

ENERGY POLICY AND THE OBAMA ADMINISTRATION: SOME CHOICES AND CHALLENGES

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I appreciate the invitation from my colleagues at Jackson State University and at Mississippi State University. These two universities will perform a valuable service to Mississippians, and to the whole country, if they contribute to broad public discussion of some of the energy policy choices and struggles that are to be expected around this new Administration. I count it a particular privilege to appear before you all, and hope that some of my reflections may make a contribution.

Before I get to my main theme, I would offer a foreword on the stimulus and the Department of Energy.

I. A FOREWARD ON THE STIMULUS AND ENERGY POLICY

A week ago today, the President spoke at Georgetown University in Washington, D.C. Among other things, he referred to the stimulus legislation and said

[t]he investments we made in the Recovery Act will double this nation's supply of renewable energy in the next three years. And we are putting Americans to work making our homes and buildings more efficient so that we can save billions on our energy bills and grow our economy at the same time.

Under the legislation, the Department of Energy is responsible for spending \$16.8 billion classified as follows: Weatherization (\$5.0 billion), State Energy Program (\$3.1 billion), Advanced Batteries Manufacturing (\$2.0 billion), and Energy Efficiency and Renewable Energy (\$6.7 billion). Another \$16 billion is classified as Environmental Management (\$6.0 billion), Smart Grid and related programs (\$4.5 billion), Fossil Energy R & D (\$3.4 billion), Science (\$1.6 billion), and APRA-E (\$0.4 billion).

While the stimulus bill provides a glimpse into the Administration's overall plan, there are many components of Energy Policy for the next four years. It is

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1. Transcript, *Obama's Remarks on the Economy*, N.Y. TIMES, Apr. 14, 2009, available at http://www.nytimes.com/2009/04/14/us/politics/14obama-text.html?_r=1&pagewanted=print. [hereinafter, *Obama Georgetown Address*].

important to focus on: (1) a summary of the President's energy program as it has been outlined so far; (2) the President's energy leadership team; (3) where the President's program is notably different; and (4) five issues where the political struggles may occur and political adjustments will have to be made, defeats encountered, or victories achieved.

II. THE OBAMA ENERGY POLICY IN SUMMARY

In the remarks as prepared for delivery at Georgetown University, the President said:

[t]he third pillar of this new foundation is to harness the renewable energy that can create millions of new jobs and new industries. We all know that that the country that harnesses this energy will lead the 21st century. Yet we have allowed other countries to outpace us on this race to the future.²

It is not altogether clear which countries and what market-successful technologies the President refers to, so far as energy is concerned, though the German example in pushing wind energy may be one case. I have not studied the world-wide approach to solar energy, but I do take note of a recent article in *Oil & Gas Journal*. Saudi efforts on solar are also noted, with the expectation that by 2020, "solar thermal-produced power will be competitive with traditional fossil fuels."³

But the President's tone was clear.

"I do not accept a future where the jobs and industries of tomorrow take root beyond our borders. It is time for America to lead again."⁴

The President took an unequivocal position that seems to show where his energy program will begin:

[t]he only way to truly spark this transformation is through a gradual, market-based cap on carbon pollution, so that clean energy is the profitable kind of energy. . . . We can no longer delay putting a framework for a clean energy economy in place. That's how we can grow this economy, enhance our security, and protect our planet at the same time.⁵

III. PRESIDENT OBAMA'S ENERGY LEADERSHIP TEAM

The White House has lined up to play a key role, as evidenced by the appointment of an Assistant to the President for Energy and Climate Change. That is Ms. Carol Browner, who used to be Administrator of the Environmental Protection Administration. On April 13, Ms. Browner reportedly gave a speech at the Massachusetts Institute of Technology that stated a clear policy goal. "Climate czar Carol Browner said she wants Congress to establish a broad U. S. greenhouse gas policy before global climate-change talks near the end of the year."⁶

2. *Id.*

3. Justin Dargin, *Saudi, UAE Promote Energy From Sun and Wind*, OIL & GAS JOURNAL, March 23, 2009, at 18-22.

4. *Obama Georgetown Address*, *supra* note 3.

