Climate and Energy Policies in view of the U.S. Presidential Elections 2008

Green Power on the Rise: The Future of Renewable Energy Policy in the United States

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On October 3, 2008, the 110th Congress finally passed the renewable energy tax package by attaching it to the Emergency Economic Stabilization Act of 2008 (the $700bn "bailout bill"). Despite the turmoil on Wall Street, U.S. clean energy and climate advocates breathed a collective sigh of relief when they finally saw these vital tax credits extended after an arduous journey that involved seven votes in the House of Representatives and 10 votes in the Senate.

Federal renewable energy policy in the United States has had a long and complex history. The struggle to pass the renewable energy tax package illustrated the diverse set of interests and actors that have battled over the government's role in supporting renewable energy ever since the creation of the Department of Energy in 1977. Unfortunately, with every political change in Washington came a new approach. Jimmy Carter installed the first solar panels on the White House roof in 1979, and Ronald Reagan took them down in 1986. In 1993, Bill Clinton initiated the Partnership for a New Generation of Vehicles, a collaboration between government laboratories, universities, and automakers to increase fuel efficiency through practical technologies. Then, in 2001, George W. Bush scrapped the PNGV in favor of his FreedomCAR initiative, which initially focused on the far-off technology of hydrogen fuel-cells before shifting more recently to plug-in electric vehicles. Even within the same administration, renewable and "clean" energy research and development suffered the ebb and flow of the political tides and budget considerations. These irregularities in federal renewable energy policy over the past 30 years have prevented precisely the kind of long-term consistency every new technology needs in its formative years.

External factors have played a role as well. During the eight years of the Clinton-Gore administration, world oil prices hovered around or even below $20 per barrel (in 2006 dollars), and global supply was stable, giving little incentive to develop alternative fuels. Also, coal and natural gas for electricity generation have been cheap, domestic, secure, and politically popular, despite emerging concerns over the evidence of their contribution to global warming.

Times have changed. Enormous volatility in the world oil markets, which saw a barrel of crude reach over $140 per barrel this past summer, has spurred a national frenzy to diversify our liquid fuel supply and wean the transportation sector off of oil. Prices for coal and natural gas have skyrocketed. Furthermore, the role of anthropogenic emissions in causing global warming is no longer disputed, and politicians, influential thought leaders, and the American public are all now calling for deep emissions cuts to mitigate the most serious consequences.

Yet the future trajectory of U.S. renewable energy policy will not be solely based on reactive responses to the dual crises of energy security and global warming. Throughout the country, a positive "green investment" agenda is taking root. Forward-thinking elected officials, cutting-edge entrepreneurs, and Fortune 500 CEOs are all pursuing the promise of the clean energy future as an extraordinary opportunity to reinvigorate a sputtering economy through investment in clean, sustainable, low-carbon energy sources. Indeed, the transformation of our antiquated energy infrastructure around the platforms of efficiency and reduced carbon emissions represents perhaps the greatest engine of innovation, economic growth, and job creation in the coming decades.

This "energy opportunity" agenda is not a vision for the distant future. Today, diverse localities across the country are using green development strategies to make impressive strides in job creation, consumer energy savings, and environmental sustainability. Thus far, it has been states and municipalities taking the lead. But this proactive green investment agenda, combined with the vital need for energy diversification, security, and emissions reductions will, with the appropriate leadership, be the cornerstones of sustained federal investment in renewable energy in the next administration and beyond.

States leading the way

In the absence of dependable federal leadership on renewable energy policy, states have taken the lead. A total of 33 states have set "renewable electricity standards" (27 mandatory and 6 voluntary) specifying that utilities generate a certain percentage of electricity from renewable sources by a given date. The majority average around 15 to 20 percent by 2020, yet some are quite ambitious (California is requiring 20 percent renewable electricity generation by 2010). Currently, over 50 percent of the U.S. population is covered by a renewable electricity standard.

The list goes on. Thirty-nine states have incentives or mandates in place to promote ethanol and biodiesel; 17 state governments are purchasing a certain percentage of renewable energy; and 44 states have some sort of net metering policy in place, allowing electricity produced from on-site distributed energy systems (like rooftop solar photovoltaic cells) to be "sold" back to the utility or credited to the customer's account.

