess alternatives to smart meters to reach the same load management goals, particularly direct load control programs.
- Smart meter investments should result in enhanced levels of consumer protections, especially relating to the implementation of remote disconnection

[14] http://crai.com/uploadedFiles/Publications/CRA-Reliability-Assessment-of-EPA's-Proposed-Transport-Rule.pdf
[15] www.census.gov/population/www/censusdata/files/table-2.pdf
[16] www.citizen.org/documents/W&Mtslocum.pdf
[17] www.citizen.org/documents/EnergyInvestmentForumPres.pdf

- Privacy and cyber-security concerns must be addressed prior to a smart meter rollout.
- Utilities & policymakers must include comprehensive consumer education & bill protection programs in any evaluation or implementation of smart meter proposals.
- System reliability, and integration of distributed renewable generation and plug-in electric cars do not yet require mandatory smart meter installation in every household. Roll them out on an opt-in basis for those households on the "smart" end of the digital divide – and let's invest in the corresponding infrastructure incentives to allow working families to "catch up."

**Protecting Consumers Must Be Priority #1**

Any discussion of electric power markets must include FERC reform. The agency has been consumed with important initiatives like transmission rate incentives and demand response, which has come at the expense of adequate focus on enforcement that all electric rates be "just and reasonable."[18] Not only are dysfunctional wholesale electricity markets problematic for consumers, but the lack of transparency threatens the effectiveness of potential carbon-pricing plans[19]. In a recent presentation, Public Citizen suggests three solutions for FERC to pursue[20]:

- Open a full investigation into allegations that electric rates in organized markets are unjust & unreasonable.
- Organizations representing household consumers must have full and equal representation in RTO governance.
- Establish an office of consumer advocate with intervener funding at FERC.

**Conclusions**

Electricity policy faces enormous challenges—three different federal agencies (EPA, DOE, FERC) and 10 Congressional committees wrestle with oversight over electricity markets, new generation sources, air and water emissions issues, and energy efficiency initiatives. Resolving the current political stalemate requires an acknowledgement that maximizing investment in a decentralized electricity structure has to be a significant part of policy going forward.[21]

[18] www.energyvox.org/2011/01/25/reforming-ferc/
[19] www.synapse-energy.com/downloads/cap-and-trade.pdf
[20] www.citizen.org/documents/RecommendMarketReform.pdf
[21] www.elpr.org/2010/01/promoting-locally-owned-renewable-electricity-generation-and-effective-energy-efficiency-investments-for-households-the-case-for-feed-in-tariffs-and-property-assessed-clean-energy-bond/