5. *Id.*

6. Mark Peters, *White House Seeks Bill on Climate by December*, WALL STR. J., Apr. 14, 2009, at A3.

It is important to note that she was speaking one day before the President's Georgetown speech, and that she was anticipating hearings scheduled for this week in the House Committee on Energy and Commerce. Clearly Ms. Browner presumably will be an actor of major importance in setting policy priorities.

In addition, there are agency points of view and experience. The policies on energy come from more than the White House and the Department of Energy, and are especially influenced by the Environmental Protection Administration, the U. S. Department of the Interior, the Treasury Department, the Nuclear Regulatory Commission, and the Federal Energy Regulatory Commission, among other agencies.

The role of these agencies on energy policy was evidenced early in the Administration in the confirmation hearings. The newly installed Secretary of the Interior, until recently a United States Senator from Colorado, Ken Salazar, heads the Department that controls where oil is produced on Federal domain properties. Senator Robert Menendez (D. NJ) provided an opening:

I want to ask you an overarching question. I've heard you talk about energy, both as a member of this committee and in this new assignment. How do you see your role in this galaxy of energy advocates—how do you see the role of Carol Browner versus the role that you are going to play? What role do you see yourself playing in this respect?⁷

Secretary Salazar replied:

[w]ith respect to your specific question on my role, you know, my conversation and my agreement with the President-elect is, I report to him. The President-elect asked me to leave this U. S. Senate post to help him change the world. I believe he can change the world and I believe he is a transformational figure that can help get that done. But, I work for him. That means I will play a keystone role in helping to craft the energy agenda. I would not have taken this job if I was not given the assignment to help craft the moon shot that we will take. . . .⁸

Secretary of Energy Steven Chu, a Nobel Prize physicist, appeared before the Senate Energy and Natural Resources Committee one week before Inauguration Day.

In his confirmation testimony, Dr. Chu referred to the element of President-elect Obama's plan. He began with "greater commitment to wind, solar, geothermal, and other renewable energy sources." Presumably the "other" sources include biomass. In addition, he referred to: appliance and building efficiency; more efficient cars and trucks, and "a push to develop plug-in hybrids"; carbon capture and storage technology; continued commitment to nuclear and long-term plan for waste disposal; responsible development of domestic oil and natural gas; increased commitment to research and development of new energy technologies; smarter, more robust transmission and distribution; and cap and trade to reduce greenhouse gases.⁹

7. Committee On Energy and Natural Resources, U.S. Senate, 111th Cong., Hearing to Consider the Nomination of Ken Salazar to Be Secretary of the Interior (2009) [hereinafter *Salazar Confirmation*].

8. *Id.*

9. Transcript, *Steven Chu Confirmation Hearing*, THE WASHINGTON POST, Jan. 14, 2009, available at http://www.washingtonpost.com/wp-dyn/content/article/2009/01/19/AR2009011901107_pf.html [hereinafter, *Secretary Chu Confirmation Hearing*].

IV. WHERE THE OBAMA ADMINISTRATION'S EMPHASIS IS TRULY DIFFERENT

Whether we agree with the President's program, or disagree with it, it is a fundamental step away from the emphases of previous Administrations, an observation made with no disrespect to any previous Administration.

Energy policies in the past have emphasized increasing or maintaining physical supply by production, achieving the same supply results by conservation (an emphasis added by President Carter). They have also dealt with dealing with the waste side effects of the energy that we all use. Air pollution control is one of the attempts to deal with side effects.

The Obama Administration makes a break with the past in its explicit attempt to shift from oil to electricity and to escape from "foreign oil." In actuality, this more precisely means Middle East oil and Venezuelan oil, or oil from countries deemed politically adverse in some way. No one seems to propose cutting off Canadian oil (18.2% of our imports), Mexican oil (11.4%), or Nigerian oil (8.4%).