From a climate perspective, states have also filled the leadership vacuum left by the federal government, as explained by Barry Rabe in his recent article for the TCPG Election Series (http://www.boell.de/climate-transatlantic/index-115.html). The Regional Greenhouse Gas Initiative, covering 10 states in the Northeast and Mid-Atlantic regions, recently raised nearly $40 million in the nation's first cap-and-trade emissions credit auction—money that will be spent on renewable and energy efficient technologies.

Progress at the federal level

The passage of the Energy Improvement and Extension Act of 2008 (the renewable energy tax package) as part of the "bailout bill" legislation was an important—albeit incremental—step forward for renewable energy production nationwide. The federal Renewable Electricity Production Tax Credit, or PTC, is a per-kilowatt-hour tax credit for electricity generated by qualified renewable energy resources. This credit has proved vital—especially for wind—in helping level the playing field and making renewable energy cost-competitive with fossil fuel-based electricity generation. Yet unlike in Europe, where incentives have been structured over the long term, the PTC has traditionally been extended for only one to three years, depending on the technology, making it difficult for renewable energy projects in their early stages to plan ahead.

Also extended was the investment tax credit, or ITC, for solar installations. The ITC extends for eight years the 30 percent tax credit for both residential and commercial solar investments,

eliminates the $2,000 monetary cap, and allows utilities and alternative minimum tax filers to benefit from the credit. The bill also authorizes $800 million in clean renewable energy bonds, or CREBs, to help state, local, and tribal governments, public power providers, and electric cooperatives finance projects that generate electricity from renewable resources. CREBs are issued with a 0 percent interest rate, and the borrower pays back only the principal of the bond. The bondholder receives federal tax credits in lieu of the traditional bond interest. CREBs are an innovative, low-cost mechanism to assist public entities in financing the up-front cost of their investments in renewable energy.

The renewable energy tax credits, along with the ambitious Renewable Fuels Standard passed in the Energy Independence and Security Act of 2007 (36 billion gallons by 2022), represent the two current pillars of federal renewable energy policy in the United States. However, things are about to change. Regardless of who occupies the White House in 2009, a host of major policies are in the pipeline.

Policy scenarios in 2009

The elections in November 2008 will determine the exact nature, scale, and timeframe of new federal renewable energy legislation. It is fairly certain that the Democrats will increase their congressional majority in both houses of Congress, perhaps even coming close to achieving a filibuster-proof 60-seat majority in the Senate.

The current Democratic leadership of House Speaker Nancy Pelosi (D-CA) and Majority Leader Harry Reid (D-NV) has elevated energy to a top-tier priority for the next Congress. Within the first 100 days it is likely we will see a new energy bill that features a national Renewable Electricity Standard, which will most likely be 15 percent by 2015. Many climate and energy advocates are strongly pushing for 25 percent renewable electricity by 2025, but the likelihood of this passing depends on the ability of the next administration and congressional leadership to gain votes from a sizeable number of senators who, for a variety of reasons, have thus far been reluctant to support such an ambitious target.

One possible way to generate support for a sizeable Renewable Electricity Standard will be to complement it with a proposal for a major investment in a national renewable transmission grid, in order to bring remote renewable resources like wind and solar online and link them to urban and industrial demand centers. Facilitating the integration of this utility-scale wind and solar, as well as demand-side energy efficiency, will require another major infrastructure investment in the deployment of digital smart grid technology. This proactive green investment package will appeal strongly to elected officials looking for ways to help stimulate a sluggish economy and create good jobs in the process.

National renewable energy payments, in Europe better known as feed-in tariffs, are another policy instrument that has gained traction in Washington. Interest in renewable energy payments is fueled in part by their success in increasing renewable energy production in European countries, such as Germany and Spain. Congressmen Jay Inslee (D-WA), an influential Democrat in the energy and climate policy discussions, is a major backer of renewable energy payments, which guarantee distributed renewable energy interconnection access to the electricity grid, and a premium rate

designed to generate a reasonable profit for investors over the long-term. While it might be difficult to pass this legislation in times of financial turmoil, the concept would provide exactly the kind of long-term commitment and investment incentive that has successfully fostered renewable energy development in other countries.