V. FOR THE OBAMA ADMINISTRATION THERE ARE FIVE AREAS WHERE POLITICAL STRUGGLE SEEMS LIKELY

Early in the first few months of the Administration it appears that the five main issues are (a) a cap and trade approach to climate legislation, (b) renewable energy, with the associated problem of high voltage transmission, (c) oil and gas drilling in the Outer Continental Shelf, (d) civilian nuclear power production and waste disposal, and (e) coal usage and the question of carbon capture and sequestration.

A. *Cap and Trade*

The President, I repeat for emphasis, chose to frame cap-and-trade as a means to "close the pollution loophole" and create a market favorable to renewable energy. In this respect, the President may have bridged the gap of conflict that has so long existed between environmental protection (now transformed into "climate") and economic growth. In any case, there is virtual certainty of major debate on cap and trade legislation, as the President has committed himself, as recently as his speech a week ago.

In any event, the debate is coming. The Chairman of the Committee, Rep. Henry Waxman of California, defeated the long serving Chairman, John Dingell, in a takeover that some media reported as having been supported by Speaker Pelosi and others in the House leadership.

Chairman Waxman co-sponsored the Waxman-Markey bill, which "introduced late last month would put in place a cap-and-trade market to reduce carbon dioxide emissions, while requiring that an increasing share of U.S. electricity come from renewable sources such as wind and the sun."¹⁰

The cap-and-trade concept actually comes from microeconomic theory. It is seen as an alternative to direct regulation, in which, each firm would be given its carbon dioxide allowance, equal to its discharges into the atmosphere. Thereafter, those firms that managed to come in under the cap would have

10. Peters, *supra* note 8.

excess room which they could sell to other firms that needed the excess room. The idea is that having to pay for pollution would give a firm motivation to cut pollution in some way, including going to the use of clean energy.

The cap-and-trade issue was already debated intensely in the United States Senate in 2008. The particular bill, known as the Lieberman-Warner bill (for Senator Joe Lieberman and Senator John Warner) got forty-eight votes to thirty-one against. Neither Obama nor McCain voted for the bill, though each said he would have voted for it.

Some Massachusetts Institute of Technology scholars wrote an assessment of several bills that were pending in Congress in 2007. According to their abstract, two sets of bills (Bingaman-Specter and Udall-Petri) would have kept US emissions near the current levels. Others (Lieberman-McCain, Feinstein, Kerry-Snowe, Sanders-Boxer, and Waxman) would have specified reductions goals of fifty percent to eighty percent below the 1990 level by 2050. In 2007, the US emissions were about fifteen percent above the 1990 levels.

All such legislation seems to reside on the belief that global climate change is occurring, as a result of the side effects of human use of energy. The belief in climate change, in the reasons for climate change, and in the policies that ought to be adopted are not, however, uniform amongst the people to claim to speak with technical authority.

Apart from scientific issues, there are a variety of economic and political issues. Sen. Bob Corker (R. TN) advocates, at least for the sake of argument, that if carbon is the problem there should be an explicit carbon tax, rather than something as complicated as cap-and-trade. Cap-and-trade is also an interest group problem, in that some industries are heavier polluters and do not wish to have to buy allowances. The biggest issue of all is from outside the United States. Will the Chinese and the Indians—both countries with large population and rapid economic growth—agree to accept for themselves the constraints that also are written into the various proposed American statutes?

B. Renewable Energy and Transmission

Renewable energy and the problem of new high voltage transmission. “Renewable energy” has a nice sound, as if each individual can take care of his or her own problem by attaching solar panels to his or her own house. That is not the main issue. When Secretary Chu refers to “greater commitment to wind, solar, geothermal, and other renewable energy sources,”¹¹ he refers in significant part to the ability to bring vast quantities of new power onto the electric grid. This means that the Obama Administration will have to pay much closer attention to an expansion of the high voltage electric transmission system. The main issue is posed by Senator Sanders of Vermont in the exchange with Senator Salazar during the latter’s confirmation hearing although it is not clear how much leadership the Department of the Interior will have with it.

I believe that that one of the technologies, of many that are out there, to move quickly to bring us clean, sustainable energy, is solar thermal plants. This

11. Secretary Chu Confirmation Hearing, *supra* note 9.

is a technology that, according to some experts, can take advantage of the fact that the Southwest has been called the “Saudi Arabia of solar energy.”¹²

“What are your feelings about the potential of solar thermal plants in the Southwest? What role can the Federal Government play, given this credit crisis right now, in pushing this technology forward in your judgment?”

Secretary Salazar replied:

The technology is there, as the National Renewable Energy Lab will tell you, and it is a technology that is moving quickly forward. But . . . we are not . . . simply striking out at something that is not proven. In my State alone . . . I spoke about the 10-megawatt power plant, in the San Luis Valley, which will grow to 100 megawatts. We both spoke about the 300-megawatt power plant in the deserts of Arizona, that Arizona Public Service is constructing. So, I think there is huge potential. I think that solar has got to be one of the crown jewels. . . as we move forward to creating this house of energy independence.”¹³

The Secretary then moved quickly to transmission. “It doesn’t do any good to produce the energy if you cannot get it to the places where it has to be used.” Transmission is already a key issue, even without new renewable sources.

In any case, the Obama Administration will have to face what it is going to propose on transmission policy, and it will have to face how to overcome the political opposition on this front.

For example, one interest group, the Energy Security Leadership Council led by Fred Smith, the head of FEDEX, which seems to have a number of retired general officers associated with it, has stated that “. . . Congress should grant the Federal Energy Regulatory Commission the same primary authority for high voltage electric transmission lines under the Federal Power Act that it already possesses for interstate natural gas pipelines under the Natural Gas Act.”

The reference is to the Natural Gas Act authority that the Federal Energy Regulatory Commission has the power to exercise eminent domain to build a natural gas pipeline. That was a product of World War II. FERC can’t do that on the electric side. Such legislation will probably have very tough opposition.

C. Offshore Drilling

The third subject on which a certain degree of political struggle is to be expected may be in offshore drilling. The Outer Continental Shelf (OCS), extending around the United States and outward for 200 miles, is administered by the Department of the Interior. Oil and gas firms lease properties for a period of years and, at their discretion, drill on them. There have been, however, both Presidential and Congressional moratoria on the OCS.

Questions on the Administration’s plans for the OCS were posed to both to Secretary Salazar and to Secretary Chu at the Senate Energy and Natural Resources Committee by two oil state Senators, Murkowski of Alaska and Landrieu of Louisiana.

In response to a question on oil production by Senator Murkowski, Secretary Chu said as follows. “The President-elect has said that looking at oil production and gas production both onshore and offshore as part of a comprehensive energy policy is something that he supports, and I also support

12. *Salazar Confirmation*, *supra* note 7.

13. *Id.*

that.”¹⁴ Dr. Chu did not make the point that leasing policy is not the domain of his Department.

Instead, he went to the merits of opening up the OCS:

But I should also say, Senator, as you well know, that the reserves of the United States are perhaps 3 per cent of the world’s reserves. I know the numbers from 2005. Something like 5 per cent of the world’s production of oil comes from the United States. So while it is important to fold into this the continued development of our oil and gas resources, one also should recognize those numbers. As you and I both agree, the more efficient use of energy in the United States is the one big factor that can most help us decrease our dependency on foreign oil.¹⁵

Senator Murkowski said “We certainly agree on that.” Senator Landrieu did not agree. When her turn came, the Senator said:

I listened with interest to your comments to Senator Murkowski about the known inventory in the United States of oil and gas and just wanted to point out that the emphasis is on the word “known” because we believe, many of us, that there are great resources that have yet to be discovered based on the fact that there has never been a comprehensive technology-driven inventory taken of oil and gas resources. So with so much off limit in the past and with limited access to just look, I would just urge you to be careful about the comment about 4 percent. It is true. We have 4 percent of the known reserves, but there is great evidence to suggest that there are lots of reserves that are unknown.¹⁶

The questions raised by Senators Murkowski and Landrieu suggest that in the near term there will be great pressure on the Administration to open opportunities for offshore drilling. Citizens and policymakers will also need to take into account that the Outer Continental Shelf is estimated to contain about 86 billion barrels of oil. That is a large number or a small number depending on how one evaluates it. That is a little over 2.8 times the total world production of 31 billion barrels.