The likelihood of Congress promptly passing a major piece of global warming legislation is slim. Major political hurdles remain to be resolved. The labor unions are resolute—and justified—in their concern over emissions and jobs leakage, and are negotiating complex deals for boarder tax adjustments and worker transition assistance in any climate bill. Meanwhile, politicians from major industrial states worry about the impact on their home industries from any emissions cap that does not include developing countries like China, India, Mexico, and Brazil.

However, the next president will be under enormous international pressure to bring the United States back into negotiations for a successor treaty to the Kyoto Protocol, as explained by Elliot Diringer in his recent piece for the TCPG Election Series (http://www.boell.de/climate-transatlantic/index-117.html). In order for the United States to be effective in Copenhagen and bring other countries on board (especially developing countries), it will have to have shown a good faith effort to reduce domestic greenhouse gas emissions, whether cap-and-trade legislation has passed or not.

Different visions of the presidential candidates

Ultimately, the future of U.S. renewable energy policy will depend on the next president. Both Barack Obama and John McCain are cognizant of the need to diversify our energy supply and reduce global warming pollution. Yet there are major differences in their approaches. Obama supports a national RPS of 10 percent by 2012, and 25 percent by 2025. McCain makes no mention of an RPS on his website or campaign speeches, has opposed such a policy as a senator, and has voted consistently against extending the renewable energy tax credits. Obama plans to invest $150 billion over the next 10 years in renewable energy research, development, and deployment to build a clean energy future and create 5 million "green jobs." McCain calls for a $2 billion investment in "clean coal" technology (carbon capture and storage), and for the construction of 45 new nuclear plants by 2030—a nearly impossible and fantastically expensive endeavor.

On climate change, John McCain deserves credit for breaking early from the Republican party's opposition to emissions caps. Yet he has been much less vocal than Barack Obama on the urgent need to cut emissions. And his climate plan calls for reductions of 60 percent below 1990 emissions levels by 2050, falling short of the 80 percent reductions deemed necessary by the global scientific community. Meanwhile, McCain's dogmatic pursuit of new oil drilling as a solution to America's energy security concerns is unrealistic, and incompatible with the need to cut greenhouse gas emissions from fossil fuels.

Yet perhaps the most significant difference between the two candidates involves their vision for the future. McCain appears stuck in the technologies of the 20th century, calling for an expansion of oil drilling and nuclear energy. Obama, on the other hand, seems to understand that the transition to a low-carbon economy represents an extraordinary opportunity for innovation, economic growth, and job

creation in the coming decades. This is even more the case because the consequences of *inaction*—from a climate, energy, national security, public health, and economic perspective—forebode substantial costs for the country's future.

Obama also recognizes that this transition has a socioeconomic equity dimension as well. It can be structured to ensure that green economic growth be a tide that lifts all boats—especially those of the most marginalized individuals and communities—and reinvests in strong rural and urban fabrics. Examples include his proposals for rural wind farms, advanced biofuel production, green job creation, and weatherizing 1 million low-income homes. Obama sees the potential for America to revitalize its beleaguered manufacturing base around green technologies for export to a carbon-weary world. And, in an era beset by high unemployment and stagnant wages, the green economy can offer pathways out of poverty, skills training, and career ladders in the high-paying trades and green industries of the future.

Finally, Obama also possesses the leadership and oratorical capabilities needed to persuade Americans to rise to the occasion, much like John F. Kennedy did when he announced the Apollo moon mission. The nation is ready for a major investment in the low-carbon infrastructure necessary to revitalize the economy, tackle global warming, and improve the quality of life of current and future generations. Moreover, the unprecedented nature of the $700 billion financial bailout has provided a window of opportunity for our elected leadership to propose a clean energy initiative at the scale necessary to address the challenges we face. On November 4, the American electorate will make a historic decision that could potentially chart a new trajectory for the country and the world.

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Bracken Hendrick's and Benjamin Goldstein's commentary is the third in a new series on energy and climate policies in view of the U.S. Presidential Elections 2008. The Transatlantic Climate Policy Group is run by the *Heinrich-Böll-Stiftung* and is a two year program that aims at fostering transatlantic dialogue and cooperation on climate and energy policies. For more information visit www.boell.de/climate-transatlantic/index.html or contact Arne Jungjohann (arne@boell.org) and Till Kötter (till@boell.org).