Citizens and policymakers may also take note of the M. King Hubbert thesis, now increasingly respected by such experts as Matthew Simmons, which basically argues in geological terms that oil is declining more rapidly than many wish to admit.¹⁷ The Hubbert thesis used to invite scorn and fury, but has been accorded respect in *Oil & Gas Journal*.

D. Nuclear Power

The Obama Administration may have signaled a desire to move away from the very controversial issue of nuclear plant construction. This is an issue on which public opinion over a period of years had about two thirds of the population in favor and about one third against. It is also an issue over which no Administration has had complete authority. Plants are authorized and constructed on the basis of approval or disapproval by an independent regulatory

14. Senate Energy & Natural Resources Comm., *Hearing on Energy Secretary Nomination*, CSPAN, Jan. 13, 2009, available at <http://www.cspan.org/Watch/Media/2009/01/13/HP/A/14255/Senate+Energy+Natural+Resources+Cmte+Hearing+on+Energy+Secretary+Nomination.aspx> [hereinafter, *Energy & Natural Resources Comm. Hearing*].

15. *Id.*

16. *Id.*

17. Hubbert Peak of Oil Production, Experts: M. King Hubbert, <http://www.hubbertpeak.com/Hubbert/> (last visited Oct. 2, 2009).

agency. Agency decisions are subject to judicial review. Parties, notably the environmentalist parties, proved knowledgeable about technical and scientific issues and capable on legal issues in making the likelihood of easy approval very low.

In addition, the plants were built by private companies (utilities) who had to meet market criteria. These were among the many reasons that, for three decades, no new plants have been built. Another part of the problem of continuing political struggle concerns nuclear waste storage and nuclear recycling. Basically, uranium is mined, milled, converted into a gas called uranium hexafluoride (UF₆), and enriched. It is assembled in pellets and put in frames that are inserted into the nuclear reactor. In the reactor vessel it is used (burned) for a period of time to produce the heat that turns the turbine that turns the generator and produces the electricity. At the end of a designated period of time, the fuel assemblies are removed from the reactor and at that point they are radioactive to a lethal degree. At this point, they are “waste.”

No permanent solution for storage of the waste from civilian reactors has yet been devised. For many years, the waste storage issue has revolved around a proposed site in Nevada at Yucca Mountain. The dispute about Yucca Mountain was decided by the Secretary of Energy some years ago, but President Obama will not support it. No one could expect the President to approve a site that is opposed by the Majority Leader on whose cooperation he depends.

At the same time, the utilities have the right, under law also passed, to expect the Government to take the waste—which they are holding “temporarily” on their own premises—off their hands. Nuclear waste storage may turn out to be a major legal and financial issue, with the utility companies against the Government.

One approach is recycling which means reprocessing the spent fuel that has been in the reactor so as to get plutonium which can be used for power production but also can be used for weapons production. Without addressing the plutonium issue, I can speak directly to the rest of the reprocessing issue. More than thirty years ago, General Electric (GE) built a reprocessing plant at Morris, Illinois. It had contracts with a number of utilities whose spent fuel it would have taken. For purely technical reasons, one of the utilities with an interest in this plant was under our jurisdiction at the Wisconsin Public Service Commission. The question before the Commission was whether the cost of handling the waste should have been borne by the utility company’s ratepayers or by GE. All of the companies whose spent fuel would have been handled by the Morris plant were in the same straits.

In the confirmation hearing, Senator Jeff Sessions pressed hard to get Secretary Chu to “actually do the things necessary to see if we cannot restart a nuclear industry in America.”¹⁸ One of the issues was recycling. “France recycles. Japan is doing it. The Brits are talking about it. Russia, using basically the technology that we had.”¹⁹

Here is where Chu’s expertise as a physicist may be convincing:

18. *Energy & Natural Resources Comm. Hearing, supra* note 12.

19. *Id.*

The recycling issue is something we do not need a solution for today or even 10 years from today. I think we have to figure out a way to store that spent fuel safely, which is another critical issue in this, and then figure out a plan for long-term disposition.²⁰

To me that means that if the Nuclear Regulatory Commission can be counted on to do its job at the highest standard the nuclear option will meet the approval of the Obama Administration. That is what is implicit, as well, in Secretary Chu's repeated statement of the importance of nuclear generation as carbon-free power.

The Chu testimony, along with the advocacy of cap-and-trade, says that the Obama Administration is committing itself to the acceptance of nuclear generation while also waiting for large-scale wind generation and large-scale solar generation to come on line.

E. Coal Fired Generation – Sustained Use

Coal and what it takes to make coal use sustainable will also be a subject of some controversy. The continued use of coal is taken for granted, and Chu more than once cites the figure of fifty percent of electricity coming from coal. In dealing with the nuclear policy question, Chu said:

“We will be building some coal plants, and one does not have a hard moratorium on something like that while we search for a way to capture carbon and store it safely. It is very analogous in my mind.”²¹ There is a question of how the new Administration will think of new coal plants. The reality is that coal plants now function on the scale indicated. Companies may not have the demand that justify them, as a matter of business, in undertaking new plants, especially since signs of a secure recovery are far stronger than now. In addition, the question of clean coal will have to have serious treatment. Speeches, ads, and trade papers may refer to carbon sequestration. But in writing a paper on energy that was published three years ago,²² I had a very hard time finding credible reference sources on sequestration.

Secretary Chu is a far stronger witness. Thus he reports that very little is yet being done on the scale that would be required if carbon sequestration is to make coal burning safe and not in conflict with the goal of keeping added carbon from the atmosphere. He says simply:

“We are sequestering a few million tons of carbon per year. In the areas that I know about, it is being done safely, but there are many different geological sites that we have actually to test.”²³

VI. CONCLUSION

I have tried to put before you all my approach to thinking through the energy policy of the Obama Administration.

20. *Id.*

21. *Id.*

22. Matthew Holden, Jr., *Reflections on How Political Scientists (and Others) Might Think About Energy and Policy*, in *THE OXFORD HANDBOOK OF PUBLIC POLICY* (Robert E. Goodin ed., 2006).

23. *Energy & Natural Resources Comm. Hearing, supra* note 12.

The key is the President's decision to choose a framework for a clean energy economy. In this, the President marries the economic revival goal and the climate protection goal.

It will also be important how the President's energy leadership team works. The President cannot do it all personally and what I have elsewhere called—borrowing from Gordon Tullock—"bureaucratic imperialism" is a normal and healthy part of policymaking, not a sickness.

Through all these, there will be five key issues (cap-and-trade, renewables and transmission, offshore drilling, nuclear policy, and clean coal, especially sequestration) on the agenda for this Administration. The President appears to have committed himself, by his own words at Georgetown, to making climate change the key to the clean energy economy. By that commitment, the Administration has been committed to a less aggressive approach to short term energy supply problems. It is not clear how the Administration thinks of near-term gasoline shortages. Nor is it clear how seriously it thinks of large-scale blackouts of the sort that we have known within the past decade.

The issues to which I refer are all political, as well as economic-financial, legal, and technological, issues of consequence. Only those things that we can learn to manage in a political process can be productive for "energy policy." Sound policy, sustainable policy that does some good, has to be the integration of politics, economics, technology, and law. To overcome that problem is the special challenge for this new Administration. To find a way for citizens to talk rationally about these matters, not merely to shout prejudices, is also a task for citizens. I am grateful and respectful for Jackson State and Mississippi State having made one effort in that direction. I am equally grateful and respectful for your presence, your time, and your attention